BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM
CLINICAL PRACTICE POLICY MANUAL

MEDICAL SUPERVISION PLAN

OPERATIONAL GUIDELINES

ASSESSMENT AND DOCUMENTATION GUIDELINES

ADULT PATIENT CARE TREATMENT GUIDELINES

PROCEDURES AND SKILLS GUIDELINES

APPENDICES

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

OPERATIONAL GUIDELINES
PATIENT CARE TREATMENT GUIDELINES
CLINICAL PROCEDURES AND SKILLS

TABLE OF CONTENTS

Ronald Jackson MD

BCEMS Medical Director

SECTION 2000: ASSESSMENT AND DOCUMENTATION GUIDELINES

SECTION 3000: RESUSCITATION

Post Ressuscitation Management 3030-3039

139. 3030- Post Ressuscitation Care
140. 3031- Therapeutic Hypothermia

SECTION 4000: AIRWAY AND RESPIRATORY

Airway 4000-4009

142. 4000- Airway Management
143. 4001- Failed Airway
144. 4002- Respiratory Distress

Allergic and Anaphylactic Reactions 4010-4029

145. 4010- Allergic Reaction
146. 4011- Anaphylaxis

SECTION 5000: CARDIAC EMERGENCIES

General Cardiac 5000-5009

148. 5000- Chest Pain
149. 5001- Congestive Heart Failure
150. 5002- Hypertension, Hypertensive Crisis
151. 5003- Hypotension
152. 5004- Suspected Hyperkalemia

Acute Coronary Syndromes 5010-5019

153. 5010- ST Elevation Myocardial Infarction (STEMI)
154. 5011- STEMI Tool

Arrhythmia 5020-5029

155. 5020- Bradycardia
156. 5022- Narrow Complex Tachycardia (SVT)
157. 5024- Wide Complex Tachycardia (VT)

SECTION 6000: TRAUMA AND ENVIRONMENTAL EMERGENCIES

Trauma Guidelines 6000-6029

159. 6000- Multi-System Trauma
160. 6002- Suspected C-Spine Injury
161. 6010- Head Injury
162. 6014- Major Extremity Trauma
163. 6015- Simple Joint Dislocation

Environmental Emergencies 6030-6069

164. 6030- Burns
165. 6040- Hypothermia

166. 6050- Hyperthermia
167. 6060- Drowning

SECTION 7000: MEDICAL, NEUROLOGIC & OB/GYN EMERGENCIES

Neurologic Emergencies 7000-7029

169. 7000- Altered Level of Consciousness (ALOC)
170. 7002- Syncope
171. 7010- Suspected Stroke
172. 7020- Seizures

Medical Emergencies 7030-7079

173. 7030- Hyperglycemia
174. 7035- Hypoglycemia
175. 7041- Fever
176. 7050- Nausea, Vomiting and Diarrhea
177. 7060- Abdominal Pain

OB/GYN Guidelines- 7080-7089

178. 7080- Preeclampsia, Eclampsia
179. 7081- Childbirth/Imminent Delivery
180. 7083- Care of the Newly Born
181. 7085- Obstetrical Emergencies

SECTION 8000: BEHAVIORAL AND TOXICOLOGY EMERGENCIES

184. 8000- Behavioral Emergency
185. 8013- Overdose/ Toxic Ingestion

SECTION 9000: PROCEDURES

Airway 9000- 9019

188. 9000- Oxygen Administration
189. 9001- Pulse Oximetry
190. 9002- Capnography
191. 9003- CPAP
192. 9004- Carbon Monoxide Oximetry
195. 9005- Confirmation of Airway Placement- End Tidal CO_2 Detection
196. 9006- Preoxygenation for Advanced Airway Placement
197. 9007- i-Gel BIAD
198. 9008- Cricothyrotomy
199. 9009- Endotracheal Introducer (Bougie)
200. 9010- Foreign Body Airway Obstruction
201. 9011- Oral Tracheal Intubation
202. 9012- Nasotracheal Intubation

203. 9013- Medication Assisted Intubation (RSI)
204. 9014- Suctioning Advanced
205. 9015- Suctioning Basic
206. 9016- Nebulizer Inhalation Therapy
207. 9017- Nitrous Oxide Analgesia
208. 9018- Transport Ventilator Operation

Medication Administration 9020- 9029

210. 9020- Aspirin Administration
211. 9021- Subcutaneous and Intramuscular Injections
212. 9023- Oral Glucose Administration
213. 9024- Nitroglycerin Administration
214. 9025- Prescribed Inhaler
217. 9026- Glucagon Administration
219. 9027- Chempack Administration
222. 9028- Chempack

Cardiac 9030- 9039

224. 9030- 12-lead EKG
225. 9031- Cardiopulmonary Resuscitation (CPR)
226. 9033- Cardiac External Pacing
227. 9034- Cardioversion
228. 9035- Cardiac Defibrillation, Automated (AED)
229. 9036- Cardiac Defibrillation- Manual
230. 9038- Reperfusion Checklist

Medical 9040- 9049

232. 9040- Blood Glucose Analysis
233. 9041- Decontamination
234. 9042- Gastric Tube Insertion
235. 9043- Eye Irrigation
236. 9046- Physical Restraints
237. 9047- Temperature Measurement

OB/GYN 9050- 9059

239. 9050- Childbirth

Trauma 9060- 9069

241. 9060- Chest Decompression
242. 9061- Pelvic Sling
243. 9062- Spinal Immobilization
244. 9063- Splinting
245. 9064- Trauma Tourniquet
246. 9065- Shoulder Dislocation Reduction

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

Section 0000

Mission Statement Medical Supervision

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

MISSION STATEMENT

Bonner County EMS exists to safely and efficiently access, evaluate, stabilize and transport any patient anywhere in our county to definitive care. We will do this by interacting with the community and our teammates in a professional manner by using empathy and a constant drive for excellence.

E

Empathy… we understand that we are judged by how we act when we have contact with our customers both in emergencies and during the day-to-day events. We remember that we are here for them, and will strive to deal with everyone with *compassion* and an *understanding* of their point of view.

M

…being a **Model of teamwork**. All of our stakeholders, from individual volunteers to partner agencies have the same ultimate objective regardless of sometimes having slightly different ways of achieving it. We will apply a *genuine interest* in supporting each piece of the team and a *commitment* to accomplishing the task *collaboratively*. People we interact with will walk away feeling we have *integrity* and are making the small details work towards the big picture.

S

Striving for excellence… despite our size, or because of it, we will identify solutions that utilize all our varied resources *intelligently and responsibly* to provide the absolute highest level of care and service we can. We will constantly *reassess* our actions and help evaluate those of our partners so that our stakeholders and customers know they are being *listened* to and we are always looking to improve our abilities as *professionals.*

Ronald Jackson MD

BCEMS Medical Director

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

CLINICAL PRACTICE POLICY MANUAL

MEDICAL SUPERVISION PLAN

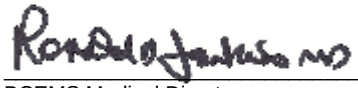
Bonner County EMS System
Medical Supervision Plan

Credentialing

1. The Medical Director of Bonner County EMS System is responsible for initial credentialing of all EMS Providers under his direction.
2. Credentialing is reviewed and/or renewed on an annual basis.
3. All records on EMS System Providers and the Bonner County EMS System will be maintained for 5 years.
4. Bonner County EMS System will provide documentation of all EMS System Provider EMS Bureau Certifications.
5. Bonner County EMS System will provide documentation of all EMS Providers that have met the necessary requirements in order to maintain affiliation.
6. Orientation for all EMS System Providers will be documented and include at minimum the following:
    a. Bonner County EMS System Policies, Procedures and Standards.
    b. Bonner County EMS System Operational Guidelines.
    c. Bonner County EMS System Patient Care Treatment Guidelines, Assessment and Procedural Guidelines.
    d. Radio communication procedures.
    e. Level of emergency response training.
7. The Medical Director is responsible for the credentialing of Bonner County EMS Providers including the Idaho Physician Commission approved Optional Modules for each level of certification.

Training

1. Documentation of continuing training will be provided to the Medical Director and the Idaho EMS Bureau.
2. Bonner County EMS System will provide training that is mandatory for all Bonner County EMS Providers.
3. Bonner General Health Emergency Physicians are requested to give feedback to Bonner County EMS System Medical Director on QA issues regarding any concerns for medical care delivered or omitted and use of protocols and guidelines, per the signed agreement with Bonner General Health.
4. National Incident Management System training will be completed by all EMS Providers.
5. Bonner County EMS Medical Director will reevaluate yearly standards of supervision and training for EMS Providers in accordance with the Idaho State EMS Bureau.
6. Medical Director may participate in ride a-longs to observe providers in action, as a routine, or as need in cases of mandatory remediation.
7. The Clinical Operations Officer will assure the clinical proficiency of Bonner County EMS System Providers through both cognitive and psychomotor evaluations. Training and evaluation of Bonner



8. County EMS Providers, including new Providers to the Bonner County EMS System, will follow the Idaho Physician Commission approved Optional modules for each level of certification. The Medical Director will have ultimate clinical oversight of the Optional Module training and evaluation process.
9. All Agencies providing EMS services within Bonner County must submit a written field training plan for the provision of training and supervision of all new Providers within the agency. An e-mail or letter to the Medical Program Director is requested to be sent as each new hire completes his or her training, and is deemed competent to be employed as an independent EMS Provider. **New Providers in any county agency affiliated with the Bonner County EMS system will not be considered to have EMS credentials until the Medical Director is notified of the Provider's new status and completion of training.**
10. A letter or e-mail is requested twice yearly from each agency to the Medical Program Director detailing any changes to the field training plan and including a list of all active agency EMS Providers, as well as any EMS Providers in the process of training (to be received by January 1 and July 1). **If a Provider is not on the list, he or she is not considered to have EMS credentials to provide emergency care in Bonner County**.

Optional Module Training

1. Optional Module Training Authorized by the Medical Director will be listed on the "Addendum to Medical Supervision Plan for Optional Modules", attached at the end of the Medical Supervision Plan. These will be updated once yearly.
2. It is our intention to offer the same optional modules to all members of the Bonner County EMS System, with the intention to bring all like Providers up to the same level of training.
3. Protocols and guidelines that include skills that require OM training, list these skills under the provider with the "floor skill", but indicate when additional Providers may perform this skill once credentialed with the required OM training.

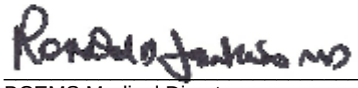
Off-line Medical Direction

1. Off-line Medical Direction includes all guidance of clinical activities provided by the Medical Director or his or her designee through
    a. Protocol and Guideline establishment and yearly evaluation
    b. QA/ QI activities
    c. Formal and informal teaching session
    d. All clinical training ultimately under the direction and supervision of the Medical Director or his/her designee.
    e. Questions and concerns and protocol clarifications that may be directed to the Medical Director by any Provider at any time.

On-line Medical Direction

1. On-line Medical Direction will be provided by Bonner General Health Emergency Physicians as directed and agreed upon within the agreement signed by BCEMS System with Bonner General Health.

Quality Assessment/Quality Improvement



1. Bonner County EMS System chief, Clinical Operations Officer, or designee will review all ALS cases and a minimum of 25% of all runs.
2. Medical Director will review all ALS cases and selected runs identified as worthy of review by the QA process.
3. Medical Director may request a written response from EMS Providers on a variety of issues, including but not limited to:
    a. Patient care issues
    b. Response time
    c. Documentation of patient care
    d. Level of emergency response appropriate for the patient
    e. Utilization of Air Medical Transport
    f. Canceling appropriate ALS back up, or inappropriate assessment of patient
4. Quality improvement actions include
    a. Mandatory attendance (in person or on-line) of all Providers at 25% of Monthly Bonner County EMS System QA/QI meetings.
    b. Problems identified from the QA/QI process involving quality of care may result in a remediation plan which will be developed by the clinical operations officer, and signed off by the Medical Director, Chief Clinical Operations Officer, and Provider in question.
5. Any issue of concern from Bonner General Health Emergency Physicians will be reported in writing to the Medical Director and include the involved EMS Provider, date, time, patient name, and nature of incident.
6. CQI meetings will occur every other month at the Multi Use facility in Sagle, unless otherwise notified. These meetings will generally be held at 9:00 AM (Jan/March//May/July/September/November) on the second Wednesday of the applicable month. Upon request, EMS
   Agencies that are physically more remote may have quarterly QA meetings at their respective headquarters or stations so that providers can attend the meetings without leaving their EMS territory uncovered.

Clinical Incident Review Process

1. Purpose:
To establish guidelines for reporting, reviewing, and resolving clinical incidents related to clinical skills performance of Providers within the Bonner County EMS System.

2. Definitions:

Medical Director - Ronald Jenkins, M.D. is responsible for the oversight of all medical practices adhering to the established clinical Guidelines published by the office of the Medical Director for Bonner County EMS.
Clinical Operations Officer – The EMS officer designated by the BCEMS Chief as the point of contact and coordinator for clinical incidents and quality improvement and organizing QA activities.
Informal Medical Review - A review of patient care where minor deviations from established patient care standards may have occurred. These deviations shall have had no known impact on patient outcome.

Ronald Jenkins MD

Formal Medical Review - A review of patient care where serious deviations from the standard of care may have occurred. Examples of such concerns include: repeated minor deviations from the standard of care resistant to improvement, deviations with a potential for negative impact on patient outcome, and deviations which had a negative impact on patient outcome.
Provider – Any individual who acts in the capacity of an emergency medical care provider in the BCEMS system.
Investigating Officer – The officer of any agency in the system that is assigned to conduct a formal and/or informal review of a medical care complaint/concern.
Critical Event – A case where the alleged action or lack of action on the part of the provider raise concerns about the individual's ability to function adequately as an emergency medical care provider. This can include cases where allegations of significant negligence are present.
Temporary Suspension to Practice – A non-punitive suspension of the provider's ability to function as an Emergency Medical Care Provider within the Bonner County EMS System.

3. Policy Statement:
Incident reviews are important tools for providing quality customer service to the community. They are designed to be teaching and learning experiences and are rarely punitive in nature. All parties are encouraged to participate with that approach in mind. Any member can report
patient care concerns regarding incidents that BCEMS Providers
respond to and provide medical care. This can include patients, hospital staff, firefighters, EMS Providers, citizens, etc. Input should be made in writing whenever possible (Whenever formal reviews with potential for disciplinary action are conducted, complaint/concerns must be in writing). Concerns from sources within the EMS system should be reported to the Clinical Operations Officer via an incident report. External customers (i.e. citizens or hospital staff) should contact the Duty Officer for that agency. The Duty Officer will then contact the Clinical Operations Officer after making initial contact or follow-up with the customer. The Clinical Operations Officer will determine whether or not the concern is a medical review matter. Complaints of a non-medical nature will be referred to the appropriate agency's officers for resolution. Most concerns can be resolved at a low level. Individuals are encouraged to address matters face-to-face whenever possible. If the concern is determined to be a medical matter, the Clinical Operations Officer will initiate an informal or formal review. Additional informal preliminary fact-finding may be conducted to help make this determination. This effort can include personal interviews and data collection. If the Clinical Operations officer feels at any time that a serious violation has occurred, more formal procedures shall be implemented.

4. Informal Quality Review:
An investigating officer with the appropriate knowledge level and experience to effectively review the case will conduct the informal review. The reviewing officer will contact the provider and or other providers involved with the incident. The reviewing officer will complete his/her investigation and report the findings to the Clinical Operations Officer in a timely fashion (two weeks). Recommendations for follow-up remedial actions, if any, should also be provided. It is expected that the reviewing officer

will conduct any appropriate counseling at the time of the review. The Clinical Operations Officer shall maintain a record of informal reviews and will routinely brief the Medical Director. Trends will be reported to the Agency Chief and Captains and a referral will be made to the Training Officer to devise a training resolution for the agency.

5. Formal Quality Review:
The Clinical Operations Officer will conduct the formal review. The investigating officer will research the incident. This effort may include interviews, patient follow-up, documentation review, etc. All information collected will be provided to the Medical Director. Based on the findings of the investigation, the Medical Director has the option to downgrade the matter to an informal review or arrange for a formal meeting with the provider to resolve the matter. A meeting of the provider, the investigating officer, Clinical Operations Officer, and the Medical Director shall conclude formal review. The Medical Director shall review all facts of the case and discuss the incident with the Provider. The Medical Director at his discretion, will determine the severity of the incident. If the concerns are determined to be unfounded, the case will be closed. For incidents where deviations have occurred, the Medical Director will recommend appropriate follow-up action based on the severity of the incident. These actions can include, but are not limited to, the following:
a. Counseling
b. Skills remediation, including additional field internship time
c. Classes related to deficient area
d. Assigned research project in deficient area
e. Recommendations for disciplinary action to the appropriate agency's Chief.
No disciplinary action will be given to Providers for having deficient skills provided they comply with remediation. This does not prevent disciplinary action due to negligent care. The Clinical Operations Officer will document the outcome of the review. The Provider will be notified of the findings in writing within two weeks. The Clinical Operations officer will ensure that the Provider completes any assigned actions. Recommendations for disciplinary action shall be forwarded to the appropriate agency's Chief.

6. Critical Event:
Any Provider who observes a critical incident should contact their
Duty Officer immediately. If this individual cannot be contacted, the Provider should notify the Clinical Operations Officer. An incident report must be completed and submitted to the Duty Officer. The Duty Officer shall initially try to resolve any conflict, but shall forward any critical incident to the Clinical Operations officer. In accordance with the Idaho Office of Emergency Medical Services' regulations, the BCEMS Medical Director may at his discretion remove a Provider's authorization to practice as an emergency medical care provider anytime he feels it necessary. This is a significant decision and requires serious consideration. Should
a critical event occur, the Clinical Operations Officer might find it
necessary to issue an immediate temporary suspension to practice until the matter can be fully reviewed by the Medical Director. All available information about the incident will be considered when making this decision. Based on the findings of the formal review, the Medical Director will recommend that the suspension be ended, continued for a specific time period, or made permanent.

Patient Care Documentation

1. Bonner County EMS System Providers will provide a PCR through electronic documentation via the ESO electronic patient record within 12 hours of the patient encounter.
2. A hard copy of the PCR must remain with the patient at the destination hospital.
3. An electronic copy of any PCR may be reviewed by the Medical Director at any time.
4. Cases that are deemed by any Bonner County EMS System Providers to warrant additional review must be submitted in writing with all other relevant patient records to the Clinical Operations Officer who will begin the critical incident review process.
5. Medical Director may ask for written communication from EMS Providers on any case for purposes of CQI.
6. All Agencies providing EMS care within Bonner County must provide access to all Agency PCRs to the Clinical Operations Officer for purposes of incident review and QA.

On-Scene Medical Supervision

1. If a physician is on scene at an accident or medical incident, he/she may assume medical control with the following conditions:
    a. On-line Medical Control must be informed.
    b. The physician must be made aware that on-line Medical Control is available and complete On-Scene Physician Release Form.
    c. The physician must accompany the patient to the destination hospital.
    d. EMS Providers can only provide patient care within their scope of practice.
    e. All documentation of clinical activity must be completed in the usual manner.

Equipment

1. Bonner County EMS System units will carry in inventory and maintain all equipment approved by Idaho EMS Bureau for their level of licensure. Any equipment omitted or added must be approved by the EMS Bureau and will be in conjunction with the appropriate Licensure Level, and approved by the Medical Director. Documentation of equipment or on-site inspection by the Medical Director must be available upon request.

Bonner County EMS System Plan

It is the intention and goal that BCEMS will be recognized as an EMS System such that all clinical facilities providing EMS care within the boundaries of Bonner County may be under the Medical Direction of a single Medical Director, although associate Medical Directors may be appointed to share in the duties of Medical Direction. It is the collective interest of the Medical Directors committee to have a single set of Patient Care Treatment Guidelines (protocols) and Procedures, to standardize care delivered within Bonner County.

The above Medical Supervision plan documents written for the Bonner County EMS System will be utilized by all County Agencies providing EMS Services (listed below) which have agreed to have their Medical Direction under the umbrella of the Bonner County EMS Medical Director. A signed contract or agreement must be in place between each County Agency and Bonner County EMS. **All EMS Providers, within a County Agency that fails to have a current contract or agreement, will be prohibited from providing EMS services within the County under the license of the County Medical Director, and the State of Idaho EMS Bureau will be notified of these suspensions.**

Ronald Jackson MD

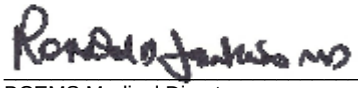
BCEMS Medical Director

Current Bonner County EMS Agencies under the Medical Direction of the Bonner County System Medical Director include:

Bonner County EMS, ALS Provider, Transport, Community Para-medicine
Clark Fork Valley Ambulance, ILS Provider, Transport
Northside Fire, BLS Provider, Non-Transport
Priest Lake Emergency Medical Technicians, Inc., ILS Provider, Transport
Sagle Fire, ILS Provider, Non-Transport
Sam Owen Fire, First Responder, Non-Transport
Sandpoint Fire, ILS Provider, Transport
Schweitzer Fire, ILS Provider, Transport
West Pend Oreille Fire, First Responder, Non-Transport
Westside Fire, First Responder, Non-Transport
Note: Sandpoint Fire, Sagle Fire and Westside Fire are collectively doing business as "Selkirk Fire and EMS"

Medical Supervision Plan Review

These plans for medical supervision of the Bonner County EMS System will be reviewed annually and signed off by the BCEMS Medical Director, BCEMS Chief, and any additional Medical Directors providing Medical Direction within Bonner County and or sitting on the Medical Directors Advisory Committee.



Medical Supervision Plan reviewed and approved:

Ronald D. Jenkins, MD FACC — date
BCEMS Medical Director

Jeffrey Lindsey — date
Chief, BCEMS

Vince Huntsberger, MD — date
Lake Pend Oreille Emergency Medicine
Bonner General Hospital Emergency Department

Section 1000

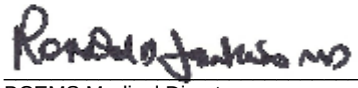
Operational Guidelines

OPERATIONAL GUIDELINES
PATIENT CARE TREATMENT GUIDELINES
CLINICAL PROCEDURES AND SKILLS

INTENTION AND DESCRIPTION

This manual is a compilation of guidelines used by Bonner County EMS System that describe and direct all clinical activities and delivery of EMS care within Bonner County, Idaho. These encompass 1) operational guidelines, 2) assessment and documentation guidelines, and 3) patient care treatment guidelines. We also describe the 4) procedures and skills necessary for EMS providers to assess, treat and transport patients, and the 5) medications that may be administered by our providers.

1. Operational guidelines include a description of the format for patient care treatment guidelines and protocols for procedures and skills. We describe the mechanisms for on-line and off-line medical control, and describe mechanisms for appropriate scene control, scene safety and resource management as necessary for efficient and effective delivery of patient care. We describe the medico-legal issues to be considered by our providers when confronting abuse, neglect, patient refusal and death.
2. Assessment and documentation guidelines describe appropriate patient contact, assessment, including vital signs, examination and documentation, including proper utilization of the patient care report (PCR).
3. Patient care treatment guidelines, commonly referred to as protocols, provide clinical pathways to guide our providers in uniform and efficient assessment and management of medical, surgical and trauma patients both in adults and children. We strive to provide nationally accepted pathways using evidence based medicine, adopted for the unique characteristics of Bonner County. Protocols are organized in a manner to be useful to multiple levels of providers from First Responder (EMR) through Paramedic levels of treatment.
4. We describe commonly used procedures and skills that our providers are expected to master and perform when medically necessary, and directed by patient care treatment guidelines and/or Medical Control.
5. All of the medications currently available to Bonner County EMS providers are described, segregated by levels of care required to administer these drugs according to State mandated scope of practice. We also include a brief description of these medications including appropriate indications, contraindications and dosing protocols.
6. Finally, it should go without saying that clinical situations will arise that will challenge any EMS provider, and not be appropriately addressed by any described protocol or guidelines. Both Off-line and On-line Medical Control can and should always be utilized for these situations.



BCEMS Medical Director
Effective: 07/01/19

PATIENT CARE TREATMENT GUIDELINE FORMAT

Indication For Specific Patient Care Treatment Guidelines

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Age ▪ Medications/ Allergies ▪ Past Medical History ▪ Recent physical exertion ▪ Palliation/provocation ▪ Signs/symptoms time, quality, severity, location and duration ▪ Prior to arrival treatment	▪ Symptom ○ Location ○ Radiation ○ Quality ○ Severity ○ Duration ○ Associated symptoms ▪ Time of onset	▪ Trauma vs. Medical ▪ Alternate diagnoses to consider ▪ Overdose

TREATMENT GUIDELINES

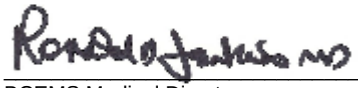
R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). ▪ Manage the patient's airway, breathing and circulation priorities. ▪ Follow general medical assessment guidelines. ▪ Treatment appropriate for EMR level provider.	R
▪ EMT Evaluation Procedures. ▪ Assist ALS with Procedures. ▪ Obtain and reassess vital signs every 5-10 minutes. ▪ Treatment appropriate for EMT level provider.	E
▪ Establish IV and consider establishing a second IV if time permits. Draw labs if appropriate. ▪ (**do not delay transport establishing an IV**). ▪ Consider additional treatment appropriate for AEMT provider	A[2]
▪ Higher level assessment procedure such as EKG interpretation. ▪ Determine Patient destination and transportation mode if not already done. ▪ Notify receiving facility ▪ Transport according to local EMS System Plan and contact Medical Control as appropriate. ▪ Administer medications generally given in this clinical situation. ▪ Additional medications to consider ▪ For additional symptoms, consider other Patient Treatment Guidelines. ▪ Further management decisions and Paramedic level treatment Procedures.	P[3]
▪ ** Additional medications authorized by On-Line Medical Control ** ▪ ** Additional management decisions to discuss with Medical Control **	M

[2]EMT and [3]AEMT providers may perform these procedures if credentialed with the appropriate OM.
Pearls:

This is where important pearls of information useful to the provider will be placed.
OK to split cells into two or three parallel pathways with arrows and decision trees.
QA Denotes parameters subject to BCEMS QA.



BCEMS Medical Director
Effective: 07/01/19

OPERATIONAL GUIDELINES (BLUE, BOLD CAPS, 18 PITCH, TIMES NEW ROMAN)

OPERATIONAL GUIDELINES FORMAT (BLACK, BOLD CAPS, 16 PITCH, TIMES NEW ROMAN)

SUBHEADINGS ALIGN TO THE LEFT (BLUE, BOLD CAPS, 14 PITCH, TIMES NEW ROMAN)

A. Outline format will be used for operational guidelines (lettered headings may be bolded)

1. 12 pitch,
   a. Black ink
   b. First letter capitalized
   c. 1., 2., 3., and a., b., c. lines not bolded in general
   d. Space before and after 14,16 and 18 pitch headings.
   e. Align longer sentences with body of text.
2. Times New Roman
3. Headers and footers will be 8 pitch, black, times new roman

B. Additional pages

1. Second pages will look like the first
2. EMS seal to be on all guidelines pages

HEADER AND FOOTER CONTENT

Header Content (Optional Subheading- black, bold, 12 pitch, Capital Case)

A. Identifying format

1. Center of page list guideline section i.e. “Operational Guidelines”
2. Center second line list subheading: Name of specific Guideline-1000
3. Number used refers to table of contents.

B. Bonner County EMS System

1. This is always listed lop left

Footer Content

A. Format

1. BCEMS Medical Director signature line and effective date lower left
2. draft or revision date lower middle
3. page # of n (total pages) lower right
4. signature line above all

QA Identify here certain activities that will be subject to BCEMS QA activity

PROCEDURES AND SKILLS FORMAT

Clinical Indications

- **Procedure for certain clinical indication listed here, as well as major contraindications.**

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Procedure and skills within scope of First Responder Provider ▪	R
▪ Procedure and skills within scope of EMT Provider. ▪	E
▪ Procedure and skills within scope of AEMT Provider. ▪	A
▪ Procedure and skills within scope of Paramedic Provider.	P
▪ ** Additional medications authorized by On-Line Medical Control ** ▪ ** Additional management decisions to discuss with Medical Control **	M

QA Parameters:

ADMINISTRATIVE ACKNOWLEDGEMENT OF GUIDELINES

OPERATIONAL GUIDELINES FORMAT
PATIENT CARE TREATMENT GUIDELINES
CLINICAL PROCEDURES AND SKILLS

CLINICAL PRACTICE POLICY MANUAL

The attached documents are hereby acknowledged as the sum total of the clinical guidelines, protocols and procedures that direct the clinical activities of Bonner County EMS System Clinical Providers, utilizing State of Idaho mandated, and nationally recognized protocols and guidelines. Our intention is that these protocols will be adopted by all EMS providers and agencies with Bonner County as a System, standardizing patient care delivery by EMS providers within Bonner County, Idaho. In witness whereof, the parties hereto have executed this acknowledgement to be effective as of 04/012020.

Ronald D Jenkins, MD FACC — date
BCEMS Medical Director

__Mark Croft, Paramedic Captain — date
BCEMS Clinical Operation Officer

__Jeffrey Lindsey, Paramedic — date
BCEMS Chief

__Vince Huntsberger, MD — date
Bonner General Hospital Emergency Department,
Chief of Medical Control, BCEMS

Ronald D Jenkins MD

BCEMS Medical Director

GUIDELINES FOR ALS UTILIZATION

A. Basic Life Support (BLS) and Intermediate Life Support (ILS) personnel should initiate patient care and transport to the level of their ability following applicable BLS/ILS patient care treatment guidelines. For the purposes of these guidelines, BLS personnel will include Emergency First Responders (EMR), and EMT Providers (EMT). ILS personnel will include Advanced EMT Providers (AEMT) and ALS personnel will include Paramedic Providers (P).

B. Basic Life Support and Intermediate Life Support providers may request an Advanced Life Support (ALS) provider to participate in patient care when the patient's clinical needs exceed their capacities or scope of practice. These conditions may include but are not limited to:

1. Altered level of consciousness/ syncope.
2. Anaphylactic reaction or severe allergic reactions, difficulty breathing or swallowing.
3. Cardiac symptoms/ cardiac arrest.
4. Multi-system trauma or severe single system trauma.
5. OB/Gyn (2nd or 3rd trimester bleeding or miscarriage).
6. Overdose/poisoning (associated with any other categories on this list).
7. Respiratory distress/ respiratory arrest.
8. Seizures/convulsions which are prolonged or ongoing.
9. Shock (hypoperfusion, hypotension, hypovolemia).
10. Stroke/CVA symptoms.
11. Severe pain.

C. If transport time by BLS/ILS to an appropriate receiving facility can be accomplished before ALS can initiate care, then the BLS/ILS transport service should transport as soon as possible and should not request or should cancel ALS.

D. BLS/ILS services should not delay patient care or transport while waiting for ALS personnel. If ALS arrival at scene is not anticipated before initiation of transport, arrangements should be made to rendezvous with the ALS service.

E. In the case of a long BLS/ILS transport time with a nearby ALS service coming from the opposite direction, it may be appropriate to delay transport for a short period of time while awaiting the arrival of ALS if this delay will significantly decrease the time to ALS care for the patient. When BLS/ILS transport time to a receiving facility is relatively short, this delay is not appropriate.

F. BLS/ILS personnel may cancel ALS provider response when the patient's needs are met by BLS/ILS capabilities.

G. Dispatch always needs to be notified of cancellations and availability for further calls of the ALS unit.

H. If at the scene of illness or injury, a bystander identifies himself or herself as a licensed physician or registered nurse, follow On Scene Medical Provider guideline (1041).

QA BCEMS will review the care and outcome of patients with "ALS" diagnoses who were treated and transported by BLS/ILS only providers.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

TRAUMA TRIAGE

ASSESSMENT CRITERIA FOR APPROPRIATE TRIAGE

A. Step One: Measure vitals and assess for physiologic compromise

1. Glasgow coma scale ≤13
2. Systolic blood pressure <90 mmHg
3. Respiratory rate <10 or >20 breaths per minute, or need for ventilator support

B. Step Two: Assess for specific anatomic injuries

1. All penetrating injuries to the head, neck, torso and extremities proximal to the elbow or knee
2. Chest wall instability or deformity
3. Two or more long-bone fractures
4. Crushed, de-gloved, or pulseless extremity
5. Amputation proximal to wrist or ankle
6. Pelvic fracture
7. Open or depressed skull fracture
8. Paralysis

C. Step Three: Assess for Mechanism of Injury

1. Falls
    a. Adults falling > 20 feet (one story equals 10 feet)
    b. Children falling > 10 feet, or 2-3 times the height of the child
2. High-risk auto accident
    a. Intrusion > 12 inches on occupant site, or 18 inches any site, including the vehicle roof
    b. Ejection (partial or complete) from automobile
    c. Death in same passenger compartment
    d. Vehicle telemetry data consistent with high-risk of serious injury
3. Auto vs. pedestrian or bicyclist thrown or run over, or with significant Impact (> 20 mph)
4. Motorcycle accident (>20 mph)

D. Step Four: Assess for Specific Patient factors

1. Age
    a. Older adults: risk of injury/ death increases after age 65 years
        - Systolic BP <110 might represent shock in an older person
        - Low impact mechanism (e.g. ground level falls) may cause severe injury in an older person
    b. Children: Should be triaged preferentially to pediatric capable trauma centers
2. Anticoagulation and bleeding disorders
    a. Patients with a head injury are at high risk for rapid deterioration
3. Burns
    a. Without other trauma mechanism, triage to burn center
    b. With trauma mechanism, triage to a trauma center
4. Pregnancy > 20 weeks

Ronald Jackson MD

BCEMS Medical Director

E. Logistics

1. Steps one and two attempt to identify the most seriously injured patients.
    a. These patients should be transported preferentially to the highest level of Trauma Center available within the system.
    b. Contact on-line medical control if incident is within the core response area or if the anticipated landing zone is BGH.
2. If criteria in steps one and two are not present, but patient does meet criteria in step three:
    a. Transport to closest appropriate hospital.
    b. Lower level trauma center may be acceptable.
3. If criteria in steps one, two and three are not present, but patient does meet criteria in step four:
    a. Contact on-line medical control.
    b. Consider transport to a trauma center.
    c. Consider transport to a specific resourse hospital (i.e. burn, peds etc)

F. Idaho TSE Trauma Priority levels

PRIORTY 1

SBP of 90 or less, respiratory rate <10 or >30, HR >130 AND meet Priority 2 or 3 criteria
Age specific hypotension in children : <70mmHg + 2x age), HR > 200 or < 60
Respiratory compromise/obstruction or endotracheal Intubation
Inter-facility transfer patients receiving blood to maintain vital signs
GCS 8 or less with mechanism attributed to trauma
Major limb amputation
Pregnancy >20 weeks gestation with leaking fluid or bleeding or abdominal pain
Open skull fracture
Paralysis of an extremity
Penetrating injury to abdomen, head, neck, chest or proximal limbs
Provider discretion*

PRIORITY 2

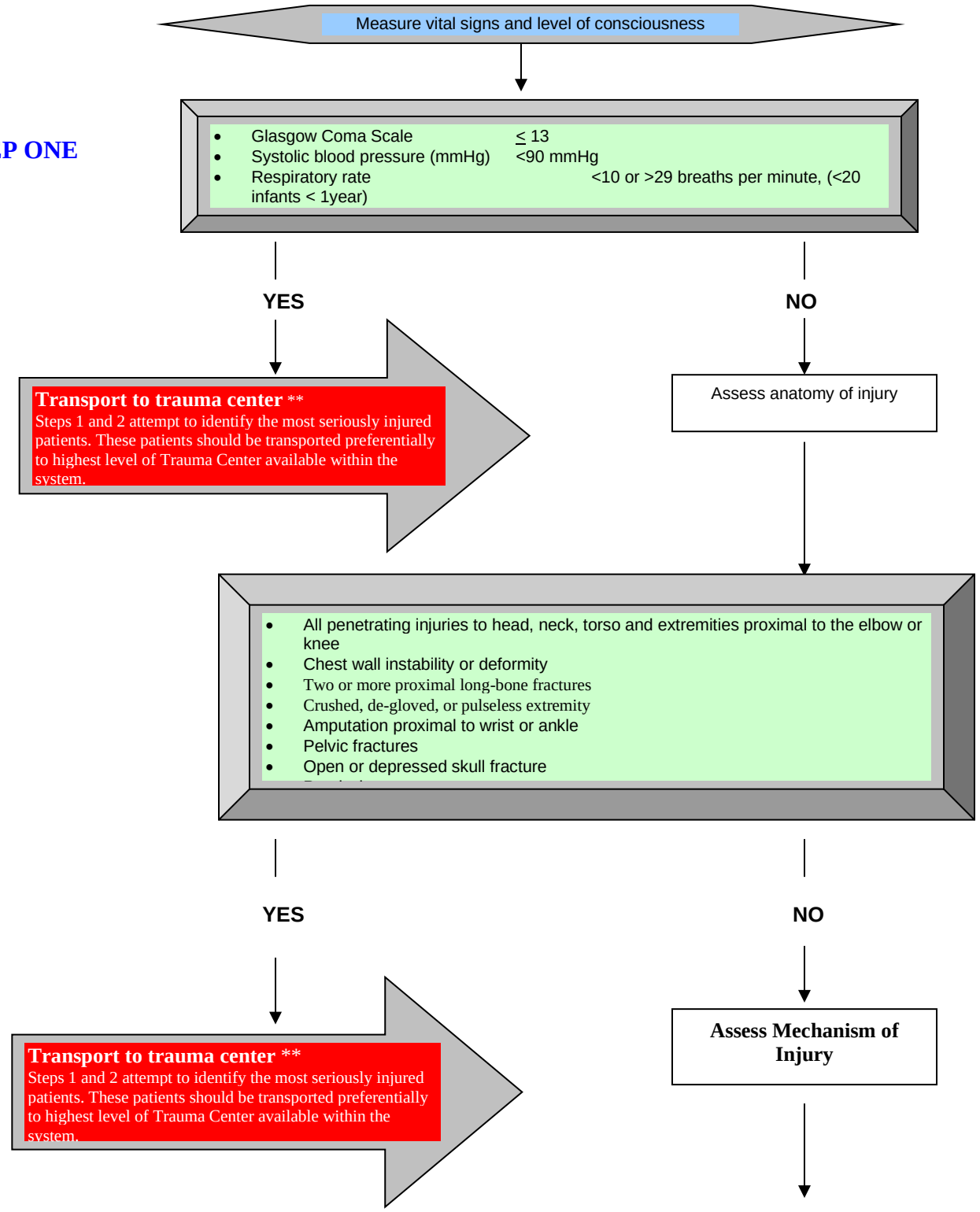
GCS 9 to 13
Chest tube/ needle thoracostomy
Pelvic fracture (suspected)
Two obvious long bone fractures (femur/humerus)
Flail chest
Submersion with traumatic mechanism
Ejection from ENCLOSED vehicle
Burns > 20% BSA OR involvement of face, airway, hands, or genitalia
Sensory deficit of an extremity
Provider discretion*

PRIORITY 3

Death of same car occupant
Extrication time > 20 min
Fall 2x patient's height
Auto vs. bike OR auto vs. pedestrian
Non-enclosed wheeled or mechanized transport > 20 mph
Horse ejection or rollover
12" intrusion into occupant space or
"Star" any window or windshield
Auto Rollover or broken/bent steering wheel or trauma mechanism w/ change in LOC
Amputation of one or more digits
10-20% TBSA (2nd or 3rd degree
Provider discretion*

QA Parameters:
BCEMS will review run reports of patients meeting criteria for steps One and Two.

Trauma Triage Flowchart
BLS/ALS Guidelines



Ronald Jackson MD

Assess Mechanism of injury

- Falls
  - Adults >20 feet (one story is equal to 10 feet)
  - Children >10 feet or two or three times the height of the child
- High-risk auto crash
  - Intrusion > 12 inches occupant site, >18 inches any site, including the roof
  - Ejection (partial or complete) from automobile
  - Death in same passenger compartment
  - Vehicle telemetry data consistent with high risk of injury
- Auto vs. pedestrian/bicyclist thrown, run over, or with significant (>20mph)

YES → **Transport to closest most appropriate Hospital which, depending on the trauma system, need not be the highest level trauma center**

NO → **Assess special patient or system considerations**

SPECIAL PATIENT

- Age
  - Older adults Risk of injury/death increases after age 65 years
    Systolic BP < 110 mmHg might represent shock in an older patient
    Low impact mechanism such as a ground level fall may result in severe injury
  - Children: Should be triaged preferentially to pediatric capable trauma centers
- Anticoagulation and bleeding disorders
  Anticoagulated patients with head injury are a high risk for rapid deterioration
- Burns
  - Without other trauma mechanism triage to burn facility
  - With trauma mechanism triage to trauma center

YES → **Contact on-line Medical Control Consider transport to a**

NO → **Transport according to local Hospital**

** Contact on-line medical control if incident is within the core response area or, if destination is BGH.

Ronald Jackson MD

START TRIAGE

SIMPLE TRIAGE AND RAPID TREATMENT POLICY

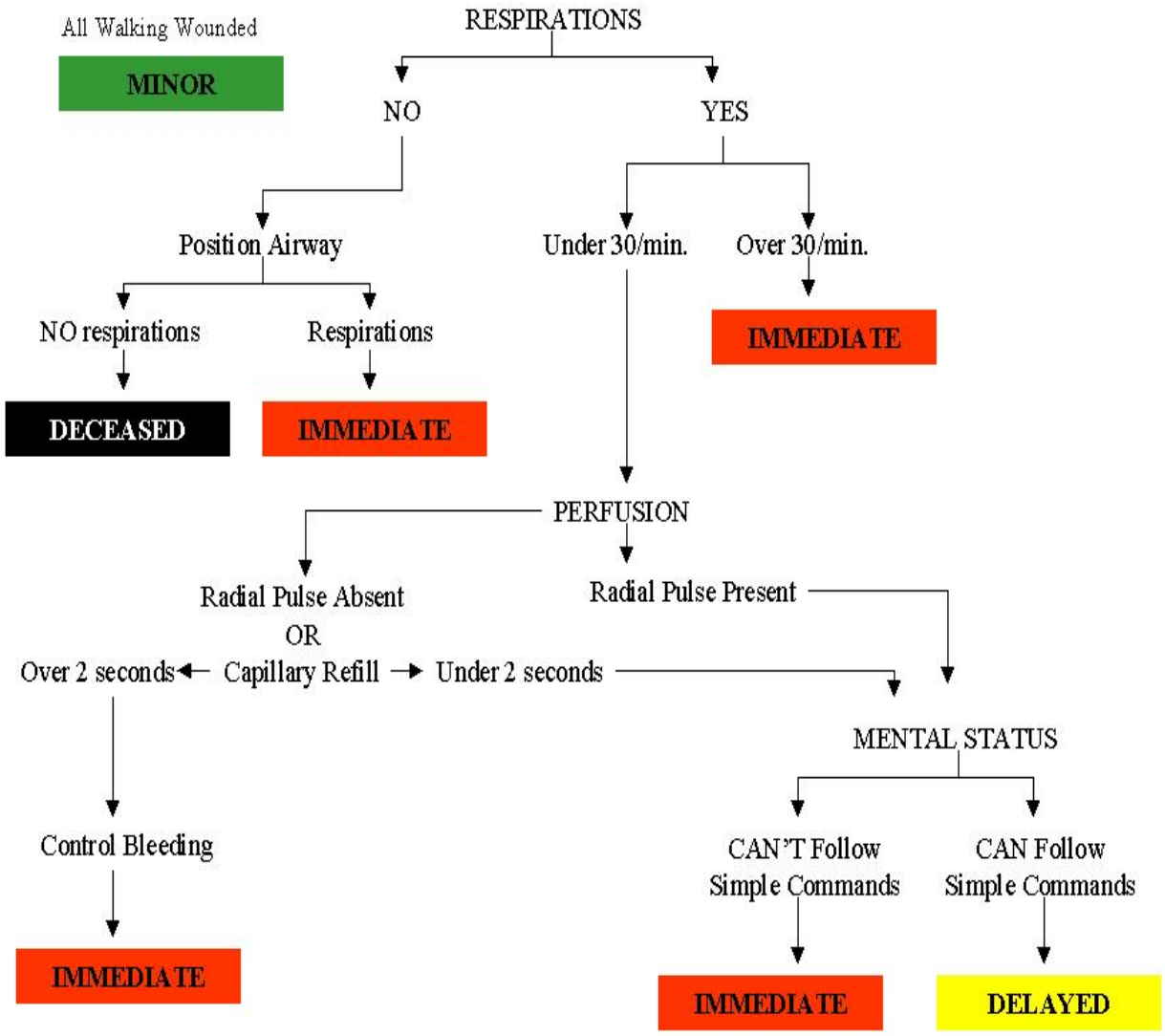
A. Rapid triage criteria when needs exceed available resources in multiple casualty incidents.
   1. Applied to all patients based on physiologic criteria (RPM)
      a. Respiratory rate
      b. Adequacy of perfusion/ Quality of radial pulse
      c. Mental Status/ Ability to follow commands

B. Certain colors assigned to patients correlating with rpm assessment
   1. **Red: Immediate management and transport needed**
      a. Respirations greater than 30 per minute or absent until head repositioned, or
      b. Radial pulse absent or capillary refill greater than 2 seconds, or
      c. Cannot follow simple commands
   2. **Yellow: Delayed management and transport until red patients are treated**
      a. Respirations present and less than 30 per minute, and
      b. Radial pulse present, and
      c. Can follow simple commands.
   3. **Green: Minor injuries that don't appear to require urgent attention**
      a. Anyone that can get up and walk when instructed to do so
   4. **Black: Deceased**
      a. Anyone not breathing after you open the airway.

C. Logistics
   1. Frequently reassess patients and perform a more in-depth triage as more rescuers become available.
   2. Follow management principles of the ICS (Incident Command System).

QA Parameters:
BCEMS will review 100% of run reports when START triage is utilized for multiple casualty incidents.

S.T.A.R.T TRIAGE SYSTEM FLOWCHART



Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

MCI PREPLAN

PURPOSE

A. EMS providers operating in this EMS System District will utilize the National Incident Management System (NIMS), Incident Command System (ICS) principles and shall implement the protocol anytime:
   1. There are five or more patients involved in an EMS call/response.
   2. There are more than three critical patients.
   3. There are more patients than readily available resources.
   4. The potential for multiple patients is likely to exist (e.g. Fire/Rescue scenes, HAZMAT scenes, firefighter rehab operations, high risk law enforcement operations, public events/gatherings and motor vehicle crashes, etc.).

B. Implementation of ICS improves a patient's chance for recovery and survival through the establishment of a well-organized, clearly defined management structure that insures a timely and optimal utilization of emergency resources.
   1. Early, patient-specific clinical notification to hospitals will improve the opportunity to prepare for each inbound patient.
   2. The goal is to minimize out-of-hospital time while optimizing pre-hospital care.

PROCEDURES

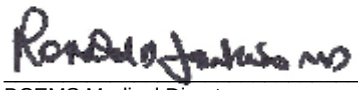
A. **Incident Command:** Once the first EMS unit is on-scene (with capable communication equipment), and it is determined that an MCI exists, the "in-charge" provider will:
   1. Declare MCI and level
   2. Declare tactical channel.
   3. Establish **"Incident Command" (IC)** if it has not already been established by other disciplines (e.g. Fire, Law Enforcement, etc.).
      a. In the event that IC has been established (by other disciplines) and prolonged extrication or delayed response may require extended EMS involvement, a **"Unified Command"** shall be established with Medical Group, Extraction Group and Suppression Group establishment.
      b. Transfer of "Incident Command" can occur whenever a more qualified provider arrives on scene.
      c. Establishment or transfer of command and location of the command post must be broadcast to the Bonner County 911 Dispatch Center.

B. Utilize all available information (e.g. dispatch, law enforcement, bystanders, etc…) to request the response of additional specific emergency resources at the earliest indication of need. (e.g. helicopter stand-by or launch, ALS response, fire/rescue, EMS Coordinator, dive team, law enforcement, etc…)

C. Establish scene safety (reassessment of scene safety should be ongoing).

D. As the first-in-EMS unit arrives, broadcast a "size-up" to include what you can see or what you are told: (e.g. number of vehicles, actual or potential hazards, number of patients and a description of the structure or scene, etc…)

E. Don the medical command vest.



F. Initiate a detailed scene survey and if safe begin Triage operations (e.g. START Triage-1013).
G. Organize Treatment and Transport areas as needed.
   1. Plan to need a minimum of 1 transport per one **RED** patient, two **YELLOW** patients or four **Green** patients.
   2. Additional EMS resources respond code unless otherwise directed, report to staging area and check in with ICS before providing service on-scene.
H. Establish and maintain early contact with hospitals. Develop a specific contact at each hospital (Command Physician or Charge RN) in order to maintain consistency and accuracy of information.
   1. Consider continuous, open-line of communication with hospital.
   2. Provide Hospital Medical Command physician with event details, number of suspected patients, nature of injuries/illness, contamination, special needs, etc.
   3. Ascertain Emergency Department capacity for each hospital.
   4. Provide updates as they become available.
   5. Consider appointment of a dedicated "Hospital Communications" EMS provider to maintain contact with hospitals.
   6. Consider notification of out of area hospitals for larger incidents (Consult with EMS Coordinator Staff).

THREE LEVELS OF MCI

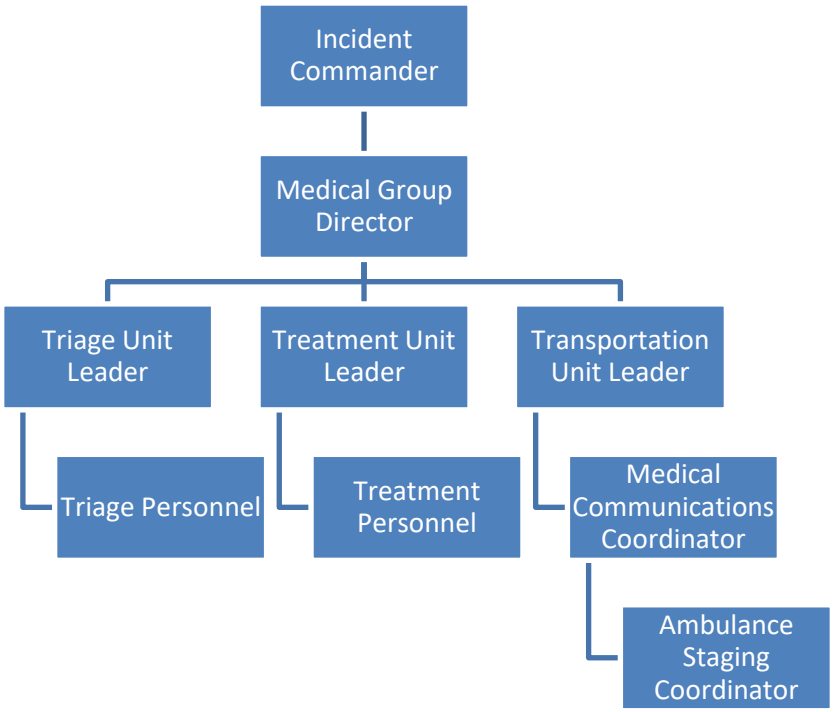
A. Level 3 MCI
   1. Criteria
      a. Incident requires more than initial responding agency
      b. 5 or less patients anticipated on initial triage.
   2. IC/ Medical Group responsibility:
      a. Request additional resources
      b. Notify hospitals of anticipated patients via Medical Control
   3. Bonner County 911 Dispatch responsibility:
      a. Move on-duty resources to cover zones with transport units.
      b. Tone BCEMS senior staff for advisement
B. Level 2 MCI
   1. Criteria
      a. Incident requires more than initial responding agency
      b. 5 to 10 patients anticipated on initial triage.
      c. County wide impact.
   2. IC/ Medical Group responsibility:
      a. Request additional resources- closest available
      b. Notify hospitals of anticipated patients via Medical Control
      c. Establish triage unit
   3. Bonner County 911 Dispatch responsibility:
      a. Move on-duty resources to cover zones with transport units.
      b. Activate inter-county mutual aid as needed to provide coverage.
      b. Tone BCEMS senior staff for advisement.
      c. Dispatch BCEMS officer to BGH to assist.
      d. Dispatch up to 5 transports to scene.

C. Level 1 MCI
   1. Criteria
      a. Incident requires more than initial responding agency
      b. 10 or more patients anticipated on initial triage.
      c. County wide EMS and hospital impact.
      d. May require round-trip transporting.
   2. IC/ Medical Group responsibility:
      a. Request additional resources- closest available.
      b. Notify hospitals of anticipated patients via Medical Control.
      c. Establishes triage unit.
      d. Consider using MCI trailer.
   3. Bonner County 911 Dispatch responsibility:
      a. Move on-duty resources to cover zones with transport units.
      b. Activate inter-county mutual aid as needed to provide coverage.
      c. Tone BCEMS senior staff for advisement.
      d. Dispatch BCEMS or Fire officer to BGH to assist.
      e. Dispatch BCEMS or Fire officer to Bonner Dispatch to assist.
      f. Dispatch 5 or more transports to scene.

EMS ZONE COVERAGE DURING MCI

A. Guidelines
   1. Dispatch uses the closest units available.
   2. Zone 3/5 always retains an on-duty transport unit.
   3. Sagle may respond to an incident in zone 3/5.
   4. Schweitzer EMS may respond one ambulance to an incident county wide, or as on-duty coverage at Schweitzer Conoco.
   5. Priest River may respond both ambulances to an incident county wide.
   6. Newport may cover from Newport/ Oldtown.
      a. Zone 3 unit can cover from MP 19 on HWY 2.
      b. Zone 1 unit can cover from MP 13 on Hwy 57.
   8. Priest Lake may respond one ambulance to an incident county wide and staff second ambulance as on-duty coverage.
   9. Clark Fork may respond one ambulance to an incident county wide and should staff second ambulance as on duty coverage at Trestle Creek.

MEDICAL INCIDENT MANAGEMENT PROTOCOL
MEDICAL GROUP
UNIT STRUCTURE AND LEADERSHIP
(Adapted from NIMS Structure)



Notes:

1. All incidents, regardless of size or complexity, will have an Incident Commander.
2. Responding EMS agencies/department county officials will not cancel nor divert resources while en route to a situation or scene. They may request additional resources to the scene and/or coordinate additional stand-by/back-fill resources, especially if scene providers are over committed. Every effort should be made to notify the on-scene incident commander prior to deployment.

TRANSPORT DESTINATION POLICY

INCLUSIONS AND GUIDELINES

.

A. All Units

1. All patients who are medically unstable, such as with compromised or uncontrolled airways, unstable arrhythmias, imminent delivery of complicated newborns, uncontrolled bleeding, uncontrolled hypotension or dangerous patients, should be taken to the closest receiving facility (generally BGH).
2. Code "Yellow" and "Green" patients will be transported to a facility in the following order of preference:
    a. Patient's physician preference (verify with physician's office)
    b. Patient preference
    c. Caregiver with medical power of attorney request for incompetent patients
    d. Closest Facility
3. For any patient transported to any out-of-county facility, contact the on-duty EMS Operations Supervisor in order to obtain permission to transport to an out-of-system and or an in-system out-of county hospital (i.e KH). The transport decision will be based upon proximity to an in-system hospital (such as KH) and the availability of other BCEMS units to provide coverage in the event permission for out-of-county transport is granted. When it is determined that such requests for transports outside of Bonner County would unreasonably remove the ambulance unit from the primary service area, the patient may be transferred to the closest hospital (such as BGH) capable of treating that patient.
4. In determining the closest appropriate facility, transport personnel should take into consideration traffic obstruction, weather conditions or other factors which might affect transport time.
5. Where question exists concerning the appropriate patient destination, On-Line Medical Control shall be contacted.

B. ALS Field Units

1. Code "Red" or unresuscitated code "Blue" patients should generally go to the closest facility (generally BGH).
2. Code "Red" Trauma, CVA/stroke, therapeutically cooled post arrest and STEMI patients who are not medically unstable (section A.1.) should be transported and managed according to specific BCEMS System Patient Care Treatment Guidelines for such patients. If prolonged field time is anticipated, discuss with Medical Control and consider Air Medical Transport from the BGH helipad, with BGH ED evaluation while awaiting transport, vs. a "hotload" when deemed more appropriate by Medical Control.

C. **BLS and ILS Units**

1. Code "Red" or "Blue" patients should be transported to the closest accredited emergency facility (generally BGH), with ALS intercept/assist when possible as long as field time is not significantly extended.
2. Code "Red" patients will not be transported to out-of-county facilities unless joined (when possible) by a BCEMS Paramedic, Emergency credentialed physician, or CCT trained RN.
3. All code "Red" patients will be discussed with Medical Control.
4. Prearranged non emergent transports (NETS) may be taken out of the county, but must be cleared with the on-duty EMS Operations Supervisor in order to obtain permission to transport to out-of-system and out-of county facilities

D. Exclusions

1. Patients not to be transported by ground ambulance include:
    a. Refusal of Care (see guideline 1050)
    b. Death in the Field/ Cessation of CPR, DOA (1054, 1055).
    c. Patient more appropriately transported by Air Medical Transport (see guideline 1017).

E. Miscellaneous System Issues

1. Hospitals with ER, ICU/CCU, or catheterization lab diversions for whatever reason will occasionally require alterations in transport destination. Contact Medical Control in these situations to arrange the next best destination for the patient.
2. Emergency ambulance transport shall only be provided to acute care facilities accredited by the Joint Commission on Accreditation of Hospitals. In rare instances, transport of a stable, competent patient may be provided to a private physician's office or clinic at the request of a private physician. Contact the on-duty EMS Operations Supervisor ***and*** on-line medical control in order to obtain permission. (This does not include prearranged non-emergency transports (NETS) at the order of a physician).
3. If no patient or physician preference is expressed, and the medical problem is not specifically otherwise covered in these policies, patients shall always be transported to the closest appropriate facility. The Medical Control Physician (MCP) may direct that the patient be transported to a more distant hospital, which in the judgment of the MCP is more appropriate to the medical needs of the patient.
4. Kootenai Health and Newport Community Hospital will be the only in-system and out-of county hospitals authorized for direct patient pre-hospital EMS ground transport, excluding NETS and instances of Notice of Hospital Diversion.

5. Bonner General Hospital Emergency Physicians are contracted to provide on-line Medical Control for BCEMS System and BGH is the only in-system and in-county hospital accredited for acute care.
6. Any Hospital unable to accept patients due to an internal disaster shall be considered “Not prepared to receive emergency cases".
7. In the case of trauma, if transporting via ground ambulance is necessary, the receiving hospital shall be notified as soon as possible in these situations to ensure rapid notification of appropriate resources. Kootenai Health is the designated in-system regional Trauma Facility. Sacred Heart Medical Center via air Medical Transport is the next closest regional Trauma Facility and is the preferred destination for pediatric patients that meet trauma criteria.
8. ST Elevation MI (STEMI): Patients with acute chest discomfort, and a field 12-Lead EKG with at least 2 mm ST elevation in 2 contiguous leads, should be transported and managed according to the BCEMS System STEMI Alert Plan (1018), and STEMI Guidelines (5010), following contact with Medical Control. Kootenai Health is the closest regional hospital with interventional catheterization lab capabilities for acute percutaneous intervention (PCI). Early notification of the receiving hospital (STEMI Alert) is critical to ensure rapid notification of appropriate resources (Interventional Cardiologist and catheterization lab activation).
9. Suspected Cardiac Chest Pain: A patient with chest discomfort relieved by NTG, without other symptoms, and without EKG changes shall follow the standard transport destination protocol.
10. Acute Stroke: Patients with suspected Acute Stroke symptoms (Prehospital Stroke Scale), without hypoglycemia and have a confirmed time of onset of symptoms of 0-3 hours should be transported according to the Bonner County EMS System Suspected Stroke Guidelines (7010) and contact Medical Control. Early notification of the receiving hospital (Code Stroke Alert) is critical to ensure rapid notification of appropriate resources.
11. Inter-facility Transports: Physician ordered inter-facility transport shall be to the hospital directed by the transferring physician. In all cases, to comply with EMTALA/COBRA regulations, the physician or designee must write the order, and the receiving physician must be specifically documented. If during transport the patient deteriorates beyond the provider’s ability to effectively manage, the provider may divert to the closest appropriate hospital.
12. Pregnant Patients: A pregnant woman who has received pre-natal care and has an established physician may be transported to the in-system hospital of choice. Bonner County EMS personnel have the option to transport patients with imminent deliveries to the closest appropriate facility.

13. MCI: In the event of a Mass Casualty Incident (MCI), the medical authority/chain of command, Incident Commander, or his designee shall dictate patient hospital destination. If the patient, or attending physician requests transport to a facility not consistent with the above guidelines, the request will be honored only after informing the patient, responsible person or physician of the unavailability of certain services at that facility, and Medical Control will be notified of this decision. If the patient demonstrates impairment of judgment related to injury, shock, drug effects, or emotional instability, the Paramedic will act in the patient's best interest and transport to the most appropriate facility.

QA Parameters:

A. BCEMS will review the outcome and care of all patients that met field criteria for Trauma, STEMI, or Acute Stroke that were treated and transported.

AIR MEDICAL TRANSPORT

APPROPRIATE UTILIZATION

A. Air Medical Transport may be the preferred mode of primary scene transport for the following logistical factors:

1. Time/distance factors:
    a. Transportation time to anticipated hospital by ground greater than Air Medical response time.
    b. Anticipated patient extrication time greater than 20 minutes.
2. Regional Response factors:
    a. Some patients that may require highly specialized care that may not be available at the nearest facility or within the response range of a rotary wing transport. Examples of such injuries would include patients with major burns requiring stabilizing care and transport to a burn center, unstable pelvic fractures, and amputations of an extremity that may be a candidate for reimplantation. Ground transport to the closest facility such as BGH with stabilizing care followed by air medical transport (such as fixed wing transport) to the most appropriate facility might be considered.
    b. Some patients present with medical conditions which are extremely time sensitive and are managed at regional hospitals identified as Stroke or STEMI centers. Air medical transport is appropriate when time from EMS contact to arrival at the specialty center is significantly shorter than that which might be expected from ground transport.
    c. Utilization of local ground ambulance leaves local community without ground ambulance coverage for an extended period of time.
3. Difficult access situations:
    a. Wilderness rescue of patients in poorly accessible terrain for surface transport.
    b. Ambulance egress or access may be impeded at the scene by road conditions, weather, traffic, or island situations.
4. System considerations:
    a. Disaster and mass casualty incidents offer important opportunities for air medical transport participation.
    b. Utilization of air medical transport should be considered if an area's sole ALS unit might be occupied for an extended "uncovered" period while participating in an extended transport out of the service area.

B. Trauma Guidelines:

1. Primary scene air medical transport may be considered if patients meet Trauma Triage criteria and should be transported and managed according to the System Trauma Triage Plan (1011).
2. Prehospital providers should attempt to identify the most seriously injured patients that should be preferentially transported to the highest level of Trauma Center within the system.
3. Pre-hospital providers should incorporate logistical considerations, clinical judgment, and Medical Control in determining whether primary air transport is appropriate for patients with trauma diagnoses.

C. Medical Guidelines:

1. Primary scene air medical transport may be considered if patients present with clinical conditions requiring time-sensitive treatment, when time to receiving these treatments is significantly reduced by air transport.
2. As additional indications for air medical transport of non-trauma patients are identified, the EMS Medical Director, in mutual agreement with BGH Medical Control, will develop and implement guidelines and training for the care and transport of these patients.
3. Pre-hospital providers should incorporate logistical considerations, clinical judgment, and Medical Control in determining whether primary air transport is appropriate for patients with non-trauma diagnoses.

D. Special considerations and logistics:

1. Patient transportation via ground ambulance should not be unnecessarily delayed in order to wait for air medical transport. If the patient is medically evaluated and ready for transport and the helicopter is not on the ground, or within a reasonable distance (15-20 minutes out) the transportation will be initiated by ground ambulance to the closest appropriate facility. Every effort should be made to avoid unreasonable delays to wait for the helicopter at alternative landing zones.
3. If an EMS provider activate air medical transport, BGH does not have an EMTALA obligation if they are not the recipient hospital unless a request is made by EMS personnel, the individual or a legally responsible person acting on the individual's behalf for the examination or treatment at BGH.
3. When possible, patients at a scene within 20 minutes of BGH by ground transport (including extrication and scene time), should be promptly transferred to BGH where air transport can meet the patient. If, in the opinion of the senior treating provider at the scene that air medical transport will be needed, that request should be discussed in detail with Medical Control at BGH. If all parties are in agreement, the BGH emergency room will initiate air medical transport. Transport may be initiated as a "Hot Load" when deemed necessary by all parties, or otherwise as a facilitated transfer when time permits.
    a. A "Hot Load" would require that the helicopter be on the hospital helipad with rotors turning and the critical care transport team be awaiting the arrival of the patient in the emergency department A "Hot Load" should be requested by EMS field personnel with the appropriate contact of on-line Medical Control. A

pertinent report on the patient's condition and indication for air medical transport to the receiving facility would be expected.

b. A facilitated transfer occurs when patients arrive at the BGH Emergency Department by EMS ground transport prior to the arrival of Air Medical Transport and receive stabilizing care by Emergency Department personnel while waiting for air transport to arrive.

4. EMS providers should contact on line-Medical Control if the patient(s) meets field triage for preferential transport to a Trauma Center, Stroke Center, or STEMI center within the system, and the incident is within the core response area or the anticipated Landing Zone (LZ) will be BGH. A pertinent report on the patient's condition and indication for primary air medical transport to an appropriate receiving hospital would be expected. The Medical Control physician will contact Air Medical Transport and relay pertinent clinical information and coordinate either a scene rendezvous, a facilitated transfer or a "Hot Load" on a case by case basis.

E. Requesting Air Medical Transport:

1. All requests for the use of Air Medical Transport shall be coordinated through 911 dispatch and when indicated on-line Medical Control.
2. The primary Air Medical Transport unit for Bonner County is Life Flight, staged at the Sandpoint airport. Medstar, located in Spokane, Washington, will be the secondary Air Medical Transport facility, and either facility may be used depending on availability.
3. Responders should keep in mind that they may request for a helicopter to be placed on standby (ready to be launched but not en route) if it appears that the helicopter may be needed based on dispatch information.
4. The decision to request a helicopter may be made by the Incident Commander, on-scene paramedic, or in their absence, the senior certified medical provider. While the paramedic is en route, dispatch can be contacted along with on-line medical control concerning the decision to request standby and/or launch of the helicopter. However, as much as possible, the decision should be made by those personnel on-scene that are in the best position to judge the patient's condition as well as the surrounding scene.
5. Once the Air Medical Transport has been placed on standby or launched, any decision to cancel the helicopter will be made by the on-scene paramedic, senior certified medical provider or the Incident Commander.

CRITERIA FOR EXCLUSION OF AIR TRANSPORT

A. Field personnel should refrain from calling for Air Medical Transport when any of the following conditions are met:

1. There are obvious signs of death (decapitation, presence of rigor mortis) or poor outcome predictors such as medical or traumatic cardiac arrest.
2. The patient appears to be clinically stable with minor traumatic injuries.
3. The presence of any circumstance at the scene that unnecessarily jeopardizes the patient, providers or helicopter crew.
6. The patient or a legally responsible person acting on the individual's behalf refuses transportation by the helicopter.
7. Extrication plus transport time to closest appropriate hospital is less than the estimated response time to the scene by the helicopter. Request for the helicopter to be placed on standby may be appropriate. On-line Medical Control should be contacted concerning the decision to request or launch the helicopter when these concerns occur. Alternately, a helicopter may be dispatched to BGH for a "hot load" or facilitated transfer as appropriate.
8. The weather is too poor to fly safely.
9. If no time will be saved by air medical transport, ground transport will be preferred.
10. The receiving facility must be available to accept the patient.
11. Hazardous materials should not be flown if possible.

COMMUNICATIONS

A. Requests for Air Medical Transport

1. All requests for air medical transport should be directed through Bonner County 911 Dispatch.
2. Requests should be based on physiologic findings, not mechanism of injury.

B. Information to be given at time of request for Air Medical Transport:

1. Type of incident.
2. Landing zone location or GPS (Latitude/longitude) coordinates, or both.
3. Scene contact unit, scene landing zone officer or scene incident commander or all of the above.
4. Number of patients if known.
5. Special needs for equipment.
6. Radio frequency for contact.
7. Scene weather conditions/hazards.

C. The following entities are to be notified when requesting Air Medical Transport:

1. Bonner County Dispatch Center
2. State EMS Communications Center (via dispatch)
3. Receiving hospital

Ronald Jackson MD

POTENTIAL LANDING ZONES

A. Core sites
1. Bonner General Helipad is the preferred site for patient who can be transported there within 20 minutes of scene arrival.
2. Sandpoint Airport
3. Sandpoint High School

B. North sites
1. Schweitzer Resort Landing Pad
2. Samuels Conoco
3. Road South of Northside School

C. South sites
1. Sagle Station 1
2. Carreywood clearing off Rt. 95

D. East sites
1. Sam Owen Fire Station
2. Clark Fork High School

E. West sites
1. Westside Fire, Laclede Station
2. Priest River Airport

F. Priest Lake
1. Priest Lake Airport

LANDING ZONE SAFETY

A. Main Landing Zone:

1. When a patient is transported to BGH, with the anticipation of requiring air transport, the main landing zone will be the helipad on top of Bonner General Hospital unless otherwise decided by paramedic, senior certified medical provider or the Incident Commander together with on-line Medical Control.

B. The following will be used when setting up a landing zone:

1. Designate a qualified landing zone officer.
2. Select a safe landing zone area based on the following:
    a. Required size of landing zone (minimum of 100' X 100')
    b. Clear area.
    c. Allowable surface area (smooth and flat).
    d. Absence of hazards and obstructions.
    e. Available marking and lighting of site.
    f. Available communications between ground and air.
    g. Safe available approach and departure path of helicopter.
3. Marking of the Landing Zone
    a. Overhead lights on emergency vehicles
    b. Portable strobes or cones
    c. Turn off all white flashing lights.
    d. Mark overhead hazards (power poles and or lines) with spotlights.

C. Safety Issues

1. Secure all loose clothing or equipment.
2. Protect everyone from the rotor wash.
3. Consider traffic control of vehicles and bystanders around the landing zone.
4. Let the helicopter crew come to the landing zone officer.
5. Keep everything outside the 75' zone area of the helicopter.
6. Maintain a visual contact with the pilot.
7. The pilot has the final say on whether the weather and conditions are safe to fly.

QA All Air Medical Transport patient run reports will be evaluated in the QA process for appropriateness and timeliness of care.

STEMI ALERT PLAN
ACTIVATION PLAN FOR ST ELEVATION MI (STEMI) TRANSPORTS

The following document details the responsibilities of the Health Care Providers (EMS, emergency physicians, cardiologists and support staff) in managing ST Elevation Acute Myocardial Infarction patients presenting in Bonner County, when direct transport to a STEMI facility such as Kootenai Health (KH) is planned for acute coronary intervention.

PARAMEDIC RESPONSIBILITY

C. Establishment of STEMI Diagnosis

1. Clinical presentation
   a. Chest pain characteristics
   f. Associated symptoms (diaphoresis, dyspnea, nausea/vomiting)
   g. Onset of symptoms
   h. Associated arrhythmia
   i. Evidence for hemodynamic compromise (exam and vital signs)
2. EKG findings
   a. ST elevation of at least 2 mm in 2 or more contiguous leads
   b. New left bundle branch block
   c. Presence or absence of paced rhythm
3. Vital signs
   a. Presence of hypotension (BP <100 mmHg), or hypertension (BP >140/90)
   b. Presence of tachycardia (HR>100), or bradycardia (HR<60)
   c. Objective evidence of CHF (pulmonary rales, dyspnea)
   d. Adequacy of ventilation (intubated or not)
      i. Capnography if intubated
      ii. Color, responsiveness, respiratory rate, alertness
   e. Adequacy of oxygenation/ O_2 Saturation
      i. Pulse Oximetry
      ii. Oxygen required to maintain saturation > 90%

D. Notification of Medical Control

1. Transmit 12-lead EKG to Medical Control (text file to ED MD preferred)
2. Paramedic will call Medical Control (265-1029) with STEMI ALERT
   a. Request Medical Control contact KH Patient Transfer Center (800 200-1511) and in turn the on-call cardiologist.
   b. Secure name and phone number of **receiving** cardiologist
   c. Paramedic will determine if direct transport to KH is feasible, and if so notify Bonner County Dispatch of STEMI Alert Activation.
3. When a 12 lead showing possible STEMI is available by an AEMT prior to ALS arrival, EKG transmission is encouraged to initiate the STEMI Alert Plan.

Ronald Jackson MD

BCEMS Medical Director

E. Transport Patient to STEMI Plan Destination Facility

1. Determine if patient meets direct transport criteria, and transport if yes
   a. Hemodynamically reasonably stable (Pulse>50, BP >80)?
   b. Oxygen sat >89% and airway secured?
   c. Perfusing rhythm (sinus, paced or controlled atrial fib)?
2. Discuss with Medical Control appropriateness of ground vs. Air Transport
3. Initiate STEMI Guidelines (5010) and complete STEMI Evaluation Tool (5011) if patient meets direct transport criteria.
4. Contact receiving cardiologist for further orders and provide ETA
5. Prepare patient for catheterization procedure; two IV starts are ideal.
6. Transmit EKG to cath lab control phone by text (208) 929-2136.
7. Call KH cath lab (**208 625-6810**) and give patient report to cath lab RN
8. Deliver patient to STEMI receiving facility (generally KH cath lab)

D. Reasons to Possibly Abort STEMI Alert Plan

1. Patient is unstable and is either in cardiac arrest, or it appears imminent
   a. Pulse is <50 and patient is symptomatic
   b. Blood pressure is below 80 and patient is symptomatic
   c. Airway is not secure and ventilation is inadequate
   d. Rhythm not adequately perfusing:
      i. VT/VF
      ii. High grade AV block
      iii. PEA, asystole, severe bradycardia
2. Call Medical Control and discuss alternatives:
   a. Immediate transfer to nearest facility for stabilization
   b. Address instability and transport directly
   c. Add additional personnel and transport directly

MEDICAL CONTROL RESPONSIBILITY

C. Take STEMI Alert Call from Medic

1. Confirm diagnosis of STEMI from clinical history
2. Receive text of EKG and review
3. Record patient identifying information
4. Discuss appropriateness of ground vs. Air Medical Transport from scene vs. Air Medical Transport intercept at approved landing zone.

D. Contact STEMI Plan Facility (Usually KH)

1. Provide patient data to KH Patient Transfer Center (800) 200-1511
2. Call KH ED (208 625-5707) as alternate if above number not answered
3. Request critical care bed, cath lab activation, ED notification
4. Forward EKG text file to cardiologist and cath Control (208) 929-2136
5. Forward receiving cardiologist's name and number to Paramedic

E. Contact On-call Interventional Cardiologist

1. Patient Transfer Center to patch in the on-call cardiologist
2. Provide initial clinical details and ETA
3. Verify 12-lead EKG received by cardiologist
4. Notify cardiologist to expect a call from Paramedic directly for further clinical orders and management

STEMI FACILITY RESPONSIBILITY

A. Provide Acceptance of STEMI Patient Transfer (Patient Transfer Center)

1. Verify ICU/ CICU bed availability (patient accepted at KH regardless)
2. Provide name/number of receiving cardiologist to Medical Control.
3. Activate catheterization laboratory and provide ETA
4. Request patient registration send face sheets and labels to cath lab
5. Verify that cardiologist has been notified and received EKG and is able to communicate with Paramedic

B. Patient Care and Management Upon EMS Arrival at STEMI facility

1. Patient to be taken directly to catheterization laboratory (via ED entrance)
2. Patient is not to stop in the KH ED unless directed there by cardiologist
3. Cath lab staff to receive EMS STEMI evaluation Tool (5011) worksheet (Paramedic will keep photo-copy for PCR).
4. Cardiologist to meet patient in cath lab while team is setting up
5. Consent for emergency cardiac catheterization given to patient.

C. Post procedure Responsibilities

1. Assist with data collection.
2. Have 12-lead EKG placed in EMR

CARDIOLOGIST RESPONSIBILITY

A. Communication with Medical Control

1. Receive patient clinical details and ETA
2. Receive 12-lead EKG on cell phone and review
3. Agree to accept STEMI patient if clinically appropriate
4. Agree to communicate with EMS Providers and cath lab staff
5. Provide BGH ED and BCEMS with cardiology call schedule (quarterly)

B. **Communication with STEMI Facility**

1. Ascertain that catheterization laboratory has been notified and aware of special circumstances, plans or requirements
2. Communicate with CICU with plan (possible need for balloon pump, cooling catheter, ventilator etc.) as it will impact staffing
3. Verify that ED knows if patient is planned for direct transport to cath lab

C. Communication with EMS

1. EMS Paramedic will call cardiologist directly once en-route and patient evaluated and stabilized for the following:
   a. Discussion of patient presentation and clinical status
   b. Medications administered up to that time
   c. Further orders as indicated (consider giving Brilinta if indicated)

F. Patient Care Responsibility

1. Receive patient in catheterization laboratory
2. Perform rapid history and physical examination
3. Obtain consent for procedures anticipated
4. Complete “short form” admission documentation
5. Dictate H&P while team is preparing patient or following procedures
6. Complete catheterization and percutaneous coronary intervention (PCI)

7. Complete appropriate order sets, reports and documents
8. Communicate with family, referring physician, nursing staff
9. Transfer patient to another facility if appropriate bed is unavailable

DIGITAL COMMUNICATIONS

A. Cell Phone Utilization

1. Smart phones (or equivalent large screen, high definition) cell-phones will be carried by all BCEMS Paramedics, and each of the cardiologists at KH and KH cath lab (control phone).
2. EKGs will be performed by BCEMS Paramedics and photographed with these high-resolution phones. EKGs from BGH ED walk in patients with STEMI will also be photographed and sent. In sectors of our county where 12 lead machines are available, we are encouraging AEMTs to perform the EKG and transmit to Medical Control.
3. EKGs will be sent to the receiving cardiologist as a text file and also forward to the KH cath lab Control phone (208) 929-2136.
4. Cardiologist's cell phone numbers will be updated quarterly and supplied to the BGH ED and to BCEMS to be distributed to the paramedics.
5. Even if a Paramedic is out of cell phone range at the time of acquisition, the EKG can be sent while en route, and rarely simply hand delivered.

B. Digital EKG Transmissions and Printing

1. Sending patient EKGs over encrypted lines from EMS provider to physician, or physician to physician will be HIPPA compliant
2. EKGs will be identified with HIPPA compliant technique and include date, time, age, but not names.
3. The original 12-lead EKG will go into the Paramedic's Patient Care Report (PCR) with an identifying patient sticker.
5. Digital files of EKGs can be deleted on cardiologist phone once reviewed.

STEMI PATIENTS PRESENTING INITIALLY AT BGH

A. **Emergency Room Evaluation**

1. Patients with STEMI frequently arrive by private car to the ED, or have been hospitalized when they develop ST elevation.
2. Call to Bonner County 911 Dispatch to request STEMI transport by EMS or activation of air ambulance
3. Rapid evaluation and initiation of treatment
   a. EKG done and labs sent
   b. ASA 4 tablets of 81 mg each chewable
   c. IV access (2 starts) and IV narcotic pain relief
   d. SL nitroglycerin
   e. IV heparin 50 Units/kg, max dose 5,000 units, if no contraindication.
4. Patient evaluation and treatment target- 15 minutes.
5. EKG sent by text to the receiving cardiologist
6. ED Physician calls STEMI alert to Patient Transfer Center (800) 200-1511
7. Patient loaded into BCEMS transport vs air transport if immediately available. Avoid excesss time spent in the ED before transport.
8. ED Physician calls receiving Cardiologist at KH via Transfer Center
9. Protocols also applies to patients presenting at urgent or immediate care

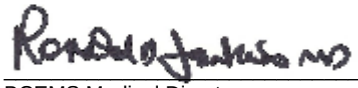
B. EMS Reponse (BCEMS and or Air Ambulance)

1. Response to STEMI alert with primary on duty ALS team
2. Ambulance driver, AEMT and paramedic response to BGH ED
3. Paramedic to photograph EKG and send to receiving cardiologist if not already done.
4. Help to expedite care and load patient ASAP
5. Complete STEMI Evaluation Tool (5011)
6. Contact cardiologist for further orders
7. Repeat EKGs every ten minutes and transmit those with new changes.

C. Receiving STEMI Center Responsibility

1. KH response will be identical whether the patient presents in the field or at an ED, an urgent care or in the hospital as inpatients, as above described.

QA: 100% review of ER or EMS to balloon times >120 minutes
Notes: current lists of call cardiologists cell phone numbers will be provided quarterly to both the BGH ED and Bonner county EMS to facilitate communication with call cardiologists.



USE OF ON-LINE MEDICAL CONTROL

PURPOSE OF ON-LINE MEDICAL CONTROL

A. By the Idaho EMS Act and its regulations, EMS personnel will provide care within their scope of practice and will follow Idaho EMS Commission approved off-line and on-line protocols and On-line Medical Control Orders when delivering EMS Care.

B. On-line Medical Control must order any ALS treatment (medication or procedure) that an EMS practitioner provides when that treatment is not included in or is a deviation from the BCEMS approved off-line ALS Patient Care Treatment Guidelines. All On-line Medical Control orders must be within the Idaho EMS Commission approved scope of practice for the EMS personnel, and the EMS personnel must be BCEMS certified to carry out any order or procedure given by the Medical Control Physician.

C. In certain circumstances, as defined by the BCEMS ALS Patient Care Treatment Guidelines, on-line medical control must be contacted by EMS (BLS or ALS) Personnel.

D. Protocols cannot adequately address every possible patient scenario. The Idaho EMS Act provides a formal on-line Medical Control so that EMS personnel can contact a On-line Medical Control Physician when the personnel are confronted with a situation that is not addressed by the protocols or when the EMS personnel have any doubt about the appropriate care for a patient.

E. The following red-shaded boxes with white asterisks in the protocols indicate that specific contact is required with the On-line Medical Control Physician in order to perform the treatments.

Print in this red section of guidelines requires direct contact with On-Line Medical Control

F. Contact with On-line Medical Control may be particularly helpful in the following situations:

1. Patients who are refusing treatment but meet transport criteria.
2. Patients with time-dependent illnesses or injuries such as acute stroke or acute ST-elevation MI, stroke, or severe trauma.
3. Patients with conditions that have not responded to the usual protocols.
4. Patients with unusual presentations that are not addressed in the protocols.
5. Patients with rare illness or injuries that are not frequently encountered by EMS personnel.
6. Patients who may benefit from uncommon treatments. (E.g. unusual overdoses with specific antidotes).

G. The BCEMS Medical Director may require more frequent contact with On-line Medical Control than required by protocol for ALS personnel who may have restrictions on their credentialing or scope of practice restrictions.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

METHODS FOR CONTACTING MEDICAL CONTROL

A. There are three (3) general methods for contacting On-line Medical Control:

1. UHF or VHF Radio: Direct radio contact with On-line Medical Control may be the preferred method of contact while responding to a call, transporting a patient, or on the scene of an MVC or other non-residential incident. Depending on the area of the state, this can be accomplished by either UHF or VHF frequencies.
2. Telephone (landline): Could be used whenever radio contact fails and the patient's location and condition permit. It offers the best quality communication available and keeps radio frequencies less congested. It also provides a greater amount of security for discussion of sensitive patient information. Providers may use the local phone number of BGH On-line Medical Control (208 265-1029).
3. Cellular Phone: Cell phone is an acceptable method of contact if landline is not available and sensitive information needs to be given, however, when in a mobile unit, it is not a substitute for radio contact if the coverage is available.

B. Inability to contact On-line Medical Control:

1. In some situations and geographic locations, it is not possible for an EMS practitioner to contact an on-line medical control physician. This protocol is applicable to those circumstances in which the pre-hospital care provider is unable to contact a medical command control physician in a timely fashion. If the provider is unable to make contact with On-line Medical Control by any of the above means, properly authorized EMS personnel may continue to follow the appropriate protocol(s) in the best interest of the patient. Procedures or treatments listed in the shaded medical command control box may be considered and performed at the discretion of the ALS practitioner if unable to contact On-line Medical Control if the ALS practitioner believes that these treatments are appropriate and necessary. However, the provider must then:

   a. Carefully document events to include the time of the call, location of the scene, the clinical status of the patient, protocols used and the patient response to treatment. Document this information on the PCR. This information is important for quality improvement reviews.

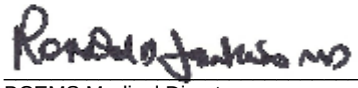
   b. Transport the patient as quickly as possible to the nearest appropriate institution.

   c. If possible, make an additional attempt to contact an on-line medical control facility before proceeding to the shaded boxes.

   d. Provide care within your scope of practice as guided by the prehospital care protocols. NEVER EXCEED YOUR SCOPE OF PRACTICE.

   e. Immediately upon arrival at the receiving facility, contact On-line Medical Control and provide a full patient report to include the protocols used, the patient response to treatment as well as the method, time, and location of the unsuccessful efforts to reach On-line Medical Control.

   f. The provider must submit a report to the BCEMS Medical Director on the appropriate form within 48 hours.



EMS NOTIFICATION

A. If a patient's condition has improved and the patient is stable, provide Emergency Department with "EMS Notification."

B. When On-line Medical Control contact is not required or necessary, the receiving facility should still be notified if the patient is being transported to the Emergency Department. This "EMS Notification" should be provided to the facility by phone or radio, and may be delivered to an appropriated designated individual at the facility.

C. An "EMS Notification" should be a short message that includes the EMS service name or designation, the patient age/gender, the chief complaint or patient problem, vital signs, and treatment administered under appropriate protocols.

D. "EMS Notification" does not have to include a complete patient report when a patient is not being transported to the receiving facilities Emergency Department (e.g. Inter-facility transfer from an acute care hospital to an acute care hospital when the patient is a direct admission to an inpatient floor).

E. Providing "EMS Notification" to the ED may allow a facility to be better prepared for a patient arriving by ambulance and may decrease the amount of time needed to assign an ED bed to an arriving patient.

Policy: See accompanying algorithm.

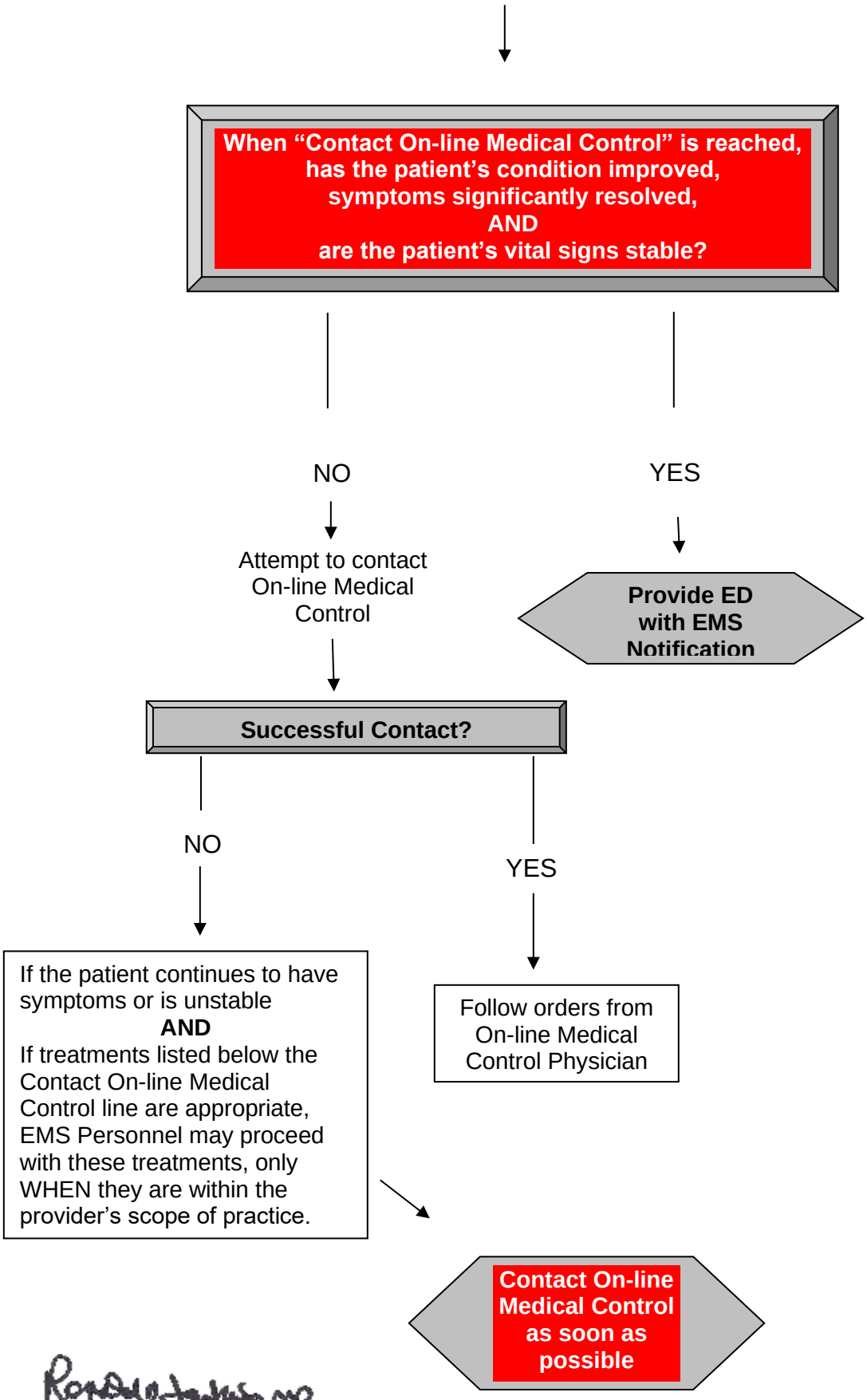
QA Parameters:

A. 100% audit of cases where treatment beyond the "contact on-line medical control" were preformed after unsuccessful contact with on-line medical control.

B. Documentation of medical control facility contacted, on-line medical control physician or designated contact and orders received in every case where medical command control is contacted.

C. Review of cases for appropriate contact with medical control when required by certain protocols when patient's condition does not improve with protocol treatment, and when patients are unstable.

ON-LINE MEDICAL CONTROL ALOGORITHM



Ronald Jackson MD

ON-LINE MEDICAL CONTROL CONTACT

CONTACT CRITERIA

MEDICAL CONTROL IS REQUIRED FOR THE FOLLOWING:

A. Patients with unusual presentations that are not addressed in the patient care treatment guidelines.
B. Patients with conditions that have not responded (no improvement or worsen) to the usual treatment protocols.
C. Prior to treatments or procedures that require Medical Control Physician orders.
D. Patients meeting Trauma Criteria Guidelines. Contact Medical Control at the designated receiving facility.
E. Determination of appropriate utilization of Air Medical Transport in the out-of–hospital setting for non-trauma patients
F. Patients with time sensitive emergencies such as acute ST-elevation MI or acute stroke
G. Suspected ingestion for severe toxic ingestions (EMS may call poison control directly at their discretion)
H. Children under three years of age
I. Childbirth or active labor
J. Termination of pre-hospital resuscitation/CPR (BLS and ALS)
K. Four or more patients requiring transport to designated receiving facility
L. Refusal of transport if meeting criteria for transport

SCENE SAFETY GUIDELINES

PURPOSE

A. This guideline applies to every EMS response, particularly if dispatch information or Initial scene size-up suggests:
   1. Violent patient or bystanders
   2. Weapons involved
   3. Industrial accident or MVA with potential hazardous materials
   4. Patient(s) contaminated with chemicals

B. These guidelines provide general information related to scene safety. These guidelines are not designed to supersede an ambulance service's policy regarding management of personnel safety, but this general information may augment the service's policy.

C. These guidelines do not comprehensively cover all possible situations, and EMS Practitioner judgment should be used when the ambulance service's policy does not provide specific direction.

PROCEDURE

A. If violence or weapons are anticipated:
   1. EMS personnel should wait for law enforcement officers to secure scene before entry.
   2. Avoid entering the scene alone.
   3. If violence is encountered or threatened, retreat to a safe place if possible and await law enforcement.

B. MVAs, Industrial Accidents, Hazardous Materials situations:
   1. General considerations:
      a. Obtain as much information as possible prior to arrival on the scene.
      b. Look for hazardous materials, placards, labels, spills, and/or containers (spilling or leaking). Consider entering scene from uphill/upwind.
      c. Look for downed electrical wires.
      d. Call for assistance, as needed.
   2. Upon approach of scene, look for place to park vehicle:
      a. Upwind and uphill of possible fuel spills and hazardous materials.
      b. Park in a manner that allows for rapid departure.
      c. Allows for access for fire/rescue and other support vehicles.
   3. Safety:
      a. Consider placement of flares/warning devices. [1]
      b. Avoid entering a damaged/disabled vehicle until it is stabilized.
      c. Do not place your EMS vehicle so that its lights blind oncoming traffic.
      d. Use all available lights to light up scene on all sides of your vehicle.
      e. PPE is suggested for all responders entering vehicle or in area immediately around involved vehicle(s).

C. Parked Vehicles (non-crash scenes):

1. Position Ambulance:
   a. Behind vehicle, if possible, in a manner that allows rapid departure and maximum safety of EMS personnel.
   b. Turn headlights on high beam and utilize spotlights aimed at rear view mirror.
   c. Inform the dispatch center, by radio, of the vehicle type, state and number of license plate and number of occupants prior to approaching the suspect vehicle.
2. One person approaches vehicle:
   a. If at night, use a flashlight in the hand that is away from the vehicle and your body.
   b. Proceed slowly toward the driver's seat; keep your body as close as possible to the vehicle (less of a target). Stay behind the "B" post and use it as cover. [2]
   c. Ensure trunk of vehicle is secured; push down on it as you walk by.
   d. Check for potential weapons and persons in back seat. Never stand directly to the side or in front of the persons in the front seat.
   e. Never stand directly in front of a vehicle.
3. Patients:
   a. Attempt to arouse victim by tapping on roof/window.
   b. Identify yourself as an EMS practitioner.
   c. Ask what the problem is.
   d. Don't let patient reach for anything.
   e. Ask occupants to remain in the vehicle until you tell them to get out.

D. Residence scenes with suspected violent individuals:

1. Approach of scene:
   a. Attempt to ascertain, via radio communications, whether authorized personnel have declared the scene under control prior to arrival.
   b. Do not enter environments that have not been determined to be secure or that have been determined unsafe. Consider waiting for police if dispatched for an assault, stabbing, shooting, etc.
   c. Shut down warning lights and sirens one block or more before reaching destination.
   d. Park in a manner that allows rapid departure.
   e. Park 100 feet prior to or past the residence.
2. Arrival on scene:
   a. Approach residence on an angle.
   b. Listen for sounds: screaming, yelling, gun shots.
   c. Glance through window, if available. Avoid standing directly in front of a window or door.
   d. Carry portable radio, but keep volume low. [3]
   e. If you decide to leave, walk backward to vehicle.

3. Position at door:
   a. Stand on the knob side of door; do not stand in front of door.
   b. Knock and announce yourself.
   c. When someone answers door – have him or her lead the way to the patient.
   d. Open door all the way and look through the doorjamb.
4. Entering the residence:
   a. Scan room for potential weapons.
   b. Be wary of kitchens (knives, glass, caustic cleaners, etc.).
   c. Observe for alternative exits.
   d. Do not let anyone get between you and the door, or back you into a corner.
   e. Do not let yourself get locked in.
5. Deteriorating situations:
   a. Leave (with or without patient).
   b. Walk backwards from the scene and do not turn your back.
   c. Meet police at an intersection or nearby landmark, not a residence.
   d. Do not take sides or accuse anyone of anything.

E. Lethal weapons:

1. Secure any weapon that can be used against you or the crew out of the reach of the patient. Weapons should be secured by a law enforcement officer, if present.
   a. Guns should be handed over to a law enforcement officer if possible or placed in a locked space, when available.
   b. Place two fingers on the barrel of the gun and place in a secure area. Do not unload a gun.
   c. Do not move a firearm unless it poses an immediate threat.
   d. Knives should be placed in a locked place, when available.

Notes:

1. Flares should not be used in the vicinity of flammable materials.
2. Avoid side and rear doors when approaching a van. Vans should be approached from the front right corner.
3. Each responder should carry a portable radio, if available.

INFECTION CONTROL

BODY SUBSTANCE ISOLATION GUIDELINES

A. Purpose:

1. These guidelines should be used whenever contact with patient body substances is anticipated and/or when cleaning areas or equipment contaminated with blood or other body fluids.
2. Your patients may have communicable diseases without you knowing it; therefore, these guidelines should be followed for care of all patients.
3. These guidelines provide general information related to body substance isolation and the use of universal precautions. These guidelines are not designed to supercede an ambulance service's infection control policy but this general information may augment the service's policy.
4. These guidelines do not comprehensively cover all possible situations, and EMS practitioner judgment should be used when the ambulance service's infection control policy does not provide specific direction.

B. Procedures:

1. Wear gloves on all calls where contact with blood or body fluid (including wound drainage, urine, vomit, feces, diarrhea, saliva, nasal discharge) is anticipated or when handling items or equipment that may be contaminated with blood or other body fluids.
2. Wash your hands often and after every call. Wash hands even after using gloves:
    a. Use hot water with soap and wash for 15 seconds before rinsing and drying.
    b. If water is not available, use alcohol or a hand-cleaning germicide.
3. Keep all open cuts and abrasions covered with adhesive bandages that repel liquids. (e.g. cover with commercial occlusive dressings or medical gloves)
4. Use goggles or glasses when spraying or splashing of body fluids is possible. (e.g. spitting or arterial bleed). As soon as possible, the EMS practitioner should wash face, neck and any other body surfaces exposed or potentially exposed to splashed body fluids.
5. Use pocket masks with filters/ one-way valves or bag-valve-masks when ventilating a patient.
6. If an EMS practitioner has an exposure to blood or body fluids [1], the practitioner must follow the service's infection control policy and the incident must be immediately reported to the service infection control officer as required. EMS practitioners who have had an exposure should be evaluated as soon as possible, since antiviral prophylactic treatment that decreases the chance of HIV infection must be initiated within hours to be most effective. In most cases, it is best to be evaluated at a medical facility, preferably the facility that treated the patient (donor of the blood or body fluids), as soon as possible after the exposure.

7. Preventing exposure to respiratory diseases:
    a. Respiratory precautions should be used when caring for any patient with a known or suspected infectious disease that is transmitted by respiratory droplets. (e.g. tuberculosis, influenza, or SARS)
    b. HEPA mask (N-95 or better), gowns, goggles and gloves should be worn during patient contact.
    c. A mask should be placed upon the patient if his/her respiratory condition permits.
    d. Notify receiving facility of patient's condition so appropriate isolation room can be prepared.
8. Thoroughly clean and disinfect equipment after each use following service guidelines that are consistent with Center for Disease Control recommendations.
9. Place all disposable equipment and contaminated trash in a clearly marked plastic red Biohazard bag and dispose of appropriately.
    a. Contaminated uniforms and clothing should be removed, placed in an appropriately marked red Biohazard bag and laundered /decontaminated.
    b. All needles and sharps must be disposed of in a sharps receptacle unit and disposed of appropriately.

C. Notes:

1. At-risk exposure is defined as "a percutaneous injury (e.g. needle stick or cut with a sharp object) or contact of mucous membrane or non-intact skin (e.g. exposed skin that is chapped, abraded, or afflicted with dermatitis) with blood, tissue or other body fluids that are potentially infectious."
2. Other "potentially" infectious materials (risk of transmission is unknown) are CSF (cerebral spinal fluid), synovial, pleural, peritoneal, pericardial and amniotic fluid, semen and vaginal secretions.
3. Feces, nasal secretions, saliva, sputum, sweat, tears, urine and vomitus are not considered potentially infectious unless they contain blood.

SIGNIFICANT EXPOSURE

RYAN WHITE
COMPREHENSIVE AIDS RESOURCES EMERGENCY ACT

Guidelines for Reviewing and Responding to Reported Infectious Disease Exposures

1. The emergency response employee (ERE) must send or deliver the "Exposure to Infectious Disease Report" form to the designated officer of the unit.
2. When the form is received by the designated officer, it will be immediately dated (with the time noted), and will be reviewed within 48 hours of receipt to see if a significant risk for disease transmission has occurred to the ERE.
3. The review will be conducted by the designated officer of the EMS unit.
4. The designated officer shall confirm that the individual claiming an exposure was present at an incident which led to the claimed exposure by a review of the emergency vehicle run report(s), hospital emergency room report(s), police unit report(s), or other reports which are accessible, either by telephone or in person.
5. The designated officer may contact the claimant for more information on the incident, if additional information appears to be needed to evaluate the significance of the exposure.
6. The designated officer will make a decision based on the composite information available, that an incident did occur, the petitioner was present, and a potential exposure did occur.
   a. The designated officer will use the guidelines for determining exposure outlined in the Federal Register 59 FR 13418 3/21/94.
   b. If it is determined that no exposure occurred or if unable to verify the petitioner was present, the designated officer will notify the ERE of the decision and no further action will be taken.
7. If evidence indicates a potential exposure has occurred, the designated officer will send, within 48 hours, to the medical facility to which the patient was transported, or the facility ascertaining the cause of death if different (coroner case), a signed written request, along with the facts collected, for a determination of whether the ERE was exposed to a listed disease.
   a. If the medical facility requests additional information, the designated officer may request the District Health Department Epidemiologist evaluate the request and the medical facility's response.
   b. If additional information is needed, it will be collected by the designated officer, and the District Health Department Epidemiologist will resubmit the request to the medical facility.
8. The determination by the medical facility of the ERE's exposure to an infectious disease will be made in writing to the designated officer within 48 hours after receiving the request.
9. After receiving the notification, the designated officer shall, to the extent possible, immediately notify each ERE who responded to the emergency involved, and as indicated by the guidelines, may have been exposed.

Ronald Jackson MD

BCEMS Medical Director

a. This notification shall inform the ERE(s) they may have been exposed to an infectious disease, the name of that disease, and medically appropriate action, or
b. The designated officer shall, to the extent possible, immediately notify the ERE(s) of when there is no finding of exposure if there is insufficient information to make a determination.

10. If a victim of an emergency dies at or before reaching the medical facility, and the medical facility receives a request (described above), the medical facility shall provide a copy of the request to the facility ascertaining the cause of death, if different. Upon receiving a notification of an infectious disease exposure from the facility ascertaining death, the designated officer shall follow the same procedure as outlined in #9 above.

NOTE: Sec. 300ff-88. Rules of Construction.

(a) LIABILITY OF MEDICAL FACILITIES AND DESIGNATED OFFICERS. – This subpart may not be construed to authorize any cause of action for damages or any civil penalty against any medical facility, or any designated officer, for failure to comply with the duties established in this subpart.
(b) TESTING – This subpart may not, with respect to the victims of emergencies, be construed to authorize or require any medical facility, any designated officer or emergency response employees, or any such employee, to disclose identifying information with respect to a victim of an emergency or with respect to an emergency response employee.
(c) CONFIDENTIALITY – This subpart may not be construed to authorize or require any medical facility, any designated officer or emergency response employees, or any such employee, to disclose identifying information with respect to a victim of an emergency or with respect to an emergency response employee.

RYAN WHITE
COMPREHENSIVE AIDS RESOURCES EMERGENCY ACT

The Federal legislative mandate of these guidelines is to develop a procedure for notifying Emergency Response Employees (ERE) whether they have been exposed to an infectious disease, including HIV. The guidelines list the following infectious diseases, which include airborne, bloodborne, and uncommon or rare diseases:

- Infectious pulmonary tuberculosis;
- Hepatitis B;
- HIV, including AIDS;
- Diphtheria;
- Meningococcal disease;
- Plague;
- Hemorrhagic fevers;
- Rabies.

The source of information for such determinations is based upon data collected by the medical facility during treatment, of facility ascertaining cause of death, if different, of patients who have

been treated and or transported by EREs. However, it does not authorize or require the medical facility to test a victim for any infectious disease.
In practice, if an ERE has been exposed to an airborne disease, such as tuberculosis, the medical facility to which the infected patient was brought must notify the ERE's designated officer (appointed by the State Health Officer) of a potential exposure.

On the other hand, if the ERE has been exposed to blood, he or she can report to the designated officer charged with asking the hospital where the patient was transported, if the patient has any of the diseases on the list. If so, the designated officer informs the ERE whether he or she has been exposed.

The national guidelines were developed because as many as one out of fifteen EREs is exposed to communicable diseases annually. In cases where EREs have been exposed to blood, they often have had difficulty in finding out whether they were exposed to blood borne pathogens.

IDAHO SIGNIFICANT EXPOSURE LAW

This law, passed by the Idaho Legislature in 1990, applies only to HIV and hepatitis B exposures. It provides for the Department of Health and Welfare to accept and assess reports of "significant exposures" to patient's blood or body fluids by persons involved in providing emergency or medical services. Upon receipt of the report, the Bureau of Communicable Disease Prevention determines whether the exposure to blood or body fluids is "significant."

The Idaho Reportable Disease Regulations, Title 2, Chapter 10, section 02.10003,31, define significant exposure as follows:

> Significant exposure occurs when a person is exposed to blood or any blood contaminated body fluid, semen, vaginal secretions, cerebrospinal fluid, or other fluids requiring universal precautions from an individual through needle puncture wound, scalpel cut, or skin perforation; through any mucous membrane surface such as the eye, nose, or mouth; or through an existing open cut, scratch, hangnail, or other broken skin barrier.

If, in the Department's judgment, a "significant" exposure has occurred, the Department notifies the local health department within which the ERE resides/works, that the ERE may have been exposed to HIV or hepatitis B virus, or not as the case may be, based on the cases reported to the Department's current HIV or hepatitis B registry. Designated staff of the district health department contacts the ERE and informs them whether they have had an exposure or whether no information is available, and counsel them appropriately.

Under this law, the ERE must send or deliver the report from ("Significant Exposure Information Request") to the Bureau of Communicable Disease Prevention, within 14 days of the incident. Reports received after this time limit are disapproved.

SUMMARY

The review procedures for these two laws function independently of one another. Therefore, if the maximum information available is to be obtained, it will be necessary for EREs to access both processes. Note: All requests for access to data in response to the Idaho Significant Exposure Law must be accompanied by forms signed by the ERE involved. Information related to the HIV/HBV registries would not be given to the designated officer, but will be released to the ERE petitioner only!

EBOLA VIRUS DISEASE (EVD)

OPERATIONAL GUIDELINES FOR KNOWN OR SUSPECTED CASES OF EVD

PROVIDER SAFETY

A. Prior to Arrival

1. **Bonner Dispatch will screen callers for the following information:**
   a. **Travel to a country with an outbreak of Ebola within the last 21 days**
   b. **Contact with someone who has the Ebola virus within the last 21 days**
   c. **Fever of 100.4 f or greater, vomiting, diarrhea, sore throat, severe headache, muscle pain, abdominal pain, unexplained bleeding.**
2. **Providers should stage and not enter the scene when a patient has met the criteria in A1a or A1b, and has any of the symptoms listed in A1c. Additionally, providers may opt to stage based on their individual judgment.**
3. **Notify the following individuals and agencies:**
   a. **Direct supervisor**
   b. **On-duty BCEMS captain**
   c. **BCEMS Operations Chief**
   d. **Bonner County Emergency Management**
   e. **Bonner County Sheriff's Office**
   f. **Panhandle Health and the CDC will be secondarily notified by Bonner County Emergency Management.**

B. PPE

1. **A high level of personal protective equipment (PPE) will be worn at all times while in infectious or potentially infectious environments where EVD is a concern. All body fluids will be considered infectious. PPE will cover the entire body, and no skin will be exposed. PPE will include:**
   a. **A Tyvek or similarly impermeable full body suit**
   b. **A respirator mask which covers the entire face**
   c. **A double layering of gloves**
   d. **Duct tape, or similar heavy duty tape, on all zippers, cuffs, and the seal between respirator mask and suit. Sleeves are preferable to duct tape for the sealing of cuffs when available. Aprons and overboots should be worn when available.**
2. **PPE will be checked for defects, damage, or areas of vulnerability by a partner prior to entering a hazardous area. Partners should frequently check each other's PPE while inside the hazardous area. The PPE should again be checked prior to doffing.**
3. **Surgical masks should be placed on infected and potentially infected patients to prevent virus transmission through the coughing or spitting of body fluids.**
4. **Prior to doffing, the provider's PPE will be scrubbed with a hospital-grade**

disinfectant by another provider wearing full PPE.

5. **PPE should be carefully removed without contaminating one's eyes, mucous membranes, or clothing with potentially infectious materials.**
6. **If providers on a routine call for service suddenly find that their patient fits the criteria in section A1 of this document, the providers should immediately leave the hot zone, decontaminate themselves, and notify the appropriate individuals and agencies.**
7. **If any body fluids or substances from a patient with suspected EVD come into direct contact with the EMS provider's skin or mucous membranes, then the EMS provider should immediately stop working. They should wash the affected skin surfaces with soap and water, and report exposure to their supervisor.**

C. On Scene

1. A safety officer shall be appointed first thing following the formation of an incident command.
2. The hot zone, warm zone, and cold zone shall be established and communicated to responders.
3. An accountability system will be in place prior to entry into any warm or hot zone areas.
4. Incident commanders shall maintain a log of all persons in contact with patients confirmed or suspected of having EVD, and make it available to the CDC should further quarantine of responders be needed. Log should be kept for 60 days following the incident.
5. The Bonner County Sheriff's office may exercise all powers delineated to the Sheriff via Idaho code and constitution in securing the scene, evacuating hazardous areas, or enacting a quarantine.

D. Patient Care

1. Use caution when approaching a patient with Ebola. Illness can cause delirium, with erratic behavior that can place EMS personnel at risk for infection, e.g., flailing or staggering.
2. Isolate the patient away from others.
3. Use dedicated, disposable medical equipment when possible. Protect equipment that would be difficult to decontaminate (e.g., place radios into plastic bags).
4. Limit activities which can increase the risk of exposure to infectious material (e.g., airway management, cardiopulmonary resuscitation, use of needles).
5. Limit the use of needles and other sharps as much as possible. All needles and sharps should be handled with extreme care, and disposed of in puncture-proof, sealed containers.
6. Phlebotomy, procedures, and laboratory testing should be limited to the minimum necessary for essential diagnostic evaluation and medical care.
7. Pre-hospital resuscitation procedures such as endotracheal intubation, open suctioning of airways, and cardiopulmonary resuscitation frequently result in a large amount of body fluids, such as saliva and vomit. Performing these procedures in a less controlled environment (e.g., moving vehicle) increases risk of exposure for EMS personnel. If conducted, perform these procedures under safer circumstances (e.g., stopped vehicle).

8. Incident commanders shall maintain a log of all persons in contact with patients confirmed or suspected of having EVD.

E. Transportation

1. The patient should remain isolated in place until proper arrangements have been made with a receiving facility capable of handling patients with EVD. The patient is ideally isolated in a private room with a private bathroom.
2. Decision to transport, mode of transport, and to which destination, should be made with OLMC consult and direct contact with the receiving facility. In some minor cases it may be preferable for the patient to maintain isolation and drive themselves to the facility with EMS vehicle escort.
3. If ambulance transport becomes necessary, the ambulance should be outfitted in the following manner:
   a. Necessary supplies should be pre-removed from cabinets and stored in an area which is accessible to providers, but which does not require the provider to dig through bags or cabinets. This includes bio-bags and some decon supplies.
   b. All unnecessary supplies and portable equipment must be removed from the ambulance to prevent accidental contamination.
   c. All surfaces of the patient compartment, including the gurney mattress, must be covered with plastic sheeting to limit contamination. The patient compartment must be isolated from the cab of the ambulance to protect the driver. Vents and fans should remain uncovered and running throughout the transport. Because door handles will be covered with plastic sheeting, it will be necessary to open doors of the patient compartment from the outside.
   d. Signs must be conspicuously placed on the outside of the doors to the patient compartment warning of the biohazard.

F. Decontamination

1. Thorough decontamination of affected equipment and vehicles shall be performed following care and/or transport of infectious or possibly infectious patients.
2. EMS personnel performing cleaning and disinfection of should wear the recommended PPE described above.
3. The Ebola virus is a Category A infectious substance regulated by the U.S. Department of Transportation's (DOT) Hazardous Materials Regulations (HMR, 49 C.F.R., Parts 171-180). The HMR apply to any material the DOT determines to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce. Any item transported for disposal that is contaminated or suspected of being contaminated with a Category A infectious substance must be packaged and transported in accordance with the HMR. This includes medical equipment, sharps, linens, plastic sheeting, and used health care products (such as soiled absorbent pads or dressings, emesis containers, portable toilets, used disposable PPE, or byproducts of cleaning) contaminated or suspected of being contaminated with a Category A infectious substance.

4. An EPA-registered hospital-grade disinfectant with label claims for viruses that share some technical similarities to Ebola (such as norovirus, rotavirus, adenovirus, and poliovirus) should be used. Manufacturer's instructions for cleaning and
decontaminating surfaces, or objects soiled with blood or body fluid, should be followed.
5. All body fluids and substances will be considered infections in the case of known or suspected EVD. A spill of any body fluid or substance should be managed through removal of bulk spill matter, cleaning the site, and then disinfecting the site. For large spills, a chemical disinfectant with sufficient potency is needed to overcome the tendency of proteins in blood and other body substances to neutralize the disinfectant's active ingredient.
6. Vigorously clean all surfaces and equipment with hospital-grade disinfectant.
7. In accordance with paragraph F3 of this guideline, remove and dispose of all plastic sheeting, linens, non-fluid impermeable pillows and mattresses as appropriate, and all refuse and cleaning supplies, as Category A infectious substances. Be mindful of cross contamination risks.
8. Providers shall vigorously wash their hands with soap and water following any activities which bring them close to infectious or potentially infectious people or materials regardless of PPE used. If water and soap are not available, alcohol-based hand sanitizer should be used.
9. Personnel uniforms are not considered bio-hazardous if the provider was wearing full PPE. As an added layer of precaution, providers should not bring their uniform home or into station living areas until it is washed in an industrial grade washing machine with detergent on a sanitary cycle, and dried in a clothes dryer on high heat. The washing machine should then be cleaned by running an empty load with a hospital-grade disinfectant.

QA 100% review of all usages of these guidelines in whole or part.

TRANSPORTING CHILDREN IN AMBULANCES
IDAHO GUIDELINES

There are certain practices that can significantly decrease the likelihood of a crash, and in the event of a crash or near collision, can significantly decrease the potential for injury. The following guidelines for good practice should be observed when transporting children in EMS vehicles:

Do's	**Don'ts**
✓ DO drive cautiously at safe speeds observing traffic laws.	✗ DO NOT drive at unsafe high speeds with rapid acceleration, decelerations, and turns.
✓ DO tightly secure all monitoring devices and other equipment.	✗ DO NOT leave monitoring devices and other equipment unsecured in moving EMS vehicles.
✓ DO ensure available restraint systems are used by EMS providers and other occupants, including the patient..	✗ DO NOT allow parents, caregivers, EMS providers or other passengers to be unrestrained during transport.
✓ **DO transport children who are not patients, properly restrained, in an alternate passenger vehicle, whenever possible.**	✗ DO NOT have the child/infant held in the arms or lap of parent, caregiver, or EMS providers during transport.
✓ DO encourage utilization of the DOT NHTSA Emergency Vehicle Operating Course (EVOC), National Standard Curriculum.	✗ DO NOT allow emergency vehicles to be operated by persons who have not completed the DOT EVOC or equivalent.

This guideline is based on a joint research project done by the Indiana University School of Medicine and the University of Michigan Medical School and Transportation Research Institute.

CRASH PROTECTION FOR CHILDREN IN AMBULANCES

Recommendations and Procedures*
Marilyn J. Bull, M.D., Kathleen Weber, Judith Talty, Miriam Manary
* The complete research paper is published in Association for the Advancement of Automotive Medicine,
45th Annual Proceedings, pp. 353-367. Barrington, IL, AAAM, 2001.
The following limitations apply to the child restraint recommendations in this guideline:

1. They are for field use only.
2. They are not specifically endorsed by any child restraint manufacturers.
3. They may not be consistent with the official instructions for use of a child restraint in a passenger vehicle.
4. They assume that the ambulance is equipped with a cot and fastener system that has been successfully tested under vehicle crash conditions.
5. They recognize that the very nature of emergency circumstances may require some compromises of best practice. (If a child is found in a convertible child restraint that is still visually intact, however, it may be better to move the child in that restraint to the ambulance for transport than to transfer the child to a different restraint.)

CONVERTIBLE CHILD RESTRAINT SYSTEMS

For restraining children up to about 18 kg who can fit into a convertible child restraint and can tolerate a semi-upright seated position (Figure 4):

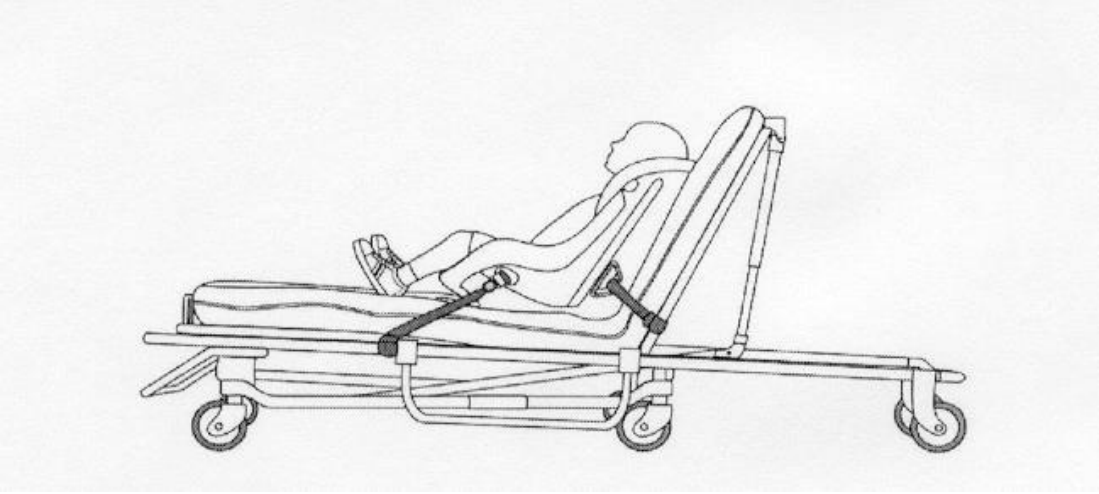
- Use only a convertible child restraint, which can be secured with belts against both rearward and forward motion, and select one that has a 5-point harness for routine use. Infant restraints, which have only a single belt path, cannot be installed using this method.

- Position the convertible child restraint on the cot facing the foot-end with the backrest fully elevated. Adjust the restraint recline mechanism so that the back surface fits snugly against the backrest of the cot. The resulting angle should be comfortable for the child but not more than 45° from vertical.

- Anchor the convertible child restraint to the cot using two pairs of belts. One should be attached to the cot backrest in a location that will not slide up or down and routed through the restraint belt path designated for “forward-facing” installation. The other should be attached rearward of the farthest side rail anchor and routed through the restraint belt path designated for “rear-facing” installation.

- Fasten the 5-point harness and snugly adjust it on the child. Ideally, the shoulder straps should be through slots at or just below the child's shoulders, since the convertible child restraint will be oriented rear-facing.

- For small infants, place rolled towels or blankets on either side of the child to maintain a centered position in the restraint.



CAR BED SYSTEMS

For restraining infants who cannot tolerate a semi-upright seated position or who, for other reasons, must lie flat (Figure 5):

- Use only a car bed that can be secured with belts against both rearward and forward motion. Car beds with a single belt installation cannot be installed using this method.
- Position the car bed across the cot, so that the child lies perpendicular to it, and fully raise the backrest.
- Anchor the car bed to the cot with two pairs of belts attached to the cot as described above.
- Fasten the harness or other internal restraint and snugly adjust it on the infant.

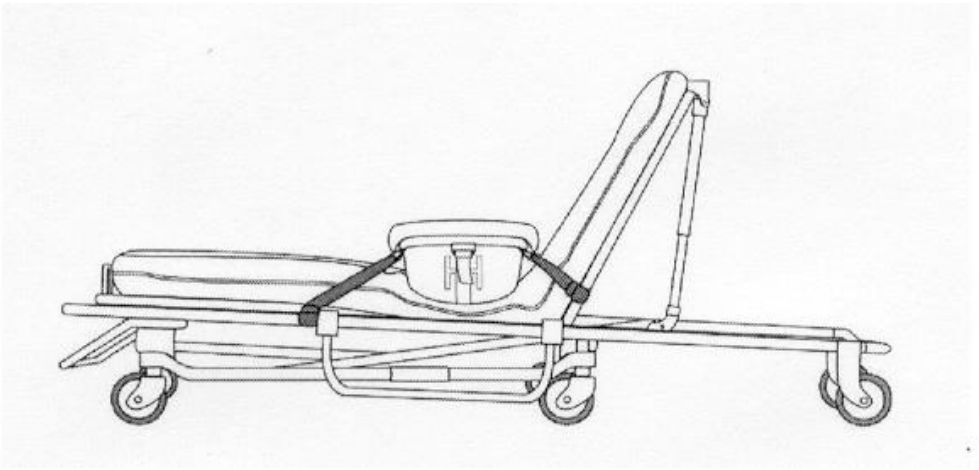


Figure 5. Recommended method for restraining infants who cannot tolerate a semi-upright seated position, showing belt attachment to the cot and routing through the car bed loops.

HARNESS SYSTEMS

A recommendation cannot be made at this time for restraint of a child who cannot be accommodated in a convertible child restraint or car bed, either due to size or medical condition. Instead, recommendations are made for the design of an effective harness system for use on an ambulance cot. Harness features needed are:

1. Fixed shoulder belt attachments or slots at or just below the child's shoulders to limit ramping;

2. A belt anchored to the lower side rails of the cot that is restricted from sliding and is routed over the thighs, not around the waist;

3. A belt running parallel to the cot that connects the lap belt to a non-sliding cot member or perpendicular belt in the leg area to keep the lap belt in place and restrict ramping;

4. A soft, sliding, or breakaway connector holding the shoulder straps together on the chest; and

5. Lightweight one-handed strap adjusters.

At present the usual alternative for these children is the standard belt system provided on the cot. It is hoped, however, that these recommendations will hasten the development of new harness products.

TRANSPORTING ANIMALS IN AMBULANCES

A. Animals will not be allowed to be transported in ambulances with few exceptions.

1. Service animals to a disabled patient that is being transported. Examples are:
   a. Seeing-eye dogs for the legally blind/ visually impaired
   b. Service dog for seizure patient
   c. Service animals that pull or guide wheelchairs
2. Service animals must be docile, non-threatening to EMS workers, and willing to be positioned in an ambulance so as to not interfere with patient care.
3. Service animals must be documented with vests and/or collars identifying them as service animals.
4. Transportation of service animals may be appropriate for non emergent transport (NET), but are inappropriate to be in the ambulance when the patient is critically ill, requires ongoing intervention, or critical care transport (CCT).

B. Animals that are inappropriate for ambulance transportation include:

1. Pets of any species.
2. Pets that patients claim are companion animals, therapeutic animals and or service animals without documentation, vests or identifying collars.
3. Animals that are threatening or in the way of efficient emergency care.

C. Service animals that need transport, but are inappropriate for the ambulance due to patient severity, sterility concerns, animal behavior or any other valid reason should be referred to the appropriate law enforcement officer for disposition.

1. Bonner County Animal Control may be of assistance to house the animal temporarily while the patient is getting treatment, or to transport the animal to the patient's destination, if the animal will be needed right away for further service, but cannot be accommodated in the ambulance for any reason.

PATIENT RESTRAINT

A. Procedures:

1. Medical personnel are responsible for the assessment, treatment, transport and safety of restrained patients, however, law enforcement assistance may be requested. Discontinue restraint activities when increased agitation or resistance poses a safety risk to patient and/or EMS providers.
2. For interfacility transport, a physician order must be obtained for physical restraint.
3. Optimally, 5 people should be available to control a truly combative person. One person for each limb and one to direct the process and initiate application of restraints.
4. The following types of patients may require some form of restraint:
   a. Unconscious
   b. Confused
   c. Intoxicated and showing signs of illness/injury
   d. Pediatric patient and showing signs of illness/injury
   e. Developmentally or psychologically disabled and showing signs of illness/injury
   f. Verbally or physically hostile and/or threatening others and/or showing signs of illness/injury
   g. Suicidal
5. Only reasonable force may be used. Reasonable force is equal to or minimally greater than the amount of force being exerted by the resisting patient. Reasonable must also be safe force.

B. Contraindications to specific restraint:

1. **Use of prone restraint is contraindicated.**
   a. It prohibits complete assessment.
   b. Emergency care cannot be efficiently rendered.
   c. It makes spinal immobilization impossible and contributes to death from Restraint-Related Positional Asphyxia.

C. Types of Restraint:

1. Physical or manual restraint is achieved by hands-on contact and /or body contact without the use of devices
2. Mechanical restraint is achieved by using approved medical restraints. Use approved devices according to manufacturer recommendation and medical director approved training.
3. Chemical or pharmacologic restraint may be achieved with appropriate and careful sedation.

D. Documentation Guidelines:

1. Type of emergency and that the need for treatment was explained to the patient
2. Patient refusal of care or patient was unable to consent to treatment.
3. Evidence of the patient's incompetence or inability to refuse treatment, including behavior and/or mental status of patient before restraint.
4. Least restrictive methods of restraint were attempted.
5. If applicable, assistance of law enforcement was requested, including Officer names.
6. Orders from medical control to restrain.

Ronald Jackson MD

7. The treatment and restraint were for the patient's benefit and safety.
8. The reasons for the restraint were explained to the patient
9. The type of restraint used (Manual, gauze, spider strap, gurney straps, etc)
10. The limbs restrained (Right wrist, bilateral wrists, four points, etc.)
11. Any injuries that occurred during or after restraint
12. Circulation checks every 5 minutes
13. Behavior and/or mental status of patient after restraint

CORONAVIRUS DISEASE (COVID-19)

Interim Guidance for Emergency Medical Services (EMS) Systems for Coronavirus Disease 2019 (COVID-19) in the USA

A. Background

1. Emergency medical services (EMS) play a vital role in responding to requests for assistance, triaging patients, and providing emergency medical treatment and transport for ill persons. However, unlike patient care in the controlled environment of a healthcare facility, care and transports by EMS present unique challenges because of the nature of the setting, enclosed space during transport, frequent need for rapid medical decision-making, interventions with limited information, and a varying range of patient acuity and jurisdictional healthcare resources.
2. Updated information about COVID-19: may be accessed at https://www.cdc.gov/coronavirus/2019-ncov/index.html. Infection prevention and control recommendations can be found at https://www.cdc.gov/coronavirus/2019-nCoV/hcp/infection-control.html. Additional information for healthcare personnel can be found at https://www.cdc.gov/coronavirus/2019-nCoV/guidance-hcp.html.

B. Case Definition for COVID-19

1. CDC's most current case definition for a person under investigation (PUI) for COVID-19 may be accessed at https://www.cdc.gov/coronavirus/2019-nCoV/clinical-criteria.html.
2. Contact your local or state health department. Healthcare providers should immediately notify their health department in the event of a PUI for COVID-19.
3. Criteria to Guide Evaluation of PUI for COVID-19
    a. The CDC clinical criteria for COVID-19 PUIs have been developed based on available information about this novel virus, as well as, what is known about Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS). These criteria are subject to change as additional information becomes available.

Clinical Features and Epidemiologic Risk

Clinical Features	&	Epidemiologic Risk
Fever[1] **or** signs/symptoms of lower respiratory illness (e.g. cough or shortness of breath)	**AND**	Any person, including healthcare workers[2], who has had close contact[3] with a laboratory-confirmed[4] COVID-19 patient within 14 days of symptom onset
Fever[1] **and** signs/symptoms of a lower respiratory illness (e.g., cough or shortness of breath) requiring hospitalization	**AND**	A history of travel from affected geographic areas[5](see below) within 14 days of symptom onset
Fever[1] with severe acute lower respiratory illness (e.g., pneumonia, ARDS) requiring hospitalization and without alternative explanatory diagnosis (e.g., influenza)[6]	**AND**	No source of exposure has been identified

b. Information on a possible PUI should be communicated immediately to EMS clinicians before arrival on scene in order to allow use of appropriate personal protective equipment (PPE). 911 dispatch operators should utilize medical dispatch procedures that may be modified by their EMS medical director and in coordination with the local or state public health department as further information is available.

C. Patient Assessment

1. If 911 dispatch call takers advise that the patient is suspected of having COVID-19, EMS providers should put on appropriate PPE before entering the scene. EMS providers should consider the signs, symptoms, and risk factors of COVID-19 (https://www.cdc.gov/coronavirus/2019-nCoV/clinical-criteria.html).
2. If information about potential for COVID-19 has not been provided by dispatch, EMS providers should exercise appropriate precautions when responding to any patient with signs or symptoms of a respiratory infection. Initial assessment should begin from a distance of at least 6 feet from the patient, if possible. Patient contact should be minimized to the extent possible until a facemask is on the patient. If COVID-19 is suspected, all PPE as described below should be used. If COVID-19 is not suspected, EMS providers should follow standard procedures and use appropriate PPE for evaluating a patient with a potential respiratory infection.
    a. A facemask should be worn by the patient for source control. If a nasal cannula is in place, a facemask should be worn over the nasal cannula. Alternatively, an oxygen mask can be used if clinically indicated. If the patient requires intubation, see below for additional precautions for aerosol-generating procedures.
    b. During transport, limit the number of providers in the patient compartment to essential personnel to minimize possible exposures.

D. Recommended Personal Protective Equipment (PPE)

1. EMS providers who will directly care for a patient with possible COVID-19 infection or who will be in the compartment with the patient should follow Standard, Contact, and Airborne Precautions, including the use of eye protection. Recommended PPE includes:
    a. A single pair of disposable patient examination gloves. Change gloves if they become torn or heavily contaminated,
    b. Disposable isolation gown,
    c. Respiratory protection (i.e., N-95 or higher-level respirator), and
    d. Eye protection (i.e., goggles or disposable face shield that fully covers the front and sides of the face).
2. Drivers, if they provide direct patient care (e.g., moving patients onto stretchers), should wear all recommended PPE. After completing patient care and before entering an isolated driver's compartment, the driver should remove and dispose of PPE and perform hand hygiene to avoid soiling the compartment.
    a. If the transport vehicle does **not** have an isolated driver's compartment, the driver should remove the face shield or goggles, gown, and gloves and perform hand hygiene. A respirator should continue to be used during transport.
3. All personnel should avoid touching their face while working.
4. On arrival, after the patient is released to the facility, EMS clinicians should remove and discard PPE and perform hand hygiene. Used PPE should be discarded in accordance with routine procedures.
5. Other required aspects of Standard Precautions (e.g., injection safety, hand hygiene) are not emphasized in this document but can be found in the guideline titled: Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings.

E. Precautions for Aerosol-Generation Procedures

1. If possible, consult with medical control before performing aerosol-generating procedures for specific guidance.
2. In addition to the PPE described above, EMS providers should exercise caution if an aerosol-generating procedure (e.g., bag valve mask (BVM) ventilation, oropharyngeal suctioning, endotracheal intubation, nebulizer treatment, continuous positive airway pressure (CPAP), bi-phasic positive airway pressure (biPAP), or resuscitation involving emergency intubation or cardiopulmonary resuscitation (CPR) is necessary.
    a. BVMs, and other ventilatory equipment, should be equipped with HEPA filtration to filter expired air.
    b. EMS organizations should consult their ventilator equipment manufacturer to confirm appropriate filtration capability and the effect of filtration on positive-pressure ventilation.
3. If possible, the rear doors of the transport vehicle should be opened and the HVAC system should be activated during aerosol-generating procedures. This should be done away from pedestrian traffic.

F. EMS Transport of a PUI or Patient with Confirmed COVID-19 to a Healthcare Facility (including interfacility transport)

1. If a patient with an exposure history and signs and symptoms suggestive of COVID-19 requires transport to a healthcare facility for further evaluation and management (subject to EMS medical direction), the following actions should occur during transport:
    a. EMS providers should notify the receiving healthcare facility that the patient has an exposure history and signs and symptoms suggestive of COVID-19 so that appropriate infection control precautions may be taken prior to patient arrival.
    b. Keep the patient separated from other people as much as possible.
    c. Family members and other contacts of patients with possible COVID-19 should **not** ride in the transport vehicle, if possible. If riding in the transport vehicle, they should wear a facemask.
    d. Isolate the ambulance driver from the patient compartment and keep pass-through doors and windows tightly shut.
    e. When possible, use vehicles that have isolated driver and patient compartments that can provide separate ventilation to each area.
        1. Close the door/window between these compartments before bringing the patient on board.
        2. During transport, vehicle ventilation in both compartments should be on non-recirculated mode to maximize air changes that reduce potentially infectious particles in the vehicle.
        3. If the vehicle has a rear exhaust fan, use it to draw air away from the cab, toward the patient-care area, and out the back end of the vehicle.
        4. Some vehicles are equipped with a supplemental recirculating ventilation unit that passes air through HEPA filters before returning it to the vehicle. Such a unit can be used to increase the number of air changes per hour (ACH) (https://www.cdc.gov/niosh/hhe/reports/pdfs/1995-0031-2601.pdfpdf icon).

f. If a vehicle without an isolated driver compartment and ventilation must be used, open the outside air vents in the driver area and turn on the rear exhaust ventilation fans to the highest setting. This will create a negative pressure gradient in the patient area.
g. Follow routine procedures for a transfer of the patient to the receiving healthcare facility (e.g., wheel the patient directly into an Airborne Infection Isolation Room).

G. Documentation of Patient Care

1. Documentation of patient care should be done after EMS providers have completed transport, removed their PPE, and performed hand hygiene.
    a. Any written documentation should match the verbal communication given to the emergency department providers at the time patient care was transferred.
2. EMS documentation should include a listing of EMS clinicians and public safety providers involved in the response and level of contact with the patient (for example, no contact with patient, provided direct patient care). This documentation may need to be shared with local public health authorities.

H. Cleaning EMS Transport Vehicles after Transporting a PUI or Patient with Confirmed COVID-19

1. The following are general guidelines for cleaning or maintaining EMS transport vehicles and equipment after transporting a PUI:
    a. After transporting the patient, leave the rear doors of the transport vehicle open to allow for sufficient air changes to remove potentially infectious particles.
        1. The time to complete transfer of the patient to the receiving facility and complete all documentation should provide sufficient air changes.
    b. When cleaning the vehicle, EMS clinicians should wear a disposable gown and gloves. A face shield or facemask and goggles should also be worn if splashes or sprays during cleaning are anticipated.
    c. Ensure that environmental cleaning and disinfection procedures are followed consistently and correctly, to include the provision of adequate ventilation when chemicals are in use. Doors should remain open when cleaning the vehicle.
    d. Routine cleaning and disinfection procedures (e.g., using cleaners and water to pre-clean surfaces prior to applying an EPA-registered, hospital-grade disinfectant to frequently touched surfaces or objects for appropriate contact times as indicated on the product's label) are appropriate for SARS-CoV-2 (the virus that causes COVID-19) in healthcare settings, including those patient-care areas in which aerosol-generating procedures are performed.
    e. Products with EPA-approved emerging viral pathogens claims are recommended for use against SARS-CoV-2. These products can be identified by the following claim:
        1. "[Product name] has demonstrated effectiveness against viruses similar to SARS-CoV-2 on hard non-porous surfaces. Therefore, this product can be used against SARS-CoV-2 when used in accordance with the directions for use against [name of supporting virus] on hard, non-porous surfaces."

2. This claim or a similar claim, will be made only through the following communications outlets: technical literature distributed exclusively to health care facilities, physicians, nurses and public health officials, "1-800" consumer information services, social media sites and company websites (non-label related). Specific claims for "SARS-CoV-2" will not appear on the product or master label.

f. If there are no available EPA-registered products that have an approved emerging viral pathogen claim, products with label claims against human coronaviruses should be used according to label instructions.
g. Clean and disinfect the vehicle in accordance with standard operating procedures. All surfaces that may have come in contact with the patient or materials contaminated during patient care (e.g., stretcher, rails, control panels, floors, walls, work surfaces) should be thoroughly cleaned and disinfected using an EPA-registered hospital grade disinfectant in accordance with the product label.
h. Clean and disinfect reusable patient-care equipment before use on another patient, according to manufacturer's instructions.
i. Follow standard operating procedures for the containment and disposal of used PPE and regulated medical waste.
j. Follow standard operating procedures for containing and laundering used linen. Avoid shaking the linen.

I. Follow-up and/or Reporting Measures by EMS Clinicians After Caring for a PUI or Patient with Confirmed COVID-19

1. EMS clinicians should be aware of the follow-up and/or reporting measures they should take after caring for a PUI or patient with confirmed COVID-19:
   a. State or local public health authorities should be notified about the patient so appropriate follow-up monitoring can occur.
   b. EMS agencies should develop policies for assessing exposure risk and management of EMS personnel potentially exposed to SARS-CoV-2 in coordination with state or local public health authorities. Decisions for monitoring, excluding from work, or other public health actions for HCP with potential exposure to SARS-CoV-2 should be made in consultation with state or local public health authorities. Refer to the Interim U.S. Guidance for Risk Assessment and Public Health Management of Healthcare Personnel with Potential Exposure in a Healthcare Setting to Patients with Coronavirus Disease 2019 (COVID-19) for additional information.
   c. EMS agencies should develop sick-leave policies for EMS personnel that are nonpunitive, flexible, and consistent with public health guidance. Ensure all EMS personnel, including staff who are not directly employed by the healthcare facility but provide essential daily services, are aware of the sick-leave policies.
   d. EMS personnel who have been exposed to a patient with suspected or confirmed COVID-19 should notify their chain of command to ensure appropriate follow-up.
      1. Any unprotected exposure (e.g., not wearing recommended PPE) should be reported to occupational health services, a supervisor, or a designated infection control officer for evaluation.
      2. EMS providers should be alert for fever or respiratory symptoms (e.g., cough, shortness of breath, sore throat). If symptoms develop, they should self-isolate and notify occupational health services and/or their public health authority to arrange for appropriate evaluation.

Medical Authority/ Chain of Command

BCEMS GUIDELINES

A. This guideline discusses medical authority and chain of command for all BCEMS System encounters at a scene of a non-disaster medical emergency.
B. These guidelines provide direction of medical scene authority for all Bonner County Emergency Medical Services System Providers from Emergency Medical Responders (EMR) through Emergency Medical Technician – Paramedic (EMT-P) at the scene of a medical emergency.
C. Procedures to be followed at the scene of a non-disaster medical emergency when two or more EMS personnel are present:

1. The licensed or certified EMS responder with the highest level of training and certification, and who is therefore most medically qualified is vested with the authority for the provision of rendering emergency medical care. If no licensed EMS or certified health care professional is available, the authority will be vested in the most appropriate medically qualified representative of public safety agencies who may have responded to the scene of an emergency.
2. Authority for the management of the scene of an emergency will be vested in the appropriate public safety agency having primary investigative authority. The scene of an emergency will be managed in a manner designed to minimize the risk of death or health impairment to the patient and to other persons who may be exposed to the risks as a result of the emergency condition, and priority will be placed upon the interests of those persons exposed to the more serious and immediate risks to life and health. Such public safety agencies will follow the management principles of the Incident Command System (ICS). Public safety officials will consult Emergency Medical Services personnel or other health care professionals with authority at the scene in the determination of relevant risks.

D. Release of patients:

1. When patient care is transferred to another EMS practitioner, the initial practitioner must transfer care to an individual with an equivalent or higher level of training (e.g. EMT to EMT, ALS to ALS, ground to air medical crew) except in the following situations:
   a. Transfer to a lower level provider is permitted by applicable protocol or when ordered by a Medical Control Physician (e.g. ALS service releases patient care and/or transport to BLS service).
   b. Patient care needs outnumber EMS personnel resources at scene and waiting for an equivalent or higher level of care practitioner will delay patient treatment or transport.
   c. Whenever an EMS provider transfers patient care responsibility to another prehospital care provider, he/she is responsible for noting on the patient care report that such action took place. The responsible provider(s) is (are) required to document patient findings and treatments according to BCEMS System policy.

E. Medical management at the scene of a medical emergency includes:
   1. Medical Evaluation.
   2. Medical aspects of extrication and all movement of the patient(s).
   3. Medical care as directed by the BCEMS System Patient Care Treatment Guidelines.
   4. Determination of patient destination, in consultation with the Medical Control Facility when necessary.
   5. Transport code.

ON-SCENE MEDICAL PROVIDER

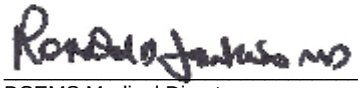
PURPOSE

A. At the scene of a medical emergency, a bystander may identify himself or herself as a licensed physician or registered nurse and this healthcare practitioner may want to direct the care of the patient.
B. At the scene of an incident, a medical control physician may identify himself or herself and want to provide on-scene medical control.

GUIDELINES

A. When a bystander at an emergency scene identifies himself/herself as a physician:
    1. Ask to see the physician's identification and credentials as a physician, unless the EMS practitioner knows them.
    2. Inform the physician of the regulatory responsibility to medical control.
    3. Immediately contact On-Line Medical Control facility and speak to the On-Line Medical Control Physician.
    4. Instruct the physician on scene in radio/phone operation and have the on scene physician speak directly with the On Line Medical Control Physician.
    5. The On-Line Medical Control Physician can:
        a. Request that the physician on scene function in an observer capacity only.
        b. Retain medical control but consider suggestions offered by the physician on scene.
        c. Permit the physician on scene to take responsibility for patient care. **NOTE: If the on scene physician agrees to assume this responsibility, they are required to accompany the patient to the receiving facility in the ambulance if the physician performs skills that are beyond the scope of practice of the EMS personnel or if the EMS personnel are uncomfortable following the orders given by the physician.**

        d. Under these circumstances, EMS practitioners will:
            i. Make equipment and supplies available to the physician and offer assistance.
            ii. Ensure that the physician accompanies the patient to the receiving facility in the ambulance.
            iii. Ensure that the physician signs for all instructions and medical care given on the patient care report. Document the physician's name on the ID PCR.
            iv. Keep the receiving facility advised of the patient and transport status. Follow directions from the on-scene physician unless the physician orders treatment that is beyond the scope of practice of the EMS practitioner.
            v. Have the physician sign the On-Scene Physician Release Form (1042).



B. When a bystander at an emergency scene identifies himself/herself as a registered nurse:
    1. Ask to see evidence of the nurse's license and prehospital credentials, unless the EMS practitioner knows them.
    2. Inform the nurse of the regulatory responsibility to Medical Control.
    3. An RN may provide assistance within their scope of practice or certification level at the discretion of the EMS crew when approved by the On-Line Medical Control Physician.

C. When a Medical Control Physician arrives on-scene as a member of the ambulance service's routine response:
    1. The Medical Control Physician may provide on-scene medical command orders to practitioners of the ambulance service if all of the following occur:
        a. The ambulance service has a prearranged agreement for the Medical Control Physician to respond and participate in on-scene medical control, and the ambulance service's Medical Director is aware of this arrangement.
        b. The Medical Control Physician is an active medical control physician with an on-line medical control facility that has an arrangement with the ambulance service to provide on-scene medical command.
        c. All orders given by the on-scene medical command physician must be documented either on the ID PCR for the incident or on the medical control facilities usual medical control form. This documentation must be kept in the usual manner of the on-line medical control facility and must be available for QI at the facility.
        d. The EMS personnel must be able to identify the On-Scene Medical Control Physician as an individual who is associated with the service to provide On-Scene Medical Control.
    2. If a Medical Control Physician who is not associated with the ambulance service arrives on-scene and offers assistance, follow the procedure related to bystander physician on scene (Guidelines section A).

ON-SCENE PHYSICIAN RELEASE FORM

Agency Name_____ Run # _____

WARNING: THE SIGNING OF THIS DOCUMENT CONSTITUTES THE ASSUMPTION OF LEGAL LIABILITY BY THE SIGNER FOR THE CARE AND TREATMENT OF THE PATIENT NAMED BELOW.

The physician whose signature appears below, by subscribing this instrument acknowledges that:

1. He/she is aware that the ambulance or agency providers, named above, called to attend the below named patient, is operating under the coordination of the Bonner County Emergency Medical Services System.
2. That the BCEMS System supplies coordination for Basic and Advanced Life Support Systems in this geographic area.
3. That there is available to the attending EMS providers named above, a communications system capable of eliciting advice and instruction for the care and treatment of this patient by trained physicians under a system of guidelines and procedures subscribed to by physicians in the geographic area served by the EMS System.
4. That the undersigned physician assumes full responsibility for the care and treatment of the patient named below, and by his or her signature, agrees to hereby forever release and discharge EMS System, its agents, servants or employees and the attending ambulance EMS providers and its/ their agents, servants or employees from any cause of action whatsoever, including but not limited to, any action ever as a defendant in a lawsuit brought by the patient or his or her heirs, executors, administrators or assigns against said BCEMS System and or the ambulance EMS providers named above, by reason of the care and treatment to said patient under the orders of said undersigned physician.

WARNING: THIS IS AN ASSUMPTION OF LEGAL RESPONSIBILITY FOR CARE OF THIS PATIENT AND AN INDEMNIFICATION TO AND RELEASE OF BCEMS AND THE ATTENDING AGENCY.

IN WINESS WEHEREOF,
I have hereunto set my hand and seal this _____day of _____, 20_____.

Physician signature

Physician _____Patient _____

Address_____ _____

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

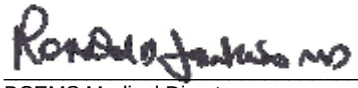
ON-SCENE OFF-DUTY EMS PROVIDER

PURPOSE

A. At the scene of a medical emergency, an off-duty BCEMS System provider may arrive at the scene prior to, or following the on-duty crew arrival, and offer service.
B. The purpose of these guidelines is to explicitly authorize the functioning of Bonner County Accredited EMS System Providers while off-duty, and delineate the drugs and equipment they are authorized to possess while off-duty. This policy applies to all prescription drugs and medical devices labeled "for sale by" or "on the authorization of a licensed physician." It does not apply to prescription drugs and devices for which the provider has a valid prescription for personal use from their physician.

GUIDELINES

A. Off-duty provision of patient care:
   1. Accredited Bonner County EMS System Providers are explicitly authorized to Provide Basic Life Support (BLS) and Advanced Life Support (ALS) while off-duty. This includes the use of automatic and manual defibrillators where available.
   2. Nothing in this policy shall require a Bonner County Accredited EMT or Paramedic personnel to provide BLS or ALS while off-duty.
   3. If an off-duty provider chooses to provide assistance to a patient already under the care of Bonner County EMS System personnel, it shall be at the request of, and coordinated by, the on-duty EMS personnel providing patient care. If only BLS Personnel are on scene, assistance may be provided only at the request of the incident commander.
   4. Overall patient care will remain the responsibility of the on-duty EMS personnel except at the specific request of the on-duty provider responsible for patient care and with the concurrence of the off-duty provider.
   5. In the situation where no EMS personnel are in attendance, the off-duty provider may render BLS or ALS care within their capabilities and available equipment **until** arrival of on-duty EMS personnel.
   6. Transfer of patient care will then be made to the on-duty personnel. Medical Authority/ Chain of Command guideline (1040) does not apply in this situation to the off-duty paramedic when potentially releasing patient to the care of another EMS practitioner with a lower level of training.
   7. The use of off-duty personnel is not to be encouraged as routine; similarly, EMS personnel are not encouraged to seek out off-duty participation in routine EMS patient evaluation and treatment.



B. Off-Duty Possession of Drugs and Medical Devices:

1. Accredited Bonner County advanced providers are authorized under this policy to possess advanced airway devices and adjuncts including laryngoscopes and endotracheal tubes while off-duty.
2. All ALS drugs, and all other devices, are NOT authorized for off-duty possession, by an EMS provider except under paragraph B(3):
3. All providers whose employer requires them to possess ALS supplies off- duty may apply to the Bonner County EMS System Medical Director for authorization to possess drugs and other medical devices off-duty. Simply "to be ready for an emergency" is not a sufficient reason for off-duty possession of drugs and medical devices. This application must describe the clear necessity for, and the circumstances under which, the drugs and/or medical devices will be used by the off-duty provider as well as the reason(s) why this need cannot be met by other EMS resources in the County. The application must list the specific drugs and/or medical devices requested to be possessed off-duty. This application must be accompanied by a letter of support from the provider's employer clearly describing the situation requiring the provider to carry drugs and devices off-duty.
4. If the Bonner County EMS System Medical Director concurs in the need for off-duty possession of drugs and/or medical devices, he or she will issue a specific authorization for the provider to possess ALS drugs and medical devices off-duty under this policy. This authorization must be renewed every 36 months and automatically expires upon termination of the provider's employment. If the new employment situation of the paramedic requires off-duty possession of drugs and medical devices, a new application is required.
5. Off-duty possession by EMS providers of controlled substances is explicitly prohibited under this policy.
6. Drugs or medical devices not required under a current Bonner County Patient Care Treatment Guideline are NOT authorized for off-duty possession under this policy.

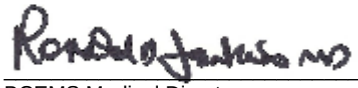
REFUSAL OF TREATMENT OR TRANSPORT

PURPOSE

A. Patients with illness or injury may refuse treatment or transport.
B. An individual with legal authority to make decisions for an ill or injured patient may refuse treatment or transport for that patient.
C. This guideline does not apply to patients involved in incidents, but not injured or ill.

GUIDELINES

A. Assess patient using Initial Contact and Patient Care Guidelines (2000).
    1. If the patient is combative or otherwise poses a potential threat to EMS practitioners, retreat from the immediate area and contact Law Enforcement.
    2. Consider ALS if a medical condition may be altering the patient's ability to make medical decisions (Guidelines for ALS Utilization-1010).
    3. Attempt to secure consent to treatment and or transport.
B. Assess the following using EMS Patient Refusal Checklist Form (1050F).
    1. Assess patient's ability to make medical decisions and understand consequences (e.g. alert and oriented x 4, no evidence of suicidal ideation/attempt, no evidence of intoxication with drugs or alcohol, ability to communicate an understanding of the consequences of refusal).
    2. Assess patient's understanding of risks to refusing treatment/transport.
    3. Assess patient for evidence of medical conditions that may affect ability to make decisions (e.g. hypoglycemia, hypoxia, hypotension).
    4. If acute illness or injury has altered the patient's ability to make medical decisions and if the patient does not pose a physical threat to the EMS practitioners, the practitioners may treat and transport the patient as per appropriate treatment protocol. Otherwise contact Medical Control. See Behavioral Emergency Guidelines (8000) and Patient Restraint Guidelines (1036) as appropriate.
C. Contact Medical Control if using the EMS Refusal Checklist and any response is completed within a shaded box or if patient assessment reveals at least one of the following:
    1. EMS practitioner is concerned that the patient may have a serious illness or injury.
    2. Patient has suicidal ideation, chest pain, shortness of breath, hypoxia, syncope, or evidence of altered mental status from head injury intoxication or other condition.
    3. Patient does not appear to have the ability to make medical decisions or understand the consequences of those decisions.
    4. The patient is less than 18 years of age.
    5. Vital signs are significantly abnormal.
D. If patient is capable of making and understanding the consequences of medical decisions and there is no indication to contact Medical Control or Medical Control has authorized the patient to refuse treatment or transport:
    1. Explain possible consequences of refusing treatment/transport to the patient
    2. Have patient and witness sign the EMS Refusal Checklist form.
    3. Consider the following:
        a. Educate patient/family to call back if patient worsens or changes mind.



   b. Have patient/family contact the patient's physician.
   c. Offer assistance in arranging alternative transportation.
4. Document: The assessment of the patient and details of discussions must be thoroughly documented on the patient care report (PCR), and EMS Patient Refusal Form 1050F. In the absence of a completed EMS Patient Refusal checklist, documentation in the PCR should generally include:
   a. History of event, injury, or illness.
   b. Appropriate patient assessment.
   c. Assessment of patient's ability to make medical decisions and ability to understand the consequences of decisions.
   d. Symptoms and signs indicating the need for treatment/transport.
   e. Information provided to the patient and/or family in attempts to convince the patient to consent to treatment or transport. This may include information concerning the consequences of refusal, alternatives for care that were offered to the patient, and time spent on scene attempting to convince the individual.
   f. Names of family members or friends involved in discussions, when applicable.
   g. Indication that the patient and/or family understands the potential consequences of refusing treatment or transport.
   h. Medical Control contact and instructions, when applicable.
   i. Signatures of patient and/or witnesses when possible.

Possible Medical Control Orders:

A. Medical Control Physician may request to speak with the patient, family, or friends when possible.
B. Medical Control Physician may order EMS personnel to contact law enforcement or mental health agency to facilitate treatment and/or transport against the patient's will. In this case, the safety of the EMS practitioners is paramount and no attempt should be made to carry out an order to treat or transport if it endangers the EMS practitioners. Contact law enforcement as needed.

NOTES:

1. If the patient lacks the capacity to make medical decisions, the EMS practitioner shall comply with the decision of another person who has the capacity to make medical decisions, is reasonably available, and who the EMS practitioner, in good faith, believes to have legal authority to make the decision to consent to or refuse care.
   a. The EMS practitioner may contact this person by phone.
   b. This person will often, but not always, be a parent or legal guardian of the patient. The EMS practitioner should ensure that the person understands why the person is being approached and the person's options, and is willing to make the requested treatment or transport decisions for the patient.
2. If the patient is 18 years of age or older, has graduated from high school, has married, has been pregnant, or is an emancipated minor, the patient may make the decision to consent to, or refuse treatment or transport. A minor is emancipated for the purpose of consenting to medical care if the minor's parents expressly, or implicitly by virtue of their conduct, surrender their right to exercise parental duties as to the care of the minor. If a minor has been married or has borne a child, the minor may make the decision to consent to or refuse treatment or transport of his or her child.
2. If a patient who has the capacity to make medical decisions refuses to accept recommended treatment or transport, the EMS practitioner should consider talking with a family member or friend of the patient. With the patient's permission, the EMS practitioner should attempt to incorporate this person's input into the patient's reconsideration of his or her decision. These persons may be able to convince the patient to accept the recommended care.
3. For minor patients who appear to lack the capacity or legal authority to make medical decisions:
   a. If the minor's parent, guardian, or other person who appears to be authorized to make medical decisions for the patient is contacted by phone, the EMS practitioner should have a witness confirm the decision. If the decision is to refuse the recommended treatment or transport, the EMS practitioner should request the witness to sign the refusal checklist form.
   b. If a person who appears to have the authority to make medical decisions for the minor cannot be located, and the EMS practitioner believes that an attempt to secure consent would result in delay of treatment which would increase the risk to the minor's life or health, the EMS practitioner shall contact a Medical Control Physician for direction. The physician may direct medical treatment and transport of a minor if an attempt to secure the consent of an authorized person would result in delay of treatment which the physician reasonably believes would increase the risk to the minor's life or health. If the EMS practitioner is unable to contact a Medical Control Physician for direction, the EMS practitioner may provide medical treatment to the minor patient and transport the minor patient without securing consent. An EMS practitioner may provide medical treatment to and transport any person who is unable to give consent for any reason, including minor status, where there is no other person reasonably available who is legally authorized to refuse or give consent to the medical treatment or transport, providing the EMS practitioner has acted in good faith and without knowledge of facts negating consent.

Ronald Jackson MD

BCEMS Medical Director

4. The medical control physician may wish to speak directly to the patient if possible. Speaking with the Medical Control Physician may cause the patient to change his or her mind and consent to treatment or transport.

Performance Parameters:

1. Compliance with completion of the EMS Patient Refusal checklist for every patient that refuses transport.
2. Compliance with Medical Control Physician contact when indicated by criteria listed in protocol.

REFUSAL OF TREATMENT CHECKLIST FORM

EMS Service:_____ Date:_____Time: _____
Patient Name:_____Age: _____ Phone #:_____ Incident
Location:_____Incident # _____ Situation of
Injury/Illness:_____

Check marks in shaded areas require consult with Medical Control before patient release

Patient Assessment:

Suspected serious injury or illness based upon patient
History, mechanism of injury, or physical examination: __Yes __No
18 years of age or older: __Yes ___No Any evidence of: Suicide attempt? _____Yes ___No
Head Injury? _____Yes ___No
Patient Oriented to: Person: __Yes ___No Intoxication? _____Yes ___No
Place _____Yes ___No Chest Pain? _____Yes ___No
Time _____Yes ___No Dyspnea? _____Yes ___No
Event _____Yes ___No Syncope? _____Yes ___No

Vital Signs:	Consult Medical Control If:	If altered mental status or diabetic:
Pulse_____	<50bpm or >100bpm	Chemstrip/Glucometer:____mg/dl <60mg/dl
Sys BP_____	<90mm Hg or >200mmHg	
Diastolic BP___	<50mm Hg or >100mmHg	If chest pain, S.O.B. or altered mental status –
Resp Rate_____	<12rpm or >24rpm	SpO2 (if available): _____% < 90%

Risks explained to patient: _____
Patient understands clinical situation __Yes __No
Patient verbalizes understanding of risks __Yes __No
Patient's plan to seek further medical evaluation:
_____

Medical Control (MCP):

MCP contacted:_____ Facility:_____Time: _____
MCP spoke to patient: __Yes __ No MCP not contacted Why?_____
Medical Control orders: _____

Patient Outcome:

_____Patient refuses transport to a hospital against EMS advice
_____Patient accepts transportation to hospital by EMS but refuses any or all treatment offered (specify treatments refused:_____)
_____Patient does not desire transport to hospital by ambulance, EMS believe alternative treatment/transportation plan is reasonable

This form is being provided to me because I have refused assessment, treatment and/or transport by EMS personnel for myself or on behalf of this patient. I understand that EMS personnel are not physicians and are not qualified or authorized to make a diagnosis and that their care is not a substitute for that of a physician. I recognize that there may be a serious injury or illness which could get worse without medical attention even though I (or the patient) may feel fine at the present time. I understand that I may change my mind and call 911 if treatment or assistance is needed later. I also understand that treatment is available at an emergency department 24 hours a day. I acknowledge that this advice has been explained to me by the EMS personnel and that I have read this form completely and understand its terms.

_____ _____ _____
Signature (Patient or Other) Date EMS Provider Signature

_____ _____
If other than patient, print name and relationship to patient Witness Signature

Ronald Jackson MD
_____
BCEMS Medical Director

NON-TRANSPORT OF PATIENTS OR CANCELLATION OF RESPONSE

PURPOSE

A. EMS providers may be cancelled before arriving at the scene of an incident.
B. EMS provider may be dispatched to respond and encounter an individual who denies injury/illness and has no apparent injury/illness when assessed by the EMS provider.
C. This protocol does not apply to an on-scene EMS provider evaluating a patient who is ill or injured but refuses treatment or transport – see Guideline 1050.

PROCEDURE:

A. Cancellations:
   1. After being dispatched to an incident, an ALS or BLS provider may cancel its response when following the direction of a dispatch center. Reasons for response cancellation by the dispatch center may include the following:
      a. When the dispatch center diverts the responding provider to an EMS incident of higher priority, as determined by the dispatch center's EMD protocols, and replaces the initially responding provider with another EMS provider, the initial provider may divert to the higher priority call.
      b. When the dispatch center determines that another EMS service can handle the incident more quickly or more appropriately.
      c. When EMS personnel on scene determine that a patient does not require care beyond the scope of practice of the on-scene provider, the EMS practitioner may cancel additional responding EMS providers. This includes cancellation of providers responding to patients who are obviously dead (see Code Black/Do Not Resuscitate Protocol (1054).
      d. When law enforcement or fire department personnel on scene indicate that no incident or patient was found, these other public safety services may cancel responding EMS providers.
      e. When the dispatch center is notified that the patient was transported by privately owned vehicle or by other means (caller, police, or other authorized personnel on the scene).
      f. When BLS is transporting a patient that requires ALS, ALS may be cancelled if it is determined that ALS cannot rendezvous with the BLS provider in time to provide ALS care before the BLS ambulance arrives at the hospital.
      g. The responding provider should proceed to the scene non-emergently if the on-scene individual recommending cancellation is not an EMS practitioner.

B. Persons involved but not injured or ill:
    1. The following apply if an individual for whom an EMS provider has been dispatched to respond denies injury/illness, and has no apparent injury/illness when assessed by the EMS practitioner:
        a. Assess mechanism of injury or history of illness, patient symptoms, and assess patient for corresponding signs of injury or illness.
        b. If individual declines care, there is no evidence of injury or illness, and the involved person has no symptoms or signs of injury/ illness, then the EMS practitioner has no further obligation to this individual.
        c. If it does not hinder treatment or transportation of injured patients, documentation on the EMS PCR should, at the minimum, include the following for each non-injured patient:
            i. Name.
            ii. History, confirming lack of significant symptoms.
            iii. Patient assessment, confirming lack of signs or findings consistent with illness/injury.
        d. If serious mechanism of injury, symptoms of injury or illness, or physical exam findings are consistent with injury or illness, follow Patient Refusal of Treatment or Transport (1050).

QA Parameters:

A. Review cases of cancellation of ALS by BLS personnel for appropriateness.

SAFE HAVEN

PURPOSE

A. The Idaho *Safe Haven* Act is intended to provide a safe alternative for parents who otherwise might abandon their infant. Parents can remain anonymous, but may volunteer medical or other information. Parents using *Safe Haven* will not be prosecuted for child abandonment.
B. Emergency medical personnel may respond to a 911 call requesting *Safe Haven* or be presented with an **infant under 30 days old** at a Transport or Non-Transport EMS agency.

GUIDELINES

A. When contacted by a custodial parent with a request for *Safe Haven*, proceed with the following steps:
   1. Determine if parent is requesting *Safe Haven* and expresses an intention not to reclaim the child.
   2. Provide aid to protect and preserve the physical health and safety of the child.
   3. If law enforcement is not en route or present at scene, notify dispatch to send law enforcement to place child in protective custody.
   4. Do not ask for identity of the parent and, if known, keep confidential.
   5. Accept voluntary information given by the parent regarding the health history of the parent or the child.
   6. Transport child to hospital in a child safety seat.
   7. Report any voluntary information to the hospital personnel while keeping the identity of parent and child confidential, if known.
   8. Record encounter on *Patient Care Report* or run report and document type of call as "Other" with *Safe Haven* listed on the line below "Other".
   9. More information may be requested from the **Idaho Care Line at 1-800-926-2588**

Safe Haven Act

Definition: Under Idaho law, a mother or her designee may safely relinquish care and custody of a newborn child under the age of 30 days to medical personnel, including EMS providers. The mother may retain anonymity, but may volunteer medical or other information. Mothers using Safe Haven will not be prosecuted for child abandonment. This protocol refers to any abandoned infant.

Clinical Presentation: It may be difficult to determine age of infant; this protocol should be used for any abandoned infant. The infant may have symptoms of hypothermia, hypoglycemia, and dehydration.

Special Care

BLS

Basic Life Support

1. Refer to Pediatric General Assessment guideline
2. Obtain vital signs
3. Assure newborn is warm and dry
4. Assess and maintain airway patency, administer 10-15 lpm of O_2 via NRB
   a. If respirations are ineffective, begin BVM ventilations with 100% O_2
   b. Suction airway as needed
5. Check glucose (refer to Blood Glucometry guideline**)
   a. Refer to Hypoglycemia guideline as indicated
6. Refer to Assessment of the Neonate protocol as needed
7. Transport for medical evaluation

ALS

Advanced Life Support

1. Follow BLS procedures
2. Place patient on cardiorespiratory monitor and continuous pulse oximeter
3. Continue airway maintenance
   a. Consider intubation if unable to adequately ventilate or oxygenate child
4. Assess for signs of shock and obtain IV/IO if necessary
   a. Give NS or LR 10 mL/kg
   b. Give D10W, if glucose <60 mg/dL
5. Transport for medical evaluation.

Key Points/Considerations

1. Offer mother medical care and treatment.
2. Acrocyanosis may be normal in the infant.
3. Determine if parent is requesting *Safe Haven* and expresses an intent not to reclaim the child.
4. If law enforcement is not en route or present at scene, notify dispatch to send law enforcement to place child in protective custody.
5. Per *Safe Haven* law (IDAPA…), do not ask for identity of the parent and, if known, keep confidential.
   a. You may ask if they wish to provide medical or other information about the baby.
   b. If transporting the child to a hospital, report any voluntary information to the hospital personnel
6. For additional information:
   a. Call the Idaho CareLine at 211 or 1-800-926-2588, or
   b. Log onto www.idahoems.org, click the 'Safe Haven' link on the left-hand side

Safe Haven Act cont.

Medication/Treatments Table

Medication	Dose	Route	Max Dose	Authorizing Method
D10W	2ml/kg	IV/IO	Call for repeated doses	
Oral Glucose D5W	30 mL	PO	Call for repeated doses	

ABUSE, NEGLECT/ MANDATORY REPORTING

CHILD ABUSE

A. The following situations may be associated with child abuse:
   1. Poor nutrition and/or care including unsanitary or dangerous environment.
   2. Delay in seeking treatment for obviously significant medical problem.
   3. Patient, parent, or caregiver providing significantly differing histories of injury or illness.
   4. History of minor trauma in a child with extensive physical injuries.
   5. Caregiver ascribes blame for serious injuries to a younger sibling or playmate.

B. Possible physical exam findings associated with such abuse or neglect may include:
   1. Injured child less than two years old, especially hot water burns (stocking or glove scald burns), burns to buttocks and genitalia, and long bone fractures.
   2. Facial, mouth or genital injuries.
   3. Multi-planar injuries (front and back, right and left).
   4. Injuries of different ages (old and new).
   5. Comatose child with no clear cause.
   6. Critically ill or injured child with no clear cause.
   7. Child in cardiac or respiratory arrest with no clear cause.
   8. Adult human bites.
   9. Injuries with clear demarcation matching the shape of the item used.
   10. Child who is withdrawn, passive, or depressed. Does not look for comfort from parents.

ELDER ABUSE

A. The following situations may be associated with elder abuse:
   1. Implausible explanation of physical findings.
   2. Delay in seeking care for illness or injury.
   3. "Doctor shopping," frequent emergency department visits or frequent use of emergency medical services (NOTE: This statement must not be mistaken for those persons who have serious illness and legitimate reasons for utilization of acute care medical services).
   4. Fear or distancing self from caregiver.
   5. Caregiver's refusal to leave elder alone.

B. Possible physical exam findings associated with such abuse or neglect may include:
   1. Bruises in unusual areas (inner arm, torso, buttocks, scalp).
   2. Patterned or multicolored bruises of different ages, abrasions or burns.
   3. Clothing soiled or inappropriate for season.
   4. Inadequate care of nails, teeth or skin.
   5. Pressure sores (decubitus ulcers).
   6. Bruised and/or bleeding genitalia, perineum or anal area.
   7. Dehydration, malnutrition or unexpected weight loss.
   8. Unsafe or unhygienic living environment.

PROCEDURES

A. All patients:
    1. Treat any injuries/illness according to Initial Patient Contact (2000).
    2. When time permits, perform a visual inspection of the patient's surroundings looking for injury or abuse risk factors that may be associated with the patient's complaints.
    3. Appropriate EMS Practitioner patient/family interaction:
        a. **DO NOT** question or accuse the caretaker in cases of possible abuse or neglect.
        b. **DO NOT** discuss possible abuse or neglect issues with the patient in the presence of the abuser or other family members.
    4. Transport, if possible. Protect the individual from additional harm by encouraging transport to receiving facility, even if injuries appear to be minor.
        a. If transported to receiving facility, report concerns to staff at receiving facility and to appropriate agencies as required.
        b. If patient, parent or guardian refuses transport, see Refusal of Treatment or Transport Guidelines (1050).
            i. Contact medical Control.
            ii. If the Medical Control Physician agrees, contact the Law Enforcement authority having jurisdiction or the appropriate County Protective Services Agency.
            iii. **DO NOT** endanger yourself or the EMS crew by inciting a confrontation with family members, relatives or caregivers. If you feel threatened, leave the scene for a safe refuge and immediately contact Law Enforcement Agency having jurisdiction.
    5. Report suspicion of abuse or neglect to appropriate authorities as required whether or not the patient was transported.
        a. Always report suspicion of child or elder abuse or neglected to the receiving physician.
        b. In cases where reporting of suspected abuse is required, it remains the EMS practitioner's responsibility to assure that these reports have been made to the proper law enforcement agency or the Idaho Department of Health and Welfare (IDHW).
        c. The local Law Enforcement Agency must be contacted if the EMS provider believes that the patient is in imminent danger of death or serious injury. They should also be contacted when there is evidence of physical or sexual abuse, since these two forms of abuse constitute assault.
        d. Knowing whether or not abuse has occurred is sometimes difficult.

DOCUMENTATION AND MANDATORY REPORTING

A. Mandatory Reporting: Idaho law requires mandatory reporting by health care practitioners, including EMS practitioners, of any child in whom there is reasonable cause to suspect abuse.
    1. Suspected Child Abuse (minors under 18 years of age):

   a. If an EMS practitioner has reasonable cause to suspect that a child (minor) has been abused or neglected, the practitioner must report the suspected abuse.
   b. **According to Title 16, Chapter 16 of Idaho Code, EMS personnel having any reason to believe that a child under the age of 18 has been abused, abandoned or neglected, or is being subjected to conditions or circumstances which could result in abuse, abandonment or neglect, are required to report or cause to be reported within 24 hours such conditions or circumstances to the proper law enforcement agency or the Idaho Department of Health and Welfare (IDHW).**
2. Suspected Elder Abuse (individuals 60 years of age or older):
   a. If an EMS practitioner has reasonable cause to suspect that an individual 60 years of age or older needs protective services, the practitioner may report that information.
   b. "Protective services" are activities, resources and supports to detect, prevent or eliminate abuse, neglect, exploitation, and abandonment.
   c. The suspected abuse or concerns may be reported to the local provider of protective services.
3. Documentation
   a. The documentation for an EMS contact with a potential victim of abuse or neglect must be comprehensive and objective in nature. Do not make the diagnosis of abuse.
   b. Document history of present illness/injury in detail, but avoid taking the patient's complaints out of context. Note pertinent positives and negatives only as the patient or caregiver answered them, not as the EMS practitioners believe they may exist.
   c. Document physical findings exactly as they appear, but avoid making statements that cannot be attested to in a court of law (exact age of contusions, exact cause of injury, etc.).
   d. Document environmental and household findings exactly as they appear, but avoid making generalizations and editorial comments (i.e. "numerous overfilled trash cans," rather than "the house was a mess").
   e. Document which authorities were contacted and when.

CODE BLACK/ DO NOT RESUSCITATE (DNR)

INCLUSION CRITERIA

A. Patients who are in cardiac or respiratory arrest displaying a Physician Order for Scope of Treatment (POST) form, bracelet, or necklace, or purple vinyl bracelet with "IDAHO POST DNR" printed in white letters.
B. DNR forms from another state that are materially similar to an Idaho POST form are valid and may be followed by EMS personnel.

EXCLUSION CRITERIA

A. Patient does not display, and patient surrogate does not physically produce, a POST form, bracelet, or necklace.
B. A POST form may be revoked by a patient or their surrogate at any time. If the patient or surrogate communicates to an EMS practitioner their intent to revoke the order, the EMS practitioner shall provide CPR if the individual is in cardiac or respiratory arrest.
C. Patient is not in cardiac or respiratory arrest.

COMFORT MEASURES WHEN NO IDAHO POST FORM IS AVAILABLE

A. Patient does not display, and patient surrogate does not physically produce, a POST form, bracelet, or necklace; however compelling reasons may permit EMS providers to withhold resuscitation from a patient in cardiac arrest when two criteria are BOTH present:
    1. End stage of a terminal condition
    2. Written or verbal instructions from the patient, family member or caregiver stating that the patient did not want resuscitation
B. If both criteria are not met, a resuscitation effort should be initiated.
C. If both criteria are met, a resuscitation effort should be withheld.
    1. If resuscitation was already started, assist with CPR and contact Medical Control immediately to request an order to stop CPR.
    2. If there is discomfort among family members or doubt of the validity of compelling reasons, initiate CPR.
    3. Provide documentation of BOTH compelling reasons when they are used as a basis for withholding resuscitation.

TREATMENT

A. All patients in cardiac or respiratory arrest:
   1. Follow Scene Safety (1030) and Infection Control (1031) Guidelines.
   2. Verify the presence of a valid ID POST DNR form, bracelet, or necklace.
   3. Obtain reasonable assurance that the patient is the person for whom the POST DNR form applies.
   4. If there is any question of whether the POST form is valid, or the patient or their surrogate has revoked the order, the EMS practitioner shall:
      a. Initiate resuscitation using appropriate guidelines, and
      b. Contact Medical Control as soon as possible
   5. Verify pulselessness or apnea.
   6. If a bystander has already initiated CPR:
      a. Assist with CPR and contact Medical Control immediately.
   7. If CPR has not been initiated before the arrival of EMS personnel:
      a. The POST DNR shall be honored and CPR shall be withheld.
      b. Contact the local county coroner.

Possible Medical Control Orders:

A. The Medical Control Physician may order termination of resuscitation efforts if CPR was not initiated by EMS personnel.

Note:

1. A POST-DNR form, bracelet or necklace is of no consequence unless the patient is in cardiac or respiratory arrest, if vital signs are present, the EMS practitioner shall provide medical interventions as necessary and appropriate to provide comfort to the patient and alleviate pain unless otherwise directed by the patient or a Medical Control Physician. Follow appropriate treatment protocols.
2. Certain situations may suggest that a resuscitation effort will be futile, inappropriate or inhumane in the setting of a patient with a terminal disease or diagnosis. Patients who are mentally competent have the right to refuse medical care, including resuscitation. Patients who are dying have the same rights. EMS providers have the responsibility to determine a patient's wishes and honor them whenever possible.

Examples of DNR Identification Jewelry

Performance Parameters:

A. Review all cases for documentation of presence of an ID DOH recognized POST-DNR order, bracelet, or necklace, or in their absence, a list of BOTH compelling reasons to withhold resuscitation.

IDAHO POST FORM

Print Form

IDAHO POST IDAHO POST IDAHO POST IDAHO POST IDAHO POST IDAHO POST IDAHO POST

Idaho Physician Orders For Scope of Treatment (POST)

*THIS FORM MUST BE SIGNED BY A **PHYSICIAN** IN **SECTION E** TO BE VALID*

If any section is NOT COMPLETE, provide the most treatment included in that section

EMS: If questions arise, contact on-line Medical Control

Patient's Last Name: Lastname
Patient's First Name: Firstname
Date of Birth: 1/11/1911
☒ Male ☐ Female

Section A (Select only one box)

Cardiopulmonary Resuscitation: Patient does not have a pulse and/or is not breathing:

☐ **Resuscitate (Full Code)**

☒ **Do Not Resuscitate (No Code): Allow Natural Death; Patient does not want any heroic or life-saving measures.**

If patient is not in cardiopulmonary arrest, please follow the orders found in **B**, and **C**.

Section B

Medical Interventions: Patient has a pulse and/or is breathing:

☒ **Comfort Measures:** Please treat patient with dignity and respect. Reasonable measures are to be made to offer food and fluids by mouth and attention must be paid to hygiene. Medication, positioning, wound care, and other measures shall be used to relieve pain and discomfort. Use oxygen, suction and manual treatment of airway obstruction as needed for comfort. **These measures are to be used where patient lives, do not transfer to hospital for life-sustaining treatment. Transfer only if comfort needs cannot be met in current location.**

☐ **Limited Additional Interventions:** In addition to the care described above, you may include cardiac monitoring and oral/IV medications. Transfer to hospital if indicated but do not use intubation or advanced airway interventions. **Do not admit to Intensive Care.**

☐ **Aggressive Interventions:** In addition to the care described above, you may include endotracheal intubation, advanced airway interventions, mechanical ventilation and cardioversion as indicated. **Receiving hospital may admit to Intensive Care if indicated.**

☐ **Other Instructions:**

Section C

Artificial Fluids and Nutrition:
☐ Feeding tube ☒ No Feeding tube
☐ IV fluid ☒ No IV fluid
☐ Other Instructions:

Antibiotics and Blood Products:
☐ Antibiotics ☒ No Antibiotics
☐ Blood Products ☒ No Blood Products
☐ Other Instructions

Section D

Advance Directives: The following documents also exist:
☒ Living Will ☐ DPA ☒ DPAHC ☐

Section E

Patient/Surrogate Signature:

Firstname Lastname — Print Patient/Surrogate Name
Patient — Relationship
Jul 3, 2007 — Date

Physician Signature:

First Last, MD — Print Physician's Name
M-123456 — Idaho License Number
Jul 3, 2007 — Date

Discussed with: ☒ Patient ☐ Spouse ☐ DPA ☐ DPAHC ☐ Other

The basis for these orders is: ☒ Patient's request ☐ Patient's known preference ☐

FORM SHALL ACCOMPANY PATIENT WHENEVER TRANSFERRED OR DISCHARGED

IDAHO POST IDAHO POST IDAHO POST IDAHO POST IDAHO POST IDAHO POST IDAHO POST

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

CODE BLACK/ DEAD ON ARRIVAL (DOA)

INCLUSION CRITERIA

A. Any patient presenting with one of the following:
   1. Physical decomposition of the body.
   2. Rigor mortis (Caution: do not confuse with stiffness due to cold environment)
   3. Dependent lividity (venous pooling in dependent body parts).
   4. Decapitation.
   5. Unwitnessed cardiac arrest of traumatic cause.
   6. Traumatic cardiac arrest in entrapped patient with severe injury that is not compatible with life, such as severe blunt or penetrating trauma.
   7. Incineration.
   8. Submersion greater than 1 hour.
   9. DNR status is confirmed. See DNR Guideline (1054).
   10. In cases of mass casualty incidents where the number of seriously injured patients exceeds the personnel and resources to care for them, any patient who is apneic and pulseless may be triaged as DOA.

EXCLUSION CRITERIA

A. Obviously pregnant patient with cardiac arrest after trauma, if cardiac arrest was witnessed by EMS practitioners and with a short ETA to the receiving facility. These patients should receive resuscitation and immediate transport to the closest receiving facility.
B. Accidental hypothermia. These patients may be apneic, pulseless, and stiff. Resuscitation should be attempted in hypothermia cases unless body temperature is the same as the surrounding temperature and other signs of death are present (decomposition, lividity, etc.). See Hypothermia (6040).
C. Treatable arrhythmia such as VT or VF.

TREATMENT

A. All patients with signs of death:
   1. Initial Patient Contact (2000).
   2. Verify absence of pulse and apnea.
   3. Verify patient meets DOA criteria listed above.
      a. If any doubt exists, initiate resuscitation and follow Cardiac Arrest Guideline (3000) and contact On-Line Medical Control.
      b. If patient meets DOA criteria listed above, ALS should be cancelled.
   4. On-Line Medical Control must be contacted and must confirm withholding of resuscitative measures.
   5. If the scene is a suspected crime scene, see Crime Scene Preservation Guidelines (1058).
   6. In all cases where death has been determined, notify the Coroner or Investigating Agency. Remain on scene until arrival of Law Enforcement or Coroner. Follow the

direction of the County Coroner Office/Investigating Agency regarding custody of the body.

7. Document in PCR the reason No Resuscitation was initiated. Document all conversations with On-Line Medical Control Physicians and instructions given.

Possible Medical Control Orders:

A. If CPR was initiated, but the Medical Control Physician is convinced that the efforts will be futile, the MCP may order termination of the resuscitation efforts.

Notes:

1. In the case of multiple patients from lightning strike, available resources should be committed to treating the patients with no signs of life unless they meet the other criteria listed above.

Performance Parameters:

A. Review all cases for documentation of DOA criteria listed above.

AUTHORIZATION TO PROVIDE NETS

NON-EMERGENCY TRANSFER GUIDELINES

A. EMS providers may be called to provide non-emergent, transfers (NETS) of patients who because of medical reasons, cannot or should not be transferred safely by private transportation.
B. The purpose of these guidelines is to establish parameters for transfer and treatment, and to maintain the continuity of care of both stable and unstable patients.
C. Types of non-emergency transfers.
    1. Nursing care facilities to hospital or medical offices and return.
    2. Immediate care/ urgent care facility to hospital/ emergency room.
    3. Hospital to hospital generally for higher level of care.
    4. Home to hospital or medical office for scheduled care, when medically necessary to transfer by ambulance.
D. NETS will be categorized by the level of care required
    1. BLS: No invasive equipment or monitoring except basic vital signs. Only oxygen can be used and no IVs.
    2. ILS: Can have IVs running (NS, D5W, D51/2 NS, LR), or lock (NS or heparin). Can have oxygen, but no other medications running, and no new medications for the prior 30 minutes.
    3. ALS: Can have IVs running (NS, D5W, D51/2 NS, LR), or lock (NS or heparin). Medications can be running if within current Idaho EMSPC scope of practice and provider training, and up to two IVs running on pumps. Specifically, nitroglycerin, heparin and dopamine (if not being actively titrated) can be utilized. Patients can have cardiac monitoring, can be intubated, and ventilators managed only if within the scope of practice and training for the EMS Provider. Patients may require deep suctioning.
    4. Certain situations inappropriate for NETS and requiring CCT (1057) include:
        a. Administration of blood, second dose of antibiotics, Eptifibatide (Integrelin), Dobutamine, and Nitroglycerin and Dopamine when titrated
        b. Ventilator patients or airway when changes are expected or needed
        c. IV pumps with more than two channels or drugs running at once
        d. Patients who are unstable with high chance of deterioration
E. Exclusions of non-emergent transfers.
    1. Caller requests emergent transfer for any reason.
    2. Patient has a serious life-threatening diagnosis such as acute Stroke or Acute Myocardial Infarction and requires transfer to a center for a higher level of care. These patients require Critical Care Transport (CCT), Guideline (1057).
    3. Caller desires transfer to medical office or hospital for convenience rather than a valid medical reason for requiring EMS assistance.
E. There clearly exists a category of patients who require urgent but not emergent transfer. These patients may require urgent attention, but may be stable and not require ALS management en-route. If care is needed urgently, these should be treated and managed like any 911 call.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

1. Patients with fractures identified at urgent care facilities where a higher level of care (such as surgery) is required.
2. Patients presenting at medical offices with symptoms requiring non-emergent hospitalization, but unable or unsafe to make the journey by private means.
3. Patients presenting with gradual deterioration at nursing homes requiring urgent hospital evaluation, but not requiring ALS services.

RESPONSIBILITY FOR CARE/ REGULATIONS

A. Under these guidelines, the health and well being of the patient must be the overriding concern when any patient transfer is considered.
B. How and when a patient is transferred, rests mainly on the sending institution and the physician(s) directly in charge in the care of the patient.
C. Physicians, as well as hospitals and other medical facilities must follow strict guidelines when a transfer of a patient is "indicated". These guidelines, provided under provisions of the Consolidated Omnibus Budget Reconciliation Act (COBRA), and the Federal Emergency Medical Treatment and Labor Act (EMTALA) dictate how, and when a patient should be transferred, assuring a medical evaluation is completed and other guidelines have been followed according to the law.

ASSESSMENT PRIOR TO TRANSFER

A. It is important to ensure within reasonable medical probability that no material deterioration of the condition is likely to result from or occur during the transfer.
    1. If the patient is unstable, then they first must be stabilized within the emergency treatment capacity of their current facility.
    2. The transfer service must have the appropriate staff and equipment available to complete the transfer safely.
B. If a patient's condition is likely to deteriorate while in transit, but is relatively certain to deteriorate if there is not a transfer, and the patient has been treated to the highest level of care at the sending facility, then the benefits of transfer outweigh the risk of non-transfer. This patient however will require Critical Care Transport (CCT).
C. The transfer provider must ensure the following:
    1. Obtain report on patient, verify orders, (obtain copy of drug order if not on license), and document reasons for transfer.
    2. Adequate personnel and equipment are available to transfer the patient safely.
    3. Collect all relevant records to provide to the receiving facility.
    4. Establish and evaluate adequacy of airway, ventilation and oxygen needs.
    5. Assess need for any extremity or spinal immobilization.
    6. Assess vital signs on all patients. If unstable, please discuss readings with patient's nurse/physician, and reassess adequacy of staff and equipment for transfer, or whether further stabilization may be required prior to transfer.
    7. Establish and/or maintain adequate access routes (IV) for fluid/drug administration. Check for patency and document fluid type, etc. (if indicated).
    8. Determine if EKG or oxygen saturation monitoring will be necessary.
    9. Determine if restraints will be necessary (Patient Restraint -1036).

CONSIDERATIONS DURING TRANSFER

A. If the patient's condition deteriorates en route, the most senior EMS provider shall determine if the patient should be transported to the closest medical facility, or continue to complete the transfer to the planned receiving facility.
    1. Administer appropriate care and treatment via established guidelines, and contact Medical Control as necessary and indicated by guidelines.
    2. All possible BLS and ALS care SHALL be rendered to the patient, when appropriate for sudden changes in condition.
B. Monitor all vital signs en-route, document and treat any changes, as indicated.
C. Upon arrival of the receiving institution, give report on the patient to appropriate staff. Transfer over any medications on pumps, correct drug dosage, monitor, etc.
D. If receiving facility is a freestanding diagnostic testing center, and if these facilities do not have the appropriate staff and/or equipment to handle the patient, then the EMS provider should maintain care and stay with the patient until the receiving facility can provide appropriate care.
E. If transferring to a facility, a copy of the PCR should be left with the facility to become part of the patient's medical record.

CRITICAL CARE TRANSPORTS (CCT)

PURPOSE AND REGULATION

A. The purpose of this policy is to establish a uniform procedure for inter-facility or Scene to facility transfers of patients requiring ongoing critical care.
    1. Patient transfer is a physician-to-physician referral. In the case of Scene to facility transfers, the Medical Control Physician will be the "transferring physician" and will contact the Receiving Physician directly.
    2. It is the responsibility of the transferring facility to perform a screening examination, determine if transfer to another facility is in the patient's best interest and to initiate appropriate stabilization measures prior to transfer.
    3. Responsibility for the patient during transport lies with the transferring physician until the patient arrives at the receiving facility.
    4. Inter-facility transfers must begin or end at a facility with the Medical Control Authority for this policy and procedure to apply.

B. The Critical Care Transport Guidelines establishes minimum requirements for critical care patient inter-facility transports utilizing licensed EMS personnel and vehicles.
    1. All inter-facility transfers will meet the requirements of the Emergency Medical Treatment and Active Labor Act (EMTALA), Section 1395dd, subsection (c) 1 and (c) 2 regarding patient stabilization and appropriate transfers.

C. Patients appropriate for Critical Care Transport include:
    1. Conditions that are serious, life-threatening, and inherently unstable such as Acute MI, stroke, hyperkalemia, serious arrhythmia, respiratory failure, anaphylaxis, status epilepticus etc.
    2. Serious multiple trauma, critical burns, amputations, head or spinal injury
    3. Complicated childbirth, Eclampsia.
    4. Certain clinical patient requirements:
        a. Administration of blood, second dose of antibiotics, Eptifibatide Dobutamine, Nitroglycerin and Dopamine when actively titrated
        b. Ventilator patients or airway when changes are expected or needed
        c. IV pumps with more than two channels or drugs running at once
        d. Patients who appear unstable with high chance of deterioration

INTER-FACILITY TRANSFER PROCEDURE

A. The transferring physician is responsible for securing the acceptance of the patient by an appropriate physician at the receiving facility.
B. Care initiated by the transferring facility may need to be continued during transport.
C. The Transferring Physician will determine the treatment to be provided during the period of the patient transport, and what, if any, staff will be necessary to accompany the patient en route.
D. Additional health care personnel may accompany the patient under the direction of the Transferring Physician, who is responsible for ensuring their qualifications.
    1. This person(s) shall be responsible for the direct patient care during transport, and will render care to the patient under the orders of the Transferring Physician.
    2. All medications anticipated in these situations will be provided by the transferring facility and be under control of the Responsible Health Care Provider.
    3. It will be the responsibility of the transferring facility to provide arrangements for the return of staff, equipment, and medications.
E. If the Transferring Physician elects to transfer the patient in the care of a nurse or a paramedic, the physician must provide written orders to the nurse or paramedic prior to transfer.
    1. The orders must be consistent with the ALS and CCT training, scope of practice and abilities.
    2. The nurse or paramedic has the right to decline transport if he/she is convinced patient care is outside their scope of practice and training or, alternatively, to insist a hospital staff member accompany them on the transfer.
F. Infusing medications may require the use of a programmable pump to be supplied by the transporting service or transferring facility. Providers must have received training in the use of both the medication(s) and the pump.
G. Should questions or problems arise during transfer, the crew may contact the Transferring Physician. If this is not possible or in event of an emergency, the appropriate guidelines should be followed and the receiving Medical Control contacted for direction.
H. Any medications used from the ALS Drug Box will be recorded by the provider on the PCR.
I. The following information should accompany the patient (**Do not delay the transfer in acute situations**). Documentation may be sent electronically/fax.
    1. Copies of pertinent hospital records
    2. Written orders during transport
    3. Any other pertinent information including appropriate transfer documents.
J. Documentation must include the interventions performed en-route and by whom the intervention was performed, and condition of patient upon transfer to the receiving facility. Also provide hard copy of any EKGs performed during the entire encounter.

K. All critical care patient transports must be licensed as transporting ALS vehicles.

Ronald Jackson MD

BCEMS Medical Director

1. The following minimum equipment will be carried by an ALS vehicle while it is providing critical care patient transport.
    a. Pulse Oximeter
    b. Portable ventilator or staff capable of providing ventilatory support
    c. Portable Infusion Pump(s)
    d. Pressure infusion bag(s)

L. Staffing
1. All critical care patient inter-facility transports will be staffed in accordance with at least one (1) licensed critical care trained Nurse or Paramedic trained in all equipment and medications to be used and one EMT (or AEMT).
2. The above requirement for staffing does not apply to the transportation of a patient by an ambulance if the patient is accompanied in the patient compartment of the ambulance by an appropriate licensed health professional designated by a physician and after a physician-patient relationship has been established.

M. Training
1. Critical Care Transport training and certification will be offered periodically within Bonner and Kootenai Counties.
2. Only Registered Nurses (or Nurse Practitioners) and certified Paramedics will be eligible for CCT training.
3. Only providers who have completed CCT training certified by the BC EMS System Medical Director may provide CCT inter-facility transport.

SCENE TO FACILITY TRANSFER PROCEDURE

A. The Medical Control physician is responsible for securing the acceptance of the patient by an appropriate physician at the receiving facility, for Scene to Facility Transfers.
B. Care initiated by the EMS providers may need to be continued during transport.
C. The Medical Control physician will determine the treatment to be provided during the period of the patient transport, and what, if any, staff will be necessary to accompany the patient en-route.
D. Additional Health Care Personnel may accompany the patient under the direction of the Medical Control Physician, who is responsible for ensuring their qualifications.
    1. This person(s) shall be responsible for the direct patient care during transport, and will render care to the patient under the orders of the Medical Control Physician.
    2. All medications anticipated in these situations must be either already available in the ambulance, or in the possession of the Responsible health Care Provider and under their control.
    3. This person may be a Nurse who is picked up en-route (i.e at Bonner General Hospital), or a Paramedic joining the team by means of a chase vehicle.
    3. It will be the responsibility of BC EMS System to provide arrangements for the return of staff, equipment, and medications.

E. If the Medical Control Physician elects to transfer the patient in the care of a nurse or a paramedic, the physician must provide verbal orders to the nurse or paramedic

prior to transfer for any orders necessary beyond written ALS or CCT Guidelines. Alternatively, the Medical Control Physician may provide for direct communication of the Responsible Health care Provider with the Receiving Physician for further orders (such as may occur in the case of STEMI (5010) Scene to Facility transports).

1. The orders must be consistent with the ALS and CCT training, scope of practice and abilities.
2. The nurse or paramedic has the right to decline transport if he/she is convinced patient care is outside their scope of practice and training or, alternatively, to insist that an additional hospital staff member accompany them on the transfer

F. Infusing medications may require the use of a programmable pump to be supplied by the transporting service. Providers must have received training in the use of both the medication(s) and the pump.

G. Should questions or problems arise during transfer, the crew may contact the Medical Control Physician. If this is not possible or in event of an emergency, the appropriate guidelines should be followed and the receiving Medical Control and/or the Receiving Physician contacted for direction.

H. Any medications used from the ALS Drug Box will be recorded by the provider on the PCR.

I. Documentation must include the interventions performed en-route and by whom the intervention was performed, and condition of patient upon transfer to the receiving facility. Also document orders from either Medical Control (transferring or receiving) and from the Receiving Physician. EKGs sent electronically to the receiving facility or physician shall also be provided in hard copy on arrival.

J. All Critical Care Patient Transports must be licensed as transporting ALS vehicles.

1. The following minimum equipment will be carried by an ALS vehicle while it is providing critical care patient transport.
    a. Pulse Oximeter
    b. Portable ventilator or staff capable of providing ventilatory support
    c. Portable Infusion Pump(s)
    d. Pressure infusion bag(s)

L. Staffing

1. All Critical Care Patient Scene to Facility Transports will be staffed in accordance with at least one (1) Paramedic trained in all equipment and medications to be used and one EMT (or AEMT).

M. Training

1. Critical Care Transport training and certification will be offered periodically within Bonner and Kootenai Counties.
2. Only Registered Nurses (or Nurse Practitioners) and certified Paramedics will be eligible for CCT training.
3. Only providers who have completed CCT training as certified by the BC EMS System Medical Director will be credentialed to provide CCT Scene to Facility Transports.

CRIME SCENE PRESERVATION

PURPOSE

A. EMS providers may be called to evaluate a patient where a crime may have been committed. These guidelines discuss appropriate behaviors for EMS personnel during any encounter at a location that is the suspected as a potential scene of a crime.

EXCLUSION CRITERIA

A. The safety of the EMS personnel is of paramount importance, and these guidelines do not come before the principles outlined in the Scene Safety Guidelines (1030).
B. These guidelines provide general information related to crime scene preservation.
C. These guidelines are not designed to supersede an EMS agency's policy; however, this general information may augment the policy.
D. These guidelines do not comprehensively cover all possible situation, and EMS practitioner judgment should be used when the agency's policy does not provide specific direction.

PROCEDURES

A. Once a crimes scene is deemed safe by law enforcement, initiate patient contact and provide life saving measures: [1, 2]
    1. Never cut through holes in clothing created by bullets or knives.
    2. Retain all clothing, place in a paper bag.
    3. When transporting a patient who may be dying, ascertain name and/or description of assailant, if possible.
    4. When transporting a patient consider requesting a law enforcement officer to accompany the patient in the ambulance to the hospital.
    5. Have all EMS providers use the same path of entry and exit. Do not walk through fluids on the floor.
    6. Consider wearing gloves for all patient care and other activities within the crime scene.
B. In cases of obvious death, **DO NOT** move the body:
    1. Leave the scene the same way you entered.
    2. Leave the scene in the same condition as when you entered.
    3. Do not allow anyone to enter the scene until police arrive.
    4. Contact medical control for directions to withhold resuscitative measures and do not touch the body.
C. Notify the investigating law enforcement officer of any alteration of the crime scene by EMS personnel including:
    1. Any movement of furniture, tables, etc., by providers.
    2. The original position of the items.
    3. If you turned on lights.
    4. What you touched, moved, etc.
D. At an outdoor crime scene, do not disturb shoe prints; tire marks, shell casings, etc.
    1. Limit movement at the crime scene.
    2. Attempt to keep others out of the area.

E. Firearms/Weapons:
    1. Do not move firearms (loaded or unloaded) unless it poses a potential immediate threat.
    2. Secure any weapon that can be used against you or the crew out of the reach of the patient and bystanders.
        a. Guns should be handed over to a low enforcement officer if possible or placed in a locked space, when available.
        b. Place two fingers on the barrel of the gun and place in a secure area.
        c. Do not unload a gun.
        d. Knives should be placed in a locked place, when available.
    3. Do not clean or disturb a patient's hands (when involved with a firearm). Consider covering a patient's hands with a paper bag during treatment/transport.
    4. Listen for conversations overheard at the crime scene. Report any conversations to law enforcement officials.

Notes:

1. Your first duty is to provide emergency medical care at the scene of an illness/injury. Do not sacrifice patient care to preserve evidence.
2. Certain measures can be taken to assist law enforcement personnel in preserving a crime scene without jeopardy to the patient.
3. Inform staff at the receiving hospital this is a "crime scene" patient.
4. For traffic accidents, preserve the scene by parking away from skid marks and debris.

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

Section 2000

Assessment and Documentation Guidelines

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

INITIAL PATIENT CONTACT

PURPOSE

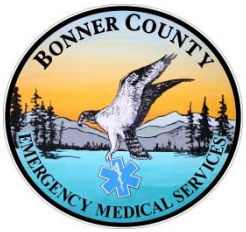
A. These guidelines describe procedures recommended for initial evaluation of patients and the scene to which a provider may be called.
B. A systematic approach can be helpful to quickly size up the situation, determine if resources are adequate and begin evaluation and treatment.

PROCEDURES

A. Scene Size-Up
    1. Evaluate scene safety – see Guideline (1030).
        a. If scene is unsafe and cannot be made safe, do not enter.
    2. Utilize appropriate Body Substance Isolation / Universal Precautions – see Infection Control Guidelines (1031).
    3. Determine Mechanism of injury (MOI) or nature of illness and number of patients.
        a. Initiate local or regional Mass Casualty Plan, if the number of surviving patients exceeds five or there are four or more critical patients. Call for additional BLS/ ALS ambulances, and additional resources as needed.
    4. Summon Air Medical Transport, if indicated and available (1017).
B. Initial Assessment
    1. For trauma patients, stabilize cervical spine during assessment.
    2. Perform initial assessment.
        a. Form a general impression of the patient.
        b. Determine the chief complaint and/or life threatening problems.
        c. Determine responsiveness.
        d. Assess airway and breathing.
        e. Assess circulation.
    3. Assure open airway.
        a. Proceed with obstructed airway treatment if needed (Procedure 9010).
    4. If pulseless, proceed to appropriate guidelines:
        a. DOA guideline (1055),or DNR Guideline (1054) if indicated, or
        b. Cardiac Arrest Guideline (3000), or
        c. Cardiac Arrest, Traumatic Guideline (3001) if a traumatic injury is clearly responsible for patient's cardiac arrest.
    5. If breathing is inadequate, ventilate patient as needed.
    6. If priority condition exists, administer high flow oxygen, treat immediately, and transport with reassessment and treatment by applicable guidelines while en-route to the appropriate medical facility. Priority conditions are:
        a. Unable to obtain open airway
        b. Poor general impression
        c. Altered mental status and not following commands
        d. Difficulty breathing/ inadequate ventilation.
        e. Hypoperfusion (Shock).

Ronald Jackson MD

BCEMS Medical Director



f. Complicated childbirth
g. Chest pain with SBP< 100
h. Uncontrolled bleeding
i. Severe pain, anywhere

7. If no priority condition exists, obtain history (SAMPLE & PQRST) and perform focused physical exam.
8. Treat and transport per applicable guidelines.

HISTORY TAKING

PURPOSE

A. These guidelines describe procedures recommended for initial collection in the field of historical data regarding events leading to accident or injury, as well as a focused past medical history as it pertains to the acute situation.
B. A systematic approach is recommended to allow rapid assessment and treatment.
C. Every patient encounter by EMS will be documented. History taking skills are a key component in the evaluation of any patients requiring provider assistance.

PROCEDURES

A. Medical Patients
    1. Chief complaint; determine the patient's main or most serious problem
        a. Onset.
            i. When did the symptom start?
            ii. When did they become worse or severe?
            iii. Has this symptom occurred before?
        b. Quality.
            i. What does it feel like?
            ii. Is it constant, or waxing and waning?
            iii. Is it affected by other bodily functions such as breathing?
            iv. Is there radiation to other parts of the body such as with pain?
        c. Quantity.
            i. How severe is it (1-10 scale may be helpful).
        d. Duration.
            i. How long has the symptom been present?
            ii. Is the symptoms still present?
        e. Relief/aggravation.
            i. Does anything make it better or worse?
            ii. Has the patient taken anything to relieve the symptoms?
            iii. What was the patient doing when the symptoms started?
        f. Associated symptoms.
            i. Are there other new symptoms related to main symptom (such as diaphoresis, pain, dyspnea, nausea, vomiting, dizziness, bleeding, fever).
    2. Associated complaints: questioning the same as for chief complaint.
    3. Relevant past medical history (including treating physicians).
        a. Have the current symptoms occurred previously?
        b. What previous evaluation has been done for these symptoms?
        c. Are there risk factors present to suggest certain diseases?
            i. For coronary disease, is there diabetes, smoking history, high cholesterol, hypertension, family history?
            ii. For pulmonary embolism, is there recent extremity trauma, immobility, orthopedic surgery?

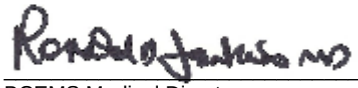
iii. For seizures, is there recent fever, prior head trauma, brain tumor, stroke?
iv. For stroke, is there a history of hypertension, high cholesterol, family history, smoking history, carotid bruits?
v. For pneumonia, has there been fever, cough, shaking chills, productive sputum?

4. Allergies.
5. Medications and drugs
    a. Chronic medications (including if taken today)
    b. Over the counter (OTC) medications
    c. Compliance with physician instructions.
6. Survey of surroundings for evidence pertaining to drug abuse, mental functioning, family problems, etc.
7. Information regarding events from family or witnesses to incident/symptoms.

B. Trauma Patients
1. Identify the Mechanism of Injury (cause, implements, trajectory, force, vehicular speeds, condition of vehicles, etc.)
2. Chief complaint: Obtain history of chief symptoms and complaints as detailed above for medical complaints.
3. Relevant past medical history.
4. Allergies.
5. Medications and drugs: Chronic, OTC, and compliance
6. Information regarding events from witnesses to accident/event.

C. Consider use of **SAMPLE** mnemonic
1. **S**ign & Symptoms
2. **A**llergies
3. **M**edication
4. **P**ast Medical History
5. **L**ast Meal
6. **E**vents Preceding Incident

D. Notes
1. Do not let the gathering of information distract you from the management of life threatening problems.
2. Appropriate questioning can provide valuable information while establishing your authority, competence and rapport with patient.
3. Partner should be used for gathering information from patient or bystanders.
4. Use bystanders to confirm information obtained from patient and to provide facts when patient cannot. History from the scene is invaluable: you are the only one who can obtain this.
5. Consider any medical cause for trauma, particularly in single person accidents (i.e. MVA due to having an acute stroke, diabetic problem or MI).
6. Look for a patient medical alert tag and *POST* form or tag.
7. All history is to be accurately and completely documented on the Patient Care Report (PCR) per the Documentation Procedure.



HISTORY TAKING

PURPOSE

A. These guidelines describe procedures recommended for initial collection in the field of historical data regarding events leading to accident or injury, as well as a focused past medical history as it pertains to the acute situation.
B. A systematic approach is recommended to allow rapid assessment and treatment.
C. Every patient encounter by EMS will be documented. History taking skills are a key component in the evaluation of any patients requiring provider assistance.

PROCEDURES

A. Medical Patients
    1. Chief complaint; determine the patient's main or most serious problem
        a. Onset.
            i. When did the symptom start?
            ii. When did they become worse or severe?
            iii. Has this symptom occurred before?
        b. Quality.
            i. What does it feel like?
            ii. Is it constant, or waxing and waning?
            iii. Is it affected by other bodily functions such as breathing?
            iv. Is there radiation to other parts of the body such as with pain?
        d. Quantity.
            j. How severe is it (1-10 scale may be helpful).
        d. Duration.
            i. How long has the symptom been present?
            ii. Is the symptoms still present?
        e. Relief/aggravation.
            i. Does anything make it better or worse?
            ii. Has the patient taken anything to relieve the symptoms?
            iii. What was the patient doing when the symptoms started?
        f. Associated symptoms.
            i. Are there other new symptoms related to main symptom (such as diaphoresis, pain, dyspnea, nausea, vomiting, dizziness, bleeding, fever).
    2. Associated complaints: questioning the same as for chief complaint.
    3. Relevant past medical history (including treating physicians).
        a. Have the current symptoms occurred previously?
        b. What previous evaluation has been done for these symptoms?
        c. Are there risk factors present to suggest certain diseases?
            i. For coronary disease, is there diabetes, smoking history, high cholesterol, hypertension, family history?
            ii. For pulmonary embolism, is there recent extremity trauma, immobility, orthopedic surgery?

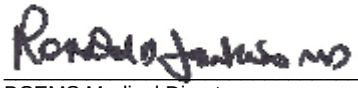
iii. For seizures, is there recent fever, prior head trauma, brain tumor, stroke?
iv. For stroke, is there a history of hypertension, high cholesterol, family history, smoking history, carotid bruits?
v. For pneumonia, has there been fever, cough, shaking chills, productive sputum?

4. Allergies.
5. Medications and drugs
    a. Chronic medications (including if taken today)
    b. Over the counter (OTC) medications
    c. Compliance with physician instructions.
6. Survey of surroundings for evidence pertaining to drug abuse, mental functioning, family problems, etc.
7. Information regarding events from family or witnesses to incident/symptoms.

B. Trauma Patients
1. Identify the Mechanism of Injury (cause, implements, trajectory, force, vehicular speeds, condition of vehicles, etc.)
2. Chief complaint: Obtain history of chief symptoms and complaints as detailed above for medical complaints.
3. Relevant past medical history.
4. Allergies.
5. Medications and drugs: Chronic, OTC, and compliance
6. Information regarding events from witnesses to accident/event.

C. Consider use of **SAMPLE** mnemonic
1. **S**ign & Symptoms
2. **A**llergies
3. **M**edication
4. **P**ast Medical History
5. **L**ast Meal
6. **E**vents Preceding Incident

D. Notes
8. Do not let the gathering of information distract you from the management of life threatening problems.
9. Appropriate questioning can provide valuable information while establishing your authority, competence and rapport with patient.
10. Partner should be used for gathering information from patient or bystanders.
11. Use bystanders to confirm information obtained from patient and to provide facts when patient cannot. History from the scene is invaluable: you are the only one who can obtain this.
12. Consider any medical cause for trauma, particularly in single person accidents (i.e. MVA due to having an acute stroke, diabetic problem or MI).
13. Look for a patient medical alert tag and *POST* form or tag.
14. All history is to be accurately and completely documented on the Patient Care Report (PCR) per the Documentation Procedure.



WRITTEN REPORTS/ PCR DOCUMENTATION

PURPOSE

A. An EMS patient care report form (PCR) will be completed accurately and legibly to reflect the patient assessment, patient care and interactions between EMS and the patient, for each patient contact which results in some assessment component.

PROCEDURES

A. Document the total patient care provided on the Patient Care Report Form (PCR):
   1. System data regarding the EMS systems response.
   2. Dispatch information regarding the dispatch complaint, and EMD run number.
   3. Care provided prior to EMS arrival.
   4. Exam of the patient as required by each specific complaint based guideline.
   5. Past medical history, medications, allergies, living will / DNR (POST form or jewelry), and personal MD.
   6. All times related to the event.
   7. All procedures and their associated time.
   8. All medications administered with their associated times.
   9. Disposition and / or transport information.
   10. All communication with medical control.
   11. Signature of EMS personnel providing care.
   12. Signature of treatment authorization if any deviation from guidelines.
   13. Signature of receiving individual assuming patient care at the medical facility.

B. Document the reason for inability to complete or document any of the above items.

C. Notes:

1. The patient care report should be completed as soon as possible after the time of the patient encounter (when possible before leaving facility).

2. All patient interactions are to be recorded on the PCR form or the disposition form (if refusing care).

3. A copy of the PCR form should be provided to the receiving medical facility.

4. A copy of the patient care report form is to be filed at the IDHW EMS office.

5. A copy of the PCR is to be filed at the individual EMS Agency Provider office.

6. A “tech sheet” providing a written summary of vital signs, pertinent times and treatment provided shall be given the ED staff when a completed PCR cannot be given to the ED staff prior to departure to another call.

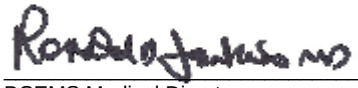
7. A systematic approach for providing completed PCR documents to the receiving hospitals is strongly encouraged.

8. **Documentation will be completed within 24 hours or prior to the end of the Provider’s shift, whichever comes first.**

9. Currently the CHART format will be utilized for PCR reporting.

QA Parameters:

A. PCR documentation will be completed within 24 hours of incidents 95% of the time.



BCEMS Medical Director
Effective: 07/01/19

VITAL SIGNS

PURPOSE

A. Vital signs are a key component in the evaluation of any patient and a complete set of vital signs is to be documented for any patient who receives some assessment.
B. All vital signs obtained by EMS providers on the scene will be documented on the Patient Care Report Form (PCR).

PROCEDURES

A. An initial complete set of vital signs includes:
    1. Pulse rate
    2. Systolic AND diastolic blood pressure
    3. Respiratory rate
    4. Pulse oximetry (with documentation of any supplemental Oxygen)
    5. Pain severity (when appropriate to patient complaint)
B. When no ALS treatment is provided, palpated blood pressures and pulse are acceptable for repeat vital signs.
C. If the patient refuses this evaluation, the patient's mental status and the reason for refusal of evaluation must be documented.
    1. A Refusal of Treatment or Transport form (1050F) must also be completed. Follow Refusal of Treatment or Transport Guideline (1050).
D. Document situations that preclude the evaluation of a complete set of vital signs.
E. Record the time any vital signs are obtained.
F. Any abnormal vital sign should be repeated and monitored closely, following appropriate guidelines for the specific complaint.

PEDIATRIC ASSESSMENT

SCENE SIZE-UP AND GENERAL APPROACH

A. Scene Size-Up
   1. Note anything suspicious at the scene (i.e. medications, household chemicals, other ill family members etc.
   2. Assess for any discrepancies between the history and the patient presentation (e.g. infant fell on hard floor but there is carpet throughout the house).

B. General Approach to the Stable/ Conscious Pediatric Patient
   1. Utilize the PAT (Pediatric Assessment Triangle) to gain a general impression of the child.
   2. Assessments and interventions must be tailored to each child in terms of age, size and development.
   3. Smile, if appropriate to the situation.
   4. Keep voice at an even, quiet tone- do not yell.
   5. Speak slowly. Use simple age appropriate terms.
   6. Keep small children with their caregiver(s) whenever possible and complete assessment while the caregiver is holding the child.
   7. Kneel down to the level of the child if possible.
   8. Be cautious in the use of touch. In the stable child, make as many observations as possible before touching (and potentially upsetting) the child.
   9. Adolescents may need to be interviewed without their caregivers present if accurate information is to be obtained regarding drug use, alcohol use, LMP, sexual activity or child abuse.
   10. Observe general appearance and determine if behavior is age appropriate.
   11. Observe for respiratory distress and evidence for pain.
   12. Evaluate the position of the child.
   13. Evaluate the level of consciousness.
   14. Evaluate muscle tone (normal vs. limp).
   15. Assess movement (spontaneous, purposeful, symmetrical).
   16. Evaluate color (pink, pale, cyanotic, mottled).
   17. Observe obvious injuries, bleeding, bruising, deformities etc.
   18. Determine weight (ask caregiver or use Broselow tape).

INITIAL ASSESSMENT

A. Airway access/ maintenance with C-Spine control
   1. Maintain with assistance/ positioning.
   2. Maintain with adjuncts (nasal or oral airway).
   3. Maintain with endotracheal tube.
   4. Listen for audible airway noises (stridor, snoring, gurgling, wheezing).
   5. Patency: suction secretions as necessary.

B. Breathing
    1. Rate and rhythm of respirations; compare to normal rate for age and situation.
    2. Chest expansion-is it symmetrical?
    3. Breath sounds-compare both sides and listen for normal and abnormal sounds.
    4. Positioning-evaluation of possible sniffing position, tripod position
    5. Work of breathing-evaluate retractions, nasal flaring, accessory muscle use, head bobbing, grunting.
C. Circulation
    1. Heart Rate- compare to normal rate for age and situation.
    2. Central pulses (e.g. brachial, carotid, femoral) - strong, weak or absent.
    3. Distal/ Peripheral pulses (radial) - present or absent, thready, weak or strong.
    4. Color- pink, pale, flushed, cyanotic, mottled.
    5. Skin temperature- hot, warm, cool, or cold.
    6. Blood pressure- use appropriately sized cuff and compare to normal for age.
    7. Hydration status- observe anterior fontanel in infants, mucous membranes, skin turgor, crying tears, urine output, history to determine recent intake.
D. Disability- Brief neurological examination:
    1. Assess responsiveness- APGAR or TICLS
    2. Assess pupils
    3. Assess for transient numbness/ tingling
E. Expose and Examine
    1. Expose the patient as appropriate based on age and severity of illness.
    2. Initiate measures to prevent heat loss and keep the child from becoming hypothermic.

RAPID ASSESSMENT VS. FOCUSED HISTORY AND PHYSICAL ASSESSMENT

A. Tailor assessment to the needs and age of the patient.
B. Rapidly examine areas specific to the chief complaint.
C. Responsive medical patients:
    1. Perform focused assessment based on chief complaint.
    2. A full review of systems may not be necessary. If the chief complaint is vague, examine all systems and proceed to detailed exam.
D. Unresponsive medical patients:
    1. Perform rapid assessment (i.e. ABCs & a quick head-to-toe exam).
    2. Render emergency care based on signs and symptoms, initial impression and standard operating procedures.
    3. Proceed to detailed examination.
E. Trauma patients with no significant mechanism of injury:
    1. Focused examination is based on specific injury site.
F. Trauma patients with significant mechanism of injury:
    1. Perform rapid assessment of all body systems and then proceed to detailed examination.

DETAILED ASSESSMENT

A. Sample Assessment
   1. SAMPLE history- acquire/ incorporate into physical examination.
   2. Vital Signs (pulse, BP, respirations, skin condition, pulse oximetry)
   3. Assessment performed (usually en route) to detect non life-threatening conditions and to provide care for those conditions or injuries.

ONGOING ASSESSMENT

A. To effectively maintain awareness of changes in the patient's condition
   1. Repeated assessments are essential and should be performed at least every 5 minutes on the unstable patient, and at least every 15 minutes on the stable patient.

PEDIATRIC TREATMENT GUIDELINES

A. Follow most appropriate Idaho EMS Pediatric Patient Care Treatment Guidelines for the patient condition based on chief complaint, when specific pediatric BCEMS guidelines are not available for a specific pediatric indication.

ASSESSMENT AND MANAGEMENT OF PAIN

ADULT ASSESSMENT

A. Rationale
   1. All patients expressing verbal or behavioral indicators of pain shall have an appropriate assessment and management of pain when present.
   2. Measurement of a patient's pain is subjective; therefore, she/he is the best determinant of the presence and severity of his or her pain.

B. Assessment of pain by personal history:
   1. Severity: Assess and document the scale/intensity using the numeric intensity Scale equivalent of 0-10 (0 = no pain; 10 = worst pain ever).
   2. Quality: Ask patient for descriptors of pain (e.g. sharp, dull, stabbing, pulsating, crushing, tearing, nagging etc.)
   3. Onset: Ask when pain began and when it became severe.
   4. Duration: Is this a chronic condition or new? How long has it been present?
   5. Relief/ Aggravation: Does anything make it better or worse?
   6. Associated symptoms: Are there new symptoms associated with the pain?
   7. Prior treatment: How has it been treated so far? Is the patient taking prescription medication for pain?

C. Assessment of pain by objective clues: Some patients may not be able to verbally express their discomfort.
   1. Rapid heart rate
   2. Diaphoresis
   3. Grunting groaning, moaning noises
   4. Grimacing during examination
   5. Rapid labored respirations

D. Reassessment and documentation of a patient's pain shall be performed following any intervention that may affect pain intensity.

TREATMENT

A. Determine appropriate form(s) of pain management as indicated.
   1. Initial pain management should include as appropriate any of the following interventions:
      a. Repositioning,
      b. Bandaging and splinting with or without traction
      c. Cold packs, elevation
      d. Psychological coaching and reassurance.
      e. Reassess pain intensity.

B. Subsequent pain management following interventions:
   1. If a patient's pain is assessed as Moderate to Severe (5 –10) and no contraindications are noted, the patient should be offered treatment for pain.

Ronald Jackson MD

2. IV access should be considered
3. Consider Ketorolac (Toradol), given 15-30 mg IV or 30-60 mg IM for mild to moderate pain.
4. Consider Fentanyl, given 25-100 microgram, slow IVP for discomfort. Fentanyl may be repeated q 5 minutes up to a maximum dose of 300 mcg.
5. Prior to the administration of Fentanyl, and prior to each repeat dose, the patients pain and vital signs should be reassessed. The patient must have a SBP >90 mmHg, respirations >12, and be awake enough to report pain.
6. In lieu of IV narcotics, inhaled Nitrous Oxide may be useful in settings of orthopedic trauma or dislocations, chest pain, kidney stones, urinary retention, burns, and labor pain.
7. Alternate options for pain management in the Wilderness setting include Ibuprofen, 200-800 mg PO q 8 hours, and Acetaminophen, 250-1,000 mg PO q 4-6 hours (max dose 3 grams/24 hours). Prior to administration of NSAIDs and or non-opioid analgesics, evaluate possible contraindications and assess hydration status.
8. In patients for whom initial attempts at opiate pain relief are not successful, consider Ketamine 10 mg IVP, repeated as needed, to a dose of 0.3 mg/kg. Ketamine may also be considered as the initial drug of choice in patients with hypotension, concerns about possible respiratory suppression or those with chronic pain syndromes wherein opiates may be a less optimal choice.
9. Consider Versed IV, 0.5-1.0 mg after the last administered dose of Ketamine to avoid emergence phenomenon.

C. Precautions and Comments:

1. Toradol is contraindicated in the presence of advanced renal impairment, hypersensitivity to the drug or history of GI bleeding or peptic ulcer disease, history of asthma or allergic reactions after taking Aspirin or other NSAIDs.
2. Fentanyl is contraindicated for the following conditions: Childbirth or active labor, closed head injury, sudden onset of acute headache, altered mental status related to injury, SBP less than 90 mmHg, respiratory rate less than 12.
3. Treatment of pain with Fentanyl should be used with caution in chronic pain conditions.
4. Treatment of pain with Ibuprofen and/or Acetaminophen should be used with caution in patients with chronic kidney disease, hepatic disease or history of GI bleeding with peptic ulcer disease/ulcers.
5. Inhaled Nitrous Oxide is contraindicated in the presence of altered metal status, intoxication, facial burns, facial trauma, chest trauma including pneumothorax, undiagnosed abdominal pain, respiratory distress, congestive heart failure, pulmonary hypertension, eye surgery, decompression sickness, B12 deficiency, head trauma and the first two trimesters of pregnancy.
6. Medical Control consultation is recommended in patients with abdominal pain of unknown etiology.
7. An accurate and thorough assessment of pain requires that an initial assessment and on-going assessments be performed and documented. This provides clinicians with a baseline to compare subsequent evaluations of the patient's pain.

Ronald Jackson MD

8. Any standard pain assessment tool using a scale of 0-10 may be used to evaluate the adult's pain. If the patient is unable or unwilling to scale his or her pain, the patient's words and behavioral clues should be documented prior to treatment and after each intervention.

PEDIATRIC PAIN ASSESSMENT

A. Rationale
   1. All pediatric patients expressing verbal or behavioral indicators of pain shall have an appropriate assessment and management of pain as needed.
   2. Measurement of a patient's pain is subjective: therefore, the patient is the best determinant of the presence and severity.
   3. Prior treatment for pain provided by the patient, friends or family members.

B. Assessment Tools
   1. Determine the most appropriate means to asses the pediatric patient's level of pain based upon age and developmental level. This policy includes three pediatric assessment tools that are recommended for use (A6):
      a. FLACC Behavior Pain Scale (< 3 years),
      b. Baker-Wong Faces Scale (3-7 years),
      c. Visual Analog Scale (>8 years).

C. Assessment Findings:
   1. Discomfort: **P**rovocation, **Q**uality, **R**egion, **R**adiation, **S**everity, **T**ime of onset/duration.
      a. Assess and document the severity/intensity using the numeric intensity scale equivalent of 0-10 (0=no pain; 10=worst pain ever). All three pain assessment tools allow for this.
      b. Reassessment and documentation of a patient's pain shall be performed following any intervention that may affect pain intensity.
      c. An accurate and thorough assessment of pain requires that an initial assessment and ongoing assessments be performed and documented. This provides clinicians with a baseline to compare subsequent evaluations of the patient's pain.
      d. Any standard pain assessment tool using a scale of 0-10 may be used to evaluate the adult's pain. If the patient is unable or unwilling to scale his or her pain, the patient's words and behavioral clues should be documented prior to treatment and after each intervention.
      e. The administration of pain medication for pediatric patients is contraindicated in the following situations:
         i. Known or suspected head injuries (GCS < 15).
         ii. Signs or symptoms of shock or hypo-perfusion presents.

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

Section 3000

Resuscitation

CARDIAC ARREST

Prehospital Management of Cardiac Arrest

History	Signs and Symptoms	Assessment
▪ Events leading to arrest ▪ Estimated downtime ▪ Past medical history ▪ Medications ▪ Existence of terminal illness Signs of lividity, rigor mortis ▪ DNR, Idaho POST form, or Living Will	▪ Unresponsive ▪ Apneic ▪ Pulseless	▪ Medical vs. Trauma ▪ V. fib vs Pulseless V. tach ▪ Asystole ▪ Pulseless electrical activity (PEA) ▪ Hs and Ts (see Pearls below)

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). ▪ Evaluate for criteria of DOA (1055) or DNR Directive (1054): If none, start CPR (9031). ▪ If ALS not available, proceed with Automated Defibrillator Procedure (9035). ▪ Airway Management (4000). ▪ Ventilate no more than 12 breaths per minute (1 breath every 5 seconds) using BVM.	R
▪ Transport to receiving facility. ▪ Pulse Oximetry (9001) to maintain Oxygen saturation. ▪ Assist ALS with Cardiac Monitor and 12-lead EKG if indicated.	E
▪ Establish IV with NS, draw labs.[2] ▪ BIAD Airway (i-Gel preferred-9007) if BVM is unsuccessful to ventilate patient.[2]	A
▪ **ALS should be dispatched for all Cardiac Arrest when the response time is <8 minutes.** ALS may be called off, if not yet on scene, if criteria are met for Field Termination of Resuscitation (3007). ▪ If BLS or ALS procedures not successful to ventilate patient, proceed with intubation (9011-9013). ▪ Monitor ET CO2 with Capnography (9002).[2,3] ▪ Assess rhythm and go to appropriate guideline: VF or Pulseless VT (3010), PEA (3011), Asystole (3012). Consider Hs and Ts (see below). ▪ For return of spontaneous circulation, go to Post Resuscitation Guidelines (3030), and perform 12 lead EKG (9030); transmit when possible to Medical control.	P
▪ ** Call Medical Control for suspected STEMI to determine receiving facility, or for further direction and assistance.**	M

[2]EMT and [3]AEMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Reassess airway frequently and with every patient move. Adequate compressions and timely defibrillation are the keys to success. Priority is for uninterrupted CPR. If BVM or BIAD are successful to ventilate patient, intubation should be deferred until restoration of spontaneous circulation.

Hs and Ts: Hypovolemia, Hypoxia, Acidosis, Hyperkalemia, Hypothermia, Hypoglycemia/Hyperglycemia, Tablets or Toxins, Cardiac Tamponade, Tension Pneumothorax, Thrombosis (MI), Thromboembolism (PE), or Trauma. Maternal arrest: Treat the mother per appropriate protocol with immediate notification to Medical Control and rapid transport to the receiving facility.

QA 100% review of Cardiac Arrest patients. EKGs and rhythm strips will be attached to PCR.

Ronald Jackson MD

BCEMS Medical Director

CARDIAC ARREST, TRAUMATIC

Prehospital Management of Traumatic Cardiac Arrest

History	Signs and Symptoms	Assessment
▪ Events leading to arrest ▪ Estimated downtime ▪ Mechanism of injury ▪ Past medical history ▪ Existence of terminal illness Signs of lividity, rigor mortis ▪ DNR, Idaho POST form, or Living Will	▪ Unresponsive ▪ Apneic ▪ Pulseless ▪ Associated chest trauma	▪ Hypoxemia ▪ Cardiac tamponade ▪ Tension Pneumothorax ▪ Severe acidosis ▪ Hypovolemia

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). Cardiac Arrest (3000) Guidelines. ▪ Evaluate possible Mechanism of Injury. ▪ Evaluate for criteria of DOA (1055) or DNR (1054). If none, commence CPR (9031). ▪ Airway Management (4000). ▪ If extrication required, perform quickly with spinal precautions. ▪ Consider Hemostatic Agent (9081) and or Trauma Tourniquets (9083).	R
▪ Continue CPR at least until ALS arrival. ▪ Assist ALS with Cardiac Monitor and 12-lead EKG if indicated. ▪ Consider Spinal Immobilization (9062)[1], and Pelvic Sling (9061)[2,3,4] ▪ Transport to receiving facility with ALS intercept.	E
▪ Establish IV with NS; draw labs. **Do not delay transport for IV access.**[2] ▪ Consider boluses of NS, 10-20 cc/kg IV.[2] ▪ Consider BIAD Airway (i-Gel preferred-9007) if BVM is unsuccessful to ventilate patient.[2] ▪ Consider Pelvic Sling (9061).[2]	A
▪ **ALS required for all Traumatic Cardiac Arrest.** ▪ Perform endotracheal intubation with in-line stabilization of cervical spine and ventilate. ▪ Assess causes of Traumatic Cardiac Arrest. Consider Chest Decompression (9060) or Pericardiocentesis (9037) as indicated (Hs and Ts). ▪ Assess rhythm and go to appropriate guideline: VF/VT (3010), PEA (3011), Asystole (3012). ▪ For return of spontaneous circulation, go to Post Resuscitation Guidelines (3030), and perform 12-lead EKG (9030); transmit when possible to Medical control.	P
▪ ** Call Medical Control for Traumatic Cardiac Arrest and to discuss Termination of CPR.**	M

[1]EMR, [2]EMT, [3]AEMT and [4]Paramedic providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Reassess airway frequently and with every patient move.
Rapid determination of mechanism of traumatic arrest and its management is key to survival.
Air Medical Transport of Traumatic Cardiac Arrest patients is generally not indicated unless there is return of spontaneous circulation.
QA 100% review of Traumatic Cardiac Arrest patients.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

FIELD TERMINATION OF RESUSCITATION

Patient With Cardiac Arrest Failing Resuscitation Efforts

History	Signs and Symptoms	Assessment
▪ Events leading to arrest ▪ Estimated downtime ▪ Existence of terminal illness Signs of lividity, rigor mortis ▪ DNR, Idaho POST form, or Living Will	▪ Unresponsive ▪ Age ▪ Pulseless, Apneic ▪ Presence of VT/VF, PEA ▪ Presence of neurologic activity	▪ Medical vs. Trauma ▪ Hypothermia ▪ Drug ingestion ▪ Cold water immersion

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ **Reevalaute DOA (1055) or DNR (1054) criteria. Cease CPR if patient meets criteria.** ▪ **If arrest was not witnessed by EMS or bystanders, no shockable rhythm per AED, and no prior bystander CPR, early termination of resuscitation (TOR) may be appropriate.** ▪ Cardiopulmonary Resuscitation may be terminated if **ALL** the following are present: Patient's age is 16 or older. Cardiopulmonary arrest is not associated, or suspected to be associated with hypothermia No restoration of spontaneous circulation (ROSC) as evidenced by three "no shock advised" messages from the AED or absence of pulses for at least 3 rounds of CPR with 3 AED analyses (20 min). Medical Control authorized termination of resuscitation. ▪ Once Termination of Resuscitation occurs, document the time of termination, above details and on-line Medical Control physician's name. ▪ Avoid transport in patients with no chance of recovery. ▪ If Termination of Resuscitation occurs during transport, continue transport to the facility. ▪ If Termination of Resuscitation occurs prior to moving the patient to the ambulance, Law Enforcement shall be contacted to address the unattended death and for scene evaluation and disposition of the body.	E
▪ ALS should be dispatched: only if response time is anticipated to be <8 minutes for return of spontaneous circulation (ROSC) ▪ ALS termination of resuscitation is indicated for: BLS indicators for termination of resuscitation listed above No ROSC after at least 20 minutes of aggressive ACLS care Persistent ETCO2 < 10 mmHg	P
▪ ** Call Medical Control to discuss Termination of Resuscitation. Patients who do not meet criteria for Termination of Resuscitation should be transported to the closest facility with ongoing resuscitation unless directed otherwise by Medical Control.**	M

Pediatric patients (<age16) should be transported to the closest hospital unless DNR or DOA or as directed my Medical Control.
Early TOR is not indicated in the setting of hypothermia (6040).
While victims of apparent blunt trauma who are apneic and pulseless may be candidates for early TOR, exceptions include those: found to be in VF, simple airway blockage, pregnancy with a potentially survivable fetus with anticipated short ETA, patients who become pulseless within 3 minutes of a receiving facility, presence of a narrow QRS rhythm with a rate >80 bpm, possible accidental hypothermia or drug overdose, and carbon monoxide or cyanide toxicity.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

VENTRICULAR FIBRILLATION/PULSELESS VT

Patient With Cardiac Arrest and VF or VT On Presentation.

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Estimated down time ▪ Past medical history, renal failure ▪ Medications/ Allergies ▪ Events leading to arrest ▪ DNR or living will	▪ Unresponsive, apneic, pulseless ▪ Ventricular fibrillation or ventricular tachycardia on ECG	▪ Asystole ▪ Artifact / Device failure ▪ Cardiac/ Pulmonary ▪ Endocrine /Metabolic ▪ Drugs

TREATMENT GUIDELINES

R-EMR	E – EMT BASIC	A-EMTA	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Cardiac Arrest (3000) Guidelines. Begin CPR (9031) if no contraindications. ▪ If ALS not available, proceed with Automated Defibrillator Procedure (AED-9035). ▪ Deliver 1 shock if shock advised; Resume CPR without checking pulse. ▪ 5 cycles of CPR; Check rhythm and pulse. Assess AED; Deliver 1 shock if shock advised. ▪ Airway Management (4000). Ventilate no more than 12 breaths per minute using BVM.	R
▪ Assist ALS with cardiac monitor. ▪ Transport to receiving facility. If possible, do not delay transport for procedures.	E
▪ Establish IV with NS. **Do not delay transport for IV access.**[2] ▪ Consider BIAD (I-Gel Airway-9007) for failure to ventilate with BVM.[2]	A
▪ **ALS required for all Cardiac Arrest.** ▪ Assess adequacy of ventilation, and rhythm on cardiac monitor for continued VF/ VT. ▪ Defibrillate (9036) x 1. Monophasic- shock at 200 Joules; subsequent shocks at 300, 360 joules. Biphasic- shock at 200 Joules; subsequent shocks at 200 Joules. ▪ If unable to ventilate with BVM or BIAD, consider intubation (9011). ▪ Epinephrine 1 mg IV/IO; repeat every 3-5 minutes. ▪ After 5 cycles of CPR, check rhythm and pulse; Repeat Defibrillation. ▪ Consider Lidocaine 1.5 mg/kg IV or Amiodarone 300 mg IV. May repeat Lidocaine twice at 0.75 mg/kg IV (max total 3 mg/kg) and Amiodarone 150 mg IV. ▪ Continue 5 cycles of CPR; if still without pulse, evaluate criteria for discontinuation. ▪ For return of spontaneous circulation (ROSC), go to Post Resuscitation Protocol (3030).	P
▪ ** Call Medical Control for refractory VT/VF when criteria for discontinuation is not met or to discuss possible Field Termination of Resuscitation.**	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

If no IV is available, drugs can be given down ET tube at double the dose and flushed with 5 ml saline.
Calcium and sodium bicarbonate may be helpful if hyperkalemia is suspected (renal failure, dialysis).
Priorities are: uninterrupted chest compressions, defibrillation, and then IV access and airway control.
Polymorphic V-Tach (Torsades de Pointes) may benefit from magnesium sulfate.
If BVM or BIAD is ventilating the patient successfully, intubation should be deferred until the rhythm is changed (ROSC) or 5 defibrillation sequences have been completed.
If arrest is not witnessed by EMS, do 5 cycles of CPR before first defibrillation.
QA 100% review of V-Fib/ Pulseless VT patients

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

PULSELESS ELECTRICAL ACTIVITY (PEA)

Pulseless Patient In Cardiac Arrest With Monitored Organized Rhythm

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Past medical history ▪ Medications ▪ Events leading to arrest ▪ End stage renal disease ▪ Estimated downtime ▪ Suspected hypothermia ▪ Suspected overdose - Tricyclics - Digitalis - Beta blockers - Calcium channel blockers ▪ DNR, Idaho POST, or Living Will	▪ Pulseless ▪ Apneic ▪ Electrical activity on ECG ▪ No heart tones on auscultation	▪ Hypovolemia (Trauma, AAA) ▪ Cardiac tamponade ▪ Hypoxia ▪ Hypothermia ▪ Drug overdose (Tricyclics, Digitalis, Beta blockers, Calcium channel blockers) ▪ Massive myocardial infarction ▪ Tension pneumothorax ▪ Pulmonary embolus ▪ Acidosis ▪ Hyperkalemia

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Cardiac Arrest (3000) Guidelines. Commence CPR (9031) if no contraindications. ▪ Airway Management (4000) and Oxygen Administration (9000); AED Procedure (9035).	R
▪ Assist ALS with Cardiac Monitor and 12-lead EKG (9030) if indicated. ▪ Transport to receiving facility with ALS intercept. Do not delay transport for procedures.	E
▪ Establish IV with NS and draw labs. **Do not delay transport for IV access.**[2] ▪ Consider BIAD I-Gel Airway (9007) for failure to ventilate with BVM.[2]	A
▪ **ALS required for all patients with Cardiac Arrest.** ▪ 5 cycles of CPR. Check rhythm and pulse. Consider endotracheal intubation (9011). ▪ PEA is present if no pulse with electrical activity on ECG and not VT/VF. ▪ Administer Epinephrine 1 mg IV/IO; repeat every 3-5 minutes. ▪ Consider IV bolus of 10-20 cc/kg NS. ▪ Consider Naloxone, 1-2 mg IV for possible narcotic OD. ▪ Consider Glucagon I unit IM/IV for suspected beta blocker OD. ▪ Consider Calcium and Bicarbonate for Suspected Hyperkalemia (5004) (renal/dialysis pts). ▪ Consider IV Dopamine, 2-20 mcg/kg/min for severe Hypotension (5003). ▪ Consider Epinephrine drip, 2-10 mcg/min for persistent Hypotension. ▪ Consider possible Tension Pneumothorax requiring Chest Decompression (9060). ▪ Consider possible Pericardial Tamponade requiring Pericardiocentesis (3037).[4] ▪ For return of spontaneous circulation, go to Post Resuscitation Protocol (3030).	P
▪ ** Call Medical Control for refractory PEA when criteria for discontinuation is not met.**	M

[2]EMT and [4]CCT Paramedic providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Survival is based on identifying and correcting the cause of PEA.
QA 100% review of patients with PEA.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

ASYSTOLE

Pulseless Patient In Cardiac Arrest With No Rhythm on Monitor

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Past medical history ▪ Medications ▪ Events leading to arrest ▪ End stage renal disease ▪ Estimated downtime ▪ Suspected hypothermia ▪ Suspected overdose (Tricyclics, Digitalis, Beta Blockers, Calcium Channel Blockers) ▪ DNR, Idaho POST, or Living Will	▪ Pulseless ▪ Apneic ▪ No electrical activity on ECG ▪ No heart tones on auscultation	▪ Medical or Trauma ▪ Hypoxia/ Respiratory Failure ▪ Hypothermia, Hypovolemia ▪ Drug overdose (Tricyclics, Digitalis, Beta blockers, Calcium channel blockers) ▪ Acidosis ▪ Hyperkalemia/Hypokalemia ▪ Tension Pneumothorax ▪ Death ▪ Error of monitoring device/leads

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

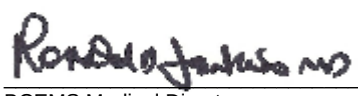
Higher level of providers are responsible for lower level treatments

▪ Cardiac Arrest (3000) Guidelines. Commence CPR (9031) if no contraindications. ▪ Airway Management (4000) and Oxygen Administration (9000); AED Procedure (9035).	R
▪ Assist ALS with Cardiac Monitor and 12-lead EKG if indicated. ▪ Transport to receiving facility with ALS intercept. Do not delay transport for procedures.	E
▪ Establish IV with NS and draw labs. **Do not delay transport for IV access.**[2] ▪ Consider BIAD I-Gel Airway (9007) placement for failure to ventilate.[2]	A
▪ **ALS required for all patients with cardiac arrest/asystole.** ▪ 5 cycles of CPR. Check rhythm and pulse and continue CPR if Asystole persists. ▪ Asystole is present if no pulse and no electrical activity on ECG in more than one lead, and monitor is attached. ▪ If unable to ventilate with BVM or BIAD, consider intubation (9011). ▪ Administer epinephrine 1 mg IV/IO; repeat every 3-5 minutes. ▪ Consider Cardiac External Pacing (9033) early in resuscitation. ▪ Continue CPR if patient remains Pulseless. Continue Epinephrine IV/IO every 3-5 minutes. ▪ Consider and treat correctable causes of Asystole. ▪ Consider Calcium and Bicarbonate for suspected Hyperkalemia (5004) (renal/dialysis pts). ▪ Consider IV Dopamine, 2-20 mcg/kg/min for severe Hypotension (5003). ▪ Consider IV Epinephrine drip, 2-10 mcg/min for severe Hypotension or Bradycardia refractory to Cardiac External Pacing attempts. ▪ Consider possible Tension Pneumothorax requiring chest decompression (9060). ▪ For return of spontaneous circulation, go to Post Resuscitation Protocol (3030).	P
▪ ** Call Medical Control for refractory Asystole if criteria for discontinuation is not met.**	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Survival is based on identifying and correcting cause of Asystole. Always confirm Asystole in more than one lead, and that monitor is connected properly.QA 100% review of patients with Asystole.



BCEMS Medical Director
Effective: 07/01/19

POST RESUSCITATION CARE

Patient Presenting In Cardiac Arrest With Return Of Spontaneous Circulation

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Cardiac arrest ▪ Respiratory arrest	▪ Return of spontaneous circulation ▪ Perfusing rhythm with pulse	▪ Continue to address specific differential diagnoses associated with original dysrhythmia

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Repeat patient assessment and monitor vital signs. ▪ Continue ventilatory support on 100% Oxygen; do not hyperventilate. ▪ Monitor O2 saturation with pulse oximetry (9001). ▪ Continue ALS assist with Cardiac Monitor and 12-lead EKG. ▪ Transport to receiving facility with ALS intercept if not already on-scene.	E
▪ Establish IV with NS if not already done, and place second IV, draw labs.[2] ▪ **Do not delay transport for IV access.** ▪ Consider BIAD (I-Gel preferred-9007) Airway Placement for failure to ventilate with BVM.[2]	A
▪ **ALS required for all patients with Cardiac Arrest.** ▪ If unable to ventilate with BVM or BIAD, consider intubation procedures (9011-9013). ▪ Monitor ET CO2 with Capnography (9002).[2,3] ▪ 12-lead EKG (9030); transmit to Medical Control when possible. ▪ Continue anti-arrhythmic medication if return of spontaneous circulation (ROSC) was associated with its use. If patient was successfully defibrillated without an anti-arrhythmic medication, consider administration of Lidocaine 1.5 mg/kg IV or Amiodarone 300 mg IV. May repeat Lidocaine twice at 0.75 mg/kg IV (max total 3 mg/kg) and Amiodarone once at 150 mg IV. ▪ For Hypotension (5003) consider normal saline bolus, 10-20 cc/kg and repeat x 1 if necessary. ▪ For ongoing Hypotension despite saline bolus, consider Dopamine 2-20 mcg/kg/min IV. ▪ Consider Epinephrine drip, 2-10 mcg/min for severe Hypotension or Bradycardia refractory to External Pacing attempts. ▪ If Cardiac Arrest reoccurs, revert to appropriate guidelines. ▪ Consider Therapeutic Hypothermia (3031) Guidelines if ETA >15 minutes.	P
▪ ** Call Medical Control for suspected STEMI to determine receiving facility, or for further direction and assistance and to discuss Post Resuscitation Management**	M

[2]EMT and [3]AEMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Hyperventilation is a significant cause of Hypotension and recurrence of Cardiac Arrest post resuscitation.
Most patients require ventilatory assistance post resuscitation.
Common causes of post-resuscitation hypotension include hyperventilation, hypovolemia, pneumothorax and medication reaction to ALS drugs.
Titrate Dopamine, if required to maintain MAP >90.
QA 100% review of patients successfully resuscitated from Cardiac Arrest.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

THERAPEUTIC HYPOTHERMIA

Patient Presenting In Cardiac Arrest With Return Of Spontaneous Circulation And GCS ≤ 4.

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Cardiac arrest ▪ Respiratory arrest	▪ Return of spontaneous circulation ▪ Perfusing rhythm with pulse	▪ Continue to address specific cause for Cardiac Arrest

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ **ALS required for all patients who meet criteria for Therapeutic Hypothermia.**

Inclusion Criteria:

1) Return of spontaneous circulation (regains pulse) after cardiac arrest, non-traumatic.
2) Patient is not awake, patient's GCS ≤ 4, and documented in PCR.
3) Patient is not obviously pregnant.
4) Patient is at least 18 years of age.
5) Initial temperature (rectal is most accurate) is more than 34 degrees C (measure before cooling and on arrival to hospital if available).
6) No known bleeding problems, severe infection or recent major surgery.
7) No known DNR order exists.
8) Intubated, ETCO2 > 20.
9) Blood pressure equal to or greater than 90 systolic (may use pressors to maintain blood pressure).

Methods:

1) Check initial temp.
2) Check 12 lead ECG: if STEMI present, follow STEMI (5010) Guidelines and transport accordingly.
3) Expose patient and apply ice packs to axilla and groin.
4) Start at least one large bore I.V.
5) Give cold (4C) saline bolus of 2 liters rapidly/wide open. Consider lasix 20mg IVP if CHF present.
6) Give Midazolam 2mg IV, repeat as needed (important for shivering control and sedation).
7) Consider Rocuronium 0.5-1.0 mg/kg IV and continue q 20 minutes to control shivering.
8) Consider Fentanyl 25-50 IV mcg bolus every 5 minutes up to 200 mcg (also for sedation and shivering).
9) If needed, use Dopamine to keep systolic blood pressure equal to or greater than 90 mm Hg.
10) Contact receiving hospital so they are ready to accept transfer of care and continue patient cooling.
11) If there is loss of BP or pulse, discontinue protocol and revert to appropriate algorithm.
12) Do not hyperventilate; goal is an ETCO2 of around 40.
13) Remember that patient was critical; now they are even more critical. Monitor this patient closely for arrhythmia and hemodynamic instability. If loss of spontaneous circulation, revert to appropriate Cardiac Arrest Guidelines.

P

▪ ** Call Medical Control for all patients receiving Therapeutic Hypothermia.**

M

Pearls:

If unable to intubate, do not initiate Therapeutic Hypothermia.
When exposing patients for cooling, undergarments may remain in place.
Do not delay transfer for purposes of initiating Hypothermia.
QA 100% review of patients receiving Therapeutic Hypothermia.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

Section 4000

Airway and Respiratory

AIRWAY MANAGEMENT

Patients Over 12 Years With Respiratory Failure or Impending Respiratory Failure

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Age ▪ Medications ▪ Prior to arrival treatment ▪ Past medical history	▪ Respiratory Rate ▪ Respiratory Effort ▪ Adequacy of ventilation ▪ Oxygen saturation	▪ Trauma vs. Medical ▪ Bronchospasm ▪ Pneumothorax ▪ CHF ▪ Drug related

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Place patient in position for accessing airway by EMS personnel. ▪ Assess respiratory rate, effort and adequacy of ventilation. ▪ Basic maneuvers: open airway, place nasal or oral airway. ▪ Bag-valve mask (BVM) with 100% Oxygen (9000). ▪ Obtain vitals every 5-10 minutes.	R
▪ Pulse Oximetry (9001) to maintain Oxygen saturation above 90%. ▪ Continue BMV if ventilation is successful. ▪ Transport to receiving facility. **Do not delay transport for procedures when possible.**	E
▪ If BVM is unsuccessful or long transport necessary, consider BIAD (i-Gel preferred-9007) Airway Placement.[2] Remember to use Preoxygenation technique (9006). ▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2]	A
▪ **ALS required for all Respiratory Failure.** ▪ Oral Tracheal (9011) or Nasal Tracheal (9012) Intubation or Sedation Assisted Intubation (RSI-9013) if BVM or BIAD unsuccessful. ▪ Continue to oxygenate with BVM between attempts to intubate, and always Preoxygenate when possible (9006). ▪ After one failed attempts, go to Failed Airway Procedure (4001). ▪ Post intubation, consider Midazolam, 0.05-0.1mg/kg IV (5.0 mg/dose maximum) for sedation. ▪ Monitor ET CO2 with Capnography (9002).[2,3] ▪ Consider Gastric Tube Insertion (9042).	P
▪ ** Call Medical Control for Failed Airway patients and notify destination facility of all intubated patients.**	M

[2]EMT and [3]AEMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Capnometry or capnography is mandatory with all methods of intubation. Document results.
A secure airway is defined when the patient is receiving adequate oxygenation and ventilation.
An Intubation attempt is defined as passing a blade or tube past the teeth or inserted in the nasal passage.
Ventilatory rate should be 6-10 per minute to maintain a EtCO2 of 35-45. Avoid hyperventilation.
Maintain C-spine immobilization for patients with suspected spinal injury.
Do not assume hyperventilation is psychogenic; use Oxygen, not a paper bag.
Gastric tube placement should be considered in all intubated patients.
Always secure the endotracheal tube well and consider a c-collar to better maintain endotracheal tube placement.
QA 100% review of Respiratory failure patients requiring intubation.

Ronald Jackson MD

BCEMS Medical Director

FAILED AIRWAY

Patients Over 12 Years With Respiratory Failure and Failed Intubation Attempts

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Age over 12 ▪ Failed intubation attempts	▪ Respiratory failure ▪ Inadequate ventilation ▪ Inadequate oxygenation	▪ Difficult anatomy ▪ Facial trauma ▪ Laryngospasm

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

▪ **ALS required for all Respiratory Failure.** ▪ No more than two intubation attempts by most experienced provider. ▪ Continue to oxygenate using high flow Oxygen (9006) with BVM between intubation attempts. ▪ For difficult intubations, consider a different laryngoscopic blade, using a Gum Elastic Bougie, a change in cricoid pressure, change head positioning, or apply BURP maneuver (Push trachea **B**ack-posterior, **U**p, and **R**ightward **P**ressure. ▪ If Oxygen saturation is above 90%, continue BVM and transport to closest facility. ▪ If O2 saturation is <90% with BVM ventilation, assess facial trauma or swelling. ▪ If no facial trauma, place BIAD (9007) and continue ventilation with BIAD if successful. ▪ For failure of BIAD or facial trauma, consider Surgical Cricothyrotomy (9008). ▪ Ventilate at <12 BPM to maintain ET CO2 (9002) between 35 and 45 and SPO2 >90%.	P
▪ ** Call Medical Control for Failed Airway patients and notify destination facility of all intubated patients.**	M

Pearls:

Continuous Pulse Oximetry should be used in all patients with inadequate respiratory function.
Continuous ETCO2 should be used in all patients with Respiratory Failure or with an advanced airway.
A secure airway is defined when the patient is receiving adequate oxygenation and ventilation.
Patients without secure airways, breathing or intact circulation should be transported to the nearest emergency facility.
An Intubation attempt is defined as passing a blade or tube past the teeth or inserted in the nasal passage.
Ventilatory rate should be 6-10 per minute to maintain an EtCO2 of 35-45. Avoid hyperventilation.

QA 100% review of Respiratory Failure patients requiring intubation.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

RESPIRATORY DISTRESS

Patients With Severe Shortness of Breath

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Asthma; COPD, chronic bronchitis, emphysema, congestive heart failure ▪ Home treatments (oxygen nebulizer) ▪ Medications (inhalers, steroids, theophylline) ▪ Toxic exposure, smoke inhalation	▪ Shortness of breath ▪ Pursed lip breathing ▪ Decreased ability to speak ▪ Increased respiratory rate and effort ▪ Wheezing, rhonchi, rales ▪ Use of accessory muscles ▪ Fever, cough ▪ Tachycardia	▪ Asthma ▪ Anaphylaxis ▪ Aspiration ▪ COPD (Emphysema, Bronchitis) ▪ Pleural effusion ▪ Pneumothorax ▪ Cardiac (MI, CHF, tamponade) ▪ Hyperventilation ▪ Inhaled toxins (smoke CO, etc)

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initiate Patient Contact (2000). ▪ Place patient in position of comfort. ▪ Evaluate respiratory/ventilatory sufficiency. ▪ Airway Management (4000), and Oxygen Administration (9000). ▪ Evaluate for pulmonary rales and signs of Congestive Heart Failure (CHF-5001). ▪ Evaluate for presence of wheezing or stridor.	R
▪ Assist with inhaler if patient has own inhaler. ▪ Pulse Oximetry (9001) to keep Oxygen Saturation over 90%. ▪ Assist ALS with Cardiac Monitor and 12-lead EKG for patients over 35 years-old. ▪ Transport to receiving facility. **Do not delay transport for procedures when possible.**	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Administer Albuterol 2.5 mg SVN x1. May repeat Albuterol once as needed.	A
▪ **ALS required for all respiratory distress.** ▪ Consider Atrovent 1 unit (500 mcg) SVN x 1. Consider L-Epinephrine 0.1%, 5.0 ml SVN for ▪ children <18 years of age with bronchospasm or croup. ▪ Consider Methylprednisolone (Solumedrol) 125 mg IV/IM, or Dexamethasone (Decadron) 4-10 mg IM/IV for severe bronchospasm/stridor. Decadron may also be given PO for croup. ▪ Consider Magnesium Sulfate 1-2 grams in 50 cc, IV bolus over 5-10 minutes. ▪ Consider administration of Epinephrine in patients <35 years-old, 0.3 mg SQ/IM.[2] ▪ 12 lead EKG for patients over 35 years-old or with a history of cardiac disease. ▪ Monitor ETCO2 (9002) for significant Respiratory Distress which does not respond to Beta-Agonist treatment.[2,3]	P
▪ ** Call Medical Control for Respiratory Distress failing to respond to above treatment.	M

[2]EMT and [3]AEMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

EMT administration of Beta agonists (Albuterol) is restricted to patients who are under doctor's orders with a prescription for the drug. Continuous Pulse Oximetry should be used if initial saturation is < 92%, or there is a decline in status. Do not use Epinephrine unless Medical Control dictates otherwise in patients over 50, those with known cardiac disease or with a heart rate over 150. Use with caution in patients between 35 and 50. A silent chest often leads to Respiratory Arrest.

QA 100% review of Respiratory Failure patients requiring intubation.

Ronald Jackson MD

BCEMS Medical Director

ALLERGIC REACTION

Patients With New Symptoms Suspicious For Allergic Reaction

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Onset and location ▪ Inset sting or bite ▪ Food allergy & exposure ▪ Medication allergy & exposure ▪ New clothing, soap, detergent ▪ Past history of reactions ▪ Past medical history ▪ Medication history	▪ Itching or hives ▪ Coughing, wheezing, or respiratory distress ▪ Chest or throat constriction ▪ Difficulty swallowing ▪ Hypotension or shock ▪ Edema	▪ Urticaria (rash only) ▪ Anaphylaxis (systemic effect) ▪ Shock (vascular effect) ▪ Angioedema (drug induced) ▪ Aspiration, Airway obstruction ▪ Vasovagal event ▪ Asthma or COPD ▪ CHF

TREATMENT GUIDELINES

R-EMR	E – EMT BASIC	A-EMTA	P-PARAMEDIC	**M-Medical Control **

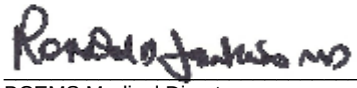
*****Higher level of providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). ▪ Place patient in position of comfort. ▪ Evaluate for evidence of Respiratory Distress and/or Hypotension; if present go to Anaphylaxis (4011). ▪ Remove allergen if still present and identifiable. ▪ Oxygen Administration (9000) and Airway Management (4000) as indicated. ▪ Consider Epi-Pen Administration (9021) if indicated.	R
▪ Pulse Oximetry (9001) of Oxygen required; keep Oxygen Saturation over 90%. ▪ Assist ALS with cardiac monitor if patient is over 35 years old and reaction is severe. ▪ Transport to receiving facility as indicated.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Consider Albuterol 2.5 cc SVN.	A
▪ **ALS required for all Allergic Reactions with ALOC or Respiratory Distress.** ▪ Reassess airway, ventilation and oxygenation. ▪ Administer Diphenhydramine (Benadryl) 0.5 mg/kg IV/IM, or PO for mild allergic reactions. ▪ Consider Methylprednisolone (Solumedrol) 125 mg IV/IM, or Dexamethasone (Decadron) 4-10 mg IM/IV for severe reaction. Consider PO Decadron for more stable children. ▪ Consider Epinephrine 0.3 mg SQ/IM for severe reaction in patients <35 years-old.[2,3] May repeat x1 in 10 minutes.[2,3] Consider nebulized epinephrine for children, 5.0 ml, .1%. ▪ Consider 12-lead EKG for patients with respiratory distress over 35 years-old or with a history of cardiac disease.	P
▪ ** Call Medical Control for severe Allergic Reaction failing to respond to treatment. Consider Glucagon 1-2 mg IM/IV/IO for patients on beta blockers who are refractory to Epinephrine**	M

[2]EMT and [3]AEMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Any patient with respiratory symptoms should receive IV or IM Benadryl, not PO.
The shorter the onset of symptoms to contact, the more severe the reaction.
Do not use Epinephrine unless Medical Control dictates otherwise in patients over 50, those with known cardiac disease, or with a heart rate over 150. These patients should receive a 12-lead ECG. Use with caution in patients 35-50 years.
Common allergic reactions are urticaria (hives) and angioedema, followed by respiratory symptoms (airway edema, dyspnea, wheezing) and gastrointestinal symptoms.
QA 100% review of Allergic Reaction patients requiring intubation.



BCEMS Medical Director
Effective: 07/01/19

ANAPHYLAXIS

Patients With Severe Allergic Reaction Associated With Hypotension, Dyspnea or Edema

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Onset and location ▪ Inset sting or bite ▪ Food allergy & exposure ▪ Medication allergy & exposure ▪ New clothing, soap, detergent ▪ Past history of reactions ▪ Past medical history ▪ Medication history	▪ Itching or hives ▪ Coughing, wheezing, or respiratory distress ▪ Chest or throat constriction ▪ Difficulty swallowing ▪ Hypotension or shock ▪ Edema	▪ Urticaria (rash only) ▪ Anaphylaxis (systemic effect) ▪ Shock (vascular effect) ▪ Angioedema (drug induced) ▪ Aspiration, Airway obstruction ▪ Vasovagal event ▪ Asthma or COPD ▪ CHF

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). Place patient in position of comfort. ▪ Evaluate for evidence of Respiratory Distress (4002); Airway Management (4000). ▪ Remove allergen if still present and identifiable. ▪ Administer Oxygen 10-15 L via non rebreather (NRB), or BVM for Respiratory Distress. ▪ Consider Epi-Pen Administration (9021) if indicated.	R
▪ Pulse Oximetry (9001) if Oxygen required; keep Oxygen Saturation over 90%. ▪ Assist ALS with cardiac monitor and consider 12-lead EKG if patient is over 35 years-old and reaction is severe. ▪ Transport to receiving facility as indicated. **Do not delay transport for procedures.**	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Consider Albuterol 2.5 mg SVN. ▪ Airway Management (4000). Consider Advanced Airway (9007) if needed.[2]	A
▪ **ALS required for all Allergic Reactions with ALOC or respiratory distress.** ▪ Administer Epinephrine 0.3 mg SQ/IM. May repeat x 1 in 10 minutes.[2,3] ▪ Administer Diphenhydramine (Benadryl) 0.5 mg/kg IV/IM/PO. ▪ Administer Methylprednisolone (Solumedrol) 125 mg IV/IM, or Dexamethasone (Decadron) 4-10 mg IM/IV. ▪ For refractory patients, consider Glucagon 1 mg (1 unit) IV/IM.[3] ▪ For hypotension, administer 10-20 cc/kg NS IV, repeat as needed.	P
▪ ** Call Medical Control for Anaphylactic Reactions failing to respond to treatment. Consider Epinephrine drip.**	M

[2]EMT and [3]AEMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

The shorter the onset of symptoms to contact, the more severe the reaction.
Contact Medical Control prior to administration of Epinephrine in patients over 50, those with known cardiac disease, or with a heart rate over 150. These patients should receive a 12-lead EKG.
Common allergic reactions are urticaria (hives) and angioedema, followed by respiratory symptoms (airway edema, dyspnea, wheezing) and gastrointestinal symptoms.
Cardiovascular collapse may occur abruptly without prior skin or respiratory symptoms.
Patients with food-induced anaphylaxis should be observed a minimum of 4 hours following recovery from the initial event.
Individuals at greater risk for a fatal reaction include those with asthma, atopic dermatitis (eczema), prior anaphylaxis, and those who delay treatment.
QA 100% review of Anaphylaxis patients requiring intubation.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

Section 5000

Cardiac Emergencies

CHEST PAIN

Prehospital Management of Chest Pain Including Possible STEMI.

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Age ▪ Medications ▪ Viagra, Levitra, Cialis ▪ Past Medical History ○ MI, Angina, Diabetes, Post Menopausal, Cholecystectomy ▪ Allergies ○ ASA, Morphine, Lidocaine ▪ Recent physical exertion ▪ Palliation/provocation ▪ Signs/symptoms time, quality, severity, location and duration ▪ Prior to arrival treatment	▪ Character and severity of chest pain ▪ Bradycardia or tachycardia ▪ Evidence for ventricular ectopy ▪ Breathing and Oxygen saturation ▪ Diaphoresis, nausea or vomiting ▪ Blood pressure and pulse ▪ Evidence for chest trauma ▪ Hemoptysis ▪ Pleural or pericardial rub ▪ Differential blood pressures ▪ New cardiac murmur ▪ GI bleeding ▪ Signs of drug abuse	▪ Trauma vs. Medical ▪ Angina vs. MI ▪ Pericarditis ▪ Pulmonary Embolism ▪ Asthma/COPD ▪ Pneumothorax ▪ Aortic dissection or aneurysm ▪ GI pain ▪ GI reflux or hiatal hernia ▪ Esophageal spasm ▪ Chest wall injury or pain ▪ Overdose (cocaine or meth)

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial patient contact (2000). ▪ Place patient in position of comfort. ▪ Administer Oxygen (9000) as required to maintain Oxygen saturation between 91-95%. ▪ Obtain vitals every 5-10 minutes.	R
▪ If systolic BP is greater than 100 mmHg, assist patient with own nitroglycerin q 5 min x 3. ▪ Pulse Oximetry (9001). ▪ Assist ALS with Cardiac Monitor and 12-lead EKG data acquisition if indicated. ▪ Administer aspirin 324 mg (four 81 mg chewable tabs) po. ▪ Transport to receiving facility with ALS intercept, if ALS not already on-scene.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Administer nitroglycerin spray 0.4 mg SL; repeat q 5 min x 3 as long as SBP >100 mmHg. ▪ Establish 2nd IV line (NS or heparin lock) for persistent pain and or suspect MI.[2]	A
▪ **ALS required for ongoing Chest Pain or presence of any other symptoms.** ▪ 12-lead EKG; transmit when possible to Medical control. ▪ Administer nitroglycerin paste 0.5-2" transdermal (TD).[3] ▪ Administer Fentanyl 25-100 mcg IV/IO q5 min. to a maximum dose of 300 mcg. ▪ For suspected STEMI (5010), complete reperfusion checklist (9045) if thrombolysis is anticipated, and complete STEMI Evaluation Tool (5011).	P
▪ ** Call Medical Control for suspected STEMI to determine receiving facility. ▪ Follow STEMI Guidelines when STEMI is confirmed and CCT transport for direct PCI.**	M

[2]EMT and [3]AEMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Patients without intact airway, breathing and circulation should be transported to the nearest emergency facility. Goal is to relieve chest pain, using caution for possible hypotension with right sided or inferior MI. Recent data suggests less optimal outcome with excessive oxygenation in STEMI patients.
QA EKGs will be attached to PCR.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

CONGESTIVE HEART FAILURE

Prehospital Management of Patients with Signs and Symptoms of Heart Failure

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Difficulty breathing with or without chest pain. ▪ Fever and sputum production. ▪ Cardiac history of congestive heart failure, cardiomyopathy or prior MI ▪ Medication list (lasix, digoxin, Coreg) ▪ Symptoms of DOE, orthopnea or paroxysmal nocturnal dyspnea ▪ Nocturnal wheezing, rattling, coughing	▪ Respiratory distress, pulmonary rales ▪ Apprehension, sitting up to breath better ▪ Jugular venous distension ▪ Pink frothy sputum ▪ Peripheral edema, diaphoresis ▪ Hypotension, shock ▪ Chest pain	▪ Myocardial infarction ▪ Congestive heart failure ▪ Asthma, COPD ▪ Anaphylaxis, toxic exposure ▪ Aspiration, pneumonia ▪ Pleural effusion ▪ Pulmonary embolism ▪ Pericardial tamponade

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). ▪ Place patient in position of comfort to maximize breathing effort (fully upright is often the best). ▪ Administer Oxygen via 10-15 L non rebreather mask (9000). ▪ Airway Management (4000) and Respiratory Distress (4002) guidelines as indicated.	R
▪ Assist ALS with cardiac monitor and 12-lead EKG data acquisition if indicated. ▪ Pulse Oximetry (9001) to maintain Oxygen saturation above 90%. ▪ Transport to appropriate receiving facility with ALS intercept if ALS not already on-scene.	E
▪ Establish IV with NS and draw labs; **do not delay transport for IV access.**[2] ▪ Consider second IV if patient is severely compromised.[2] ▪ Administer Nitroglycerin spray 0.4 mg SL; may repeat q 5 minutes x 3, to maintain systolic BP > 110 mmHg. ▪ For respiratory failure, consider BIAD (King preferred-9007) Airway Placement.[2]	A
▪ **ALS is indicated in patients with ongoing difficulty breathing or Chest Pain.** ▪ Use and ETCO2 (9002) if available.[2,3] ▪ Consider CPAP (9003) if available.[3] ▪ Oral Tracheal (9011) or Nasal Tracheal (9012) Intubation or Sedation Assisted Intubation (RSI-9013) if BVM or BIAD unsuccessful. ▪ 12-lead EKG; transmit to Medical Control if possible; if EKG evidence for STEMI, follow STEMI (5010) guidelines. ▪ Administer Nitroglycerin paste 2" transdermal (TD) if SBP >110 mmHg.[3] ▪ Administer Furosemide 0.5-1.0 mg/kg IV/IM (generally 20-40 mg). ▪ Consider Fentanyl 25-50 IV mcg bolus every 5 minutes up to 200 mcg.	P
▪ ** Call Medical Control for evidence of STEMI, refractory Pulmonary Edema or Cardiogenic Shock.**	M

[2]EMT and [3]AEMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Avoid nitroglycerin in any patient who has used Viagra or Levitra in the past 24 hours or Cialis in the past 36 hours. Carefully monitor the level of consciousness, BP and respiratory status with the above interventions.

QA 100% review of patients with Congestive Heart Failure requiring field endotracheal intubation.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

HYPERTENSION, HYPERTENSIVE CRISIS

Presentation with Severe Hypertension, or Hypertensive Crisis with End Organ Hypoperfusion

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Documented hypertension ▪ Related diseases: diabetes, CVA, renal failure, cardiac ▪ Medications (compliance?) ▪ Erectile dysfunction medication ▪ Pregnancy	One of these (for hypertensive crisis) ▪ Systolic BP 220 or greater ▪ Diastolic BP 120 or greater AND at least one of these signs of hypoperfusion (end organ injury) ▪ Headache ▪ Nosebleed ▪ Blurred vision ▪ Dizziness ▪ Chest pain ▪ Nausea or vomiting	▪ Hypertensive encephalopathy ▪ Primary CNS injury (Cushing's response = bradycardia with hypertension) ▪ Myocardial infarction ▪ Aortic dissection (aneurysm) ▪ Preeclampsia / Eclampsia

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). ▪ Place patient in position of comfort. ▪ Administer Oxygen 10-15 L via non rebreather (NRB). ▪ Obtain blood pressure in both arms.	R
▪ Assist ALS with Cardiac monitor and 12-lead EKG (9030) if indicated. ▪ Pulse Oximetry (9001) to maintain Oxygen saturation above 90%. ▪ For Respiratory Distress, consider Congestive Heart Failure (CHF-5001) Guidelines. ▪ Transport to receiving facility with ALS intercept, if ALS not already on-scene.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ For signs of end organ injury/ hypoperfusion, administer nitroglycerin spray 0.4 mg SL. May repeat q 5 min x 3 as long as SBP >180 mmHg.	A
▪ **ALS required for any patient meeting criteria for Hypertensive Crisis.** ▪ 12 lead EKG; if abnormal, transmit when possible to Medical Control. ▪ Administer Nitroglycerin paste 0.5-2" transdermal (TD) for persistent severe hypertension.[3] ▪ Consider administration of Midazolam, 0.05 - 0.1 mg/kg IV (2.5 mg/dose maximum) for Anxiety associated with Hypertension.	P
▪ ** Call Medical Control for Hypertensive Crisis, Persistent Chest Pain, ALOC, Suspected Stroke Symptoms, or persistent BP >220/120. Consider Diltiazem (Cardizem) Bolus 10-20 mg IV for Hypertensive Crisis and heart rate >100.**	M

[2]EMT and [3]AEMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Avoid nitroglycerin in any patient who has used Viagra or Levitra in the past 24 hours, or Cialis in the past 36 hours due to potential hypotension.
Hypertensive Crisis is defined as systolic pressure over 220 or diastolic pressure over 120 with signs of end organ damage/hypoperfusion (heart, lungs, kidneys, brain). Generally, pre-hospital treatment of Hypertension is not encouraged unless end organ involvement is apparent.
Never treat elevated blood pressure based on one set of vitals.
All symptomatic patients with hypertension should be transported with their heads elevated.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

HYPOTENSION

Prehospital Management of Symptomatic Hypotension

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Blood loss- vaginal or gastrointestinal bleeding, AAA, ectopic pregnancy ▪ Fluid loss – vomiting, diarrhea, fever ▪ Infection ▪ Cardiac Ischemia (MI, CHF) ▪ Medications ▪ Allergic reaction ▪ Pregnancy ▪ History of poor oral intake	▪ Restlessness, confusion ▪ Weakness, dizziness ▪ Weak, rapid pulse ▪ Pale, cool, clammy skin ▪ Delayed capillary refill ▪ Hypotension (Systolic BP < 90 mmHg) ▪ Coffee-ground emesis ▪ Tarry stool	▪ Shock Hypovolemic Cardiogenic Septic Neurogenic Anaphylactic ▪ Ectopic pregnancy ▪ Dysrhythmias ▪ Pulmonary embolus ▪ Tension pneumothorax ▪ Medication effect / overdose ▪ Vasovagal ▪ Physiologic (pregnancy)

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). Carefully measure BP in both arms. ▪ Administer Oxygen 10-15 L via non rebreather (9000). ▪ Consider Trendelenburg positioning for refractory hypotension.	R
▪ For Hypotension related to Trauma, follow Multi-System Trauma (6000) guidelines. ▪ Pulse Oximetry (9001) to maintain Oxygen saturation above 90%. ▪ Assist ALS with Cardiac Monitor and 12-lead EKG if indicated. ▪ Transport to receiving facility as indicated, with ALS intercept if ALS not already on-scene.	E
▪ Establish IV (large bore) with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Evaluate for signs of pulmonary congestion (rales on lung exam). ▪ If no rales present, Administer NS bolus of 10-20 cc/kg and reevaluate.[2] For severe hypotension (systolic BP <70 mmHg), consider larger bolus of up to 20 cc/kg and reassess.[2]	A
▪ **ALS required for ongoing Hypotension, Chest Pain or Respiratory Distress.** ▪ 12-lead EKG; if abnormal, transmit when possible to Medical control. ▪ Repeat IV NS boluses as necessary to a max of 60cc/kg, monitor respiratory status. ▪ For evidence for pulmonary congestion or refractory hypotension, administer Dopamine starting at 5 mcg/kg/minute and increasing as necessary every 3 minutes to a maximum of 20 mcg/Kg/min. Monitor for excessive tachycardia and ventricular ectopy.	P
▪ ** Call Medical Control for suspected STEMI or Refractory Hypotension.**.	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Hypotension is defined as a systolic blood pressure below 90 mmHg in an adult. Look for associated signs and symptoms of hypoperfusion to guide aggressiveness of treatment (young women and heart failure patients commonly live normally with pressures in the 80s without symptoms).
Consider performing orthostatic vital signs on patients in non-trauma situations.
For non-trauma and non-cardiac patients, Dopamine is usually reserved for refractory hypotension after at least 2 liters of NS have been administered IV.
QA 100% review of hypotension patients requiring Dopamine.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

SUSPECTED HYPERKALEMIA

Patients with Predisposition, Signs of Hemodynamic Instability and ECG Changes of Hyperkalemia

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Renal failure/ Dialysis patient ▪ Crush injuries ▪ Medications that may predispose to hyperkalemia (ACE inhibitors, Angiotensin receptor blockers, Potassium supplements, Amiloride, Spironolactone, Triamterene).	▪ ECG evidence for hyperkalemia (bradycardia, Tall T waves, wide QRS, or sine wave pattern) ▪ Hemodynamic instability (bradycardia, hypotension, respiratory distress) ▪ Weakness, dizziness	▪ Hyperkalemia ▪ Hypokalemia ▪ Hypocalcemia ▪ Sepsis ▪ Acidosis

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). ▪ Administer Oxygen 10-15 L via non rebreather (NRB).	R
▪ For traumatic crush injuries, follow appropriate Multi-System Trauma (6000) or Major Extremity Injury (6014) guidelines. ▪ Pulse Oximetry (9001) to maintain Oxygen saturation above 90%. ▪ Assist ALS with Cardiac Monitor and 12-lead EKG if indicated. ▪ Transport to receiving facility, with ALS intercept.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Evaluate for signs of pulmonary congestion (rales on lung exam). ▪ If no rales present, Administer NS bolus of 10-20 cc/kg IV, and reevaluate.[2] ▪ Administer Albuterol 2.5 mg in 3 cc NS SVN.	A
▪ **ALS required for Suspected Hyperkalemia.** ▪ 12-lead EKG (9030); if abnormal, transmit when possible to Medical control. ▪ Further treatment is given only if patient has predisposition (kidney disease, medications, crush injury), EKG changes and hemodynamic instability.	P
▪ ** Call Medical Control for authorization to treat suspected Hyperkalemia further.** ▪ Consider Calcium Chloride (10%) 500-1000 mg (5-10 ml) IV over 5 minutes. ▪ Consider Furosemide 40 mg IV. ▪ Conside Sodium Bicarbonate, 1 meq/kg (often 50 meq) IV over 5 minutes. ▪ Consider D50, 25 gm IV, with 10 Units regular Insulin IV over 15 minutes.	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Use extreme caution when treating Hyperkalemia. Contact Medical Control before treating beyond Albuterol SVN and IV fluids.

QA 100% review of Suspected Hyperkalemia patients receiving IV medication treatment.

Ronald Jackson MD

BCEMS Medical Director

STEMI

Chest Pain Patients Meeting EKG Criteria for ST Elevation MI (STEMI)

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Severity and quality of chest pain ▪ Ability to reach PCI facility in 60 min ▪ Note time of onset of symptoms ▪ Shortness of breath, palpitations	▪ Chest pain with ST elevation >2 mm in 2 contiguous leads ▪ Chest pain with new LBBB, or ventricular paced rhythm ▪ Evaluate blood pressure, heart rate and conduction, severity of ventricular arrhythmia, and oxygen saturation	▪ Evaluate ischemia, heart failure, arrhythmia and possible conduction changes (heart block, new BBB, pauses or asystole) ▪ Maintain adequate oxygenation, pressure and pain relief

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

▪ Complete Chest Pain (5000) guidelines and verify STEMI criteria. Complete STEMI Evaluation Tool (5011) if primary Angioplasty (Percutaneous Coronary Intervention-PCI) is anticipated. Complete Reperfusion Checklist (9038) if thrombolytic therapy is anticipated. ▪ Direct Angioplasty/PCI is generally preferable if Scene to Facility transport is available. ▪ Transmit EKG to Medical Control, contact Medical Control for orders to transport to STEMI facility, and request notification of on-call cardiologist and cath lab staff. ▪ Adjust Oxygen delivery to maintain O2 saturation > 90% and <95%. ▪ Continue Fentanyl in 25-50 mcg doses IV to a maximum of 300 mcg for adequate pain relief. ▪ Repeat EKG and transmit for major changes of symptoms/ pain severity. ▪ If no recent GI bleed, anemia, CVA, severe hypertension (BP>200/110), recent major trauma or surgery, or warfarin (Coumadin) anticoagulants, administer heparin 50 U/kg IV, (max 5000 Units). ▪ Administer Nitroglycerin IV drip starting at 5-10 mcg/min, and up to a maximum dose of ▪ 40 mcg/min. Remove Nitroglycerin Paste if IV Nitroglycerine is administered. ▪ Administer Metoprolol 5 mg IV q 5 minutes x 3; hold for BP <110, HR <70. ▪ Administer Odansetron 4 mg IV for nausea as indicated. ▪ Administer normal saline boluses of 10-20 cc/kg IV for SBP <95 mmHg. Watch for Pulmonary Rales to indicate CHF (5001). ▪ Follow Arrhythmia (5020-5024) guidelines for changes in rhythm.	P
▪ ** Call Medical Control to activate STEMI Alert Plan (1018). Contact receiving cardiologist for further orders; obtain the on-call Cardiologist's name and cell number from OLMC.	M

Pearls:

Patients presenting without intact or secured airway, breathing and spontaneous circulation should be transported to the nearest receiving emergency facility. Avoid nitroglycerin in any patient who has used Viagra or Levitra in the past 24 hours or Cialis in the past 36 hours due to potential Hypotension. Diabetics and Geriatric patients often have atypical symptoms. When giving IV saline, frequently check for pulmonary rales that might indicate fluid overload. Use IV tubing compatible with destination facility. Recent EMS research suggests superior outcome when excessive oxygenation is avoided.

QA STEMI patients transferred for Primary PCI (Percutaneous Coronary Intervention) with E2B (EMS contact to balloon time) > 120 minutes.

Ronald Jackson MD

BCEMS Medical Director

STEMI EVALUATION TOOL

Evaluation tool for patients intended for direct Percutaneous Intervention (PCI)

Patient name:_____ Date_____

DOB/age:_____ Symptom onset time:_____

Time of Scene arrival_____ Time of Scene Departure:_____

Time EKG sent to BGH-ED:_____ To cath lab control (208) 929-2136:_____

Time of arrival at KH/cath lab:_____

Verify STEMI criteria (initial each consideration):

A. Ongoing signs and symptoms of ischemia_____

B. EKG demonstrates at least 2mm of ST elevation in two contiguous leads and/or _____
a left BBB and/or_____ a paced rhythm _____

C. No evidence for stroke_____

Medications:

Paramedic administering Medications:_____

A. ASPIRIN 81 mg, 4 tablets po or chewed **(ED/ EMS)**

Time given:_____ Total dose:_____

B. NITROGLYCERIN spray 0.4 mg, 1 spray SL for chest pain, may repeat x 3 **(ED/EMS)**

Time given:_____ Total dose:_____

C. FENTANYL 25-100 mcg q 5 minutes up to 300 mcg

Times given:_____Total dose:_____ (ED/EMS) or Times given:_____Total dose:_____ **(ED/EMS)**

D. HEPARIN 50 U/kg, (maximal total of 5000 units) **(ED/EMS)**

Time given:_____total dose:_____units

HOLD heparin for any history or evidence of abnormal bleeding, coumadin Rx, major trauma, surgery or stroke in last 6 weeks, SBP >200 or DBP >110

E. TICAGRELOR (Brilinta) 180mg PO (if ordered by receiving cardiologist) **(ED/EMS)**

Time:_____ total dose :_____mg

Hold if patient is on coumadin, Pradaxa, Xarelto, Eliquis or known sensitivity to Ticagrelor, history of bleeding, recent stroke, hemorrhagic CV, age >70, prior MI.

F. NITROGLYCERIN drip at 5-10 mcg/min (titrate to SBP>100 and Patient's chest pain) **(started in ED/ or by EMS)**

Time started:_____ infusion rate:_____mcg/min Final infusion rate_____mcg/min

G. METOPROLOL TARTRATE 5mg IV (may repeat to total of 3 doses as long as SBP>110 and HR>70) **(ED/EMS)**

Times given:_____total dose :_____mg

Ronald Jackson MD

BCEMS Medical Director

BRADYCARDIA

Patients Presenting with Pulse Less than 60 With Symptoms of Hypoperfusion

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Past medical history ▪ Medications - Beta blockers, Calcium channel blockers, Clonidine, Digoxin - Antiarrhythmic medication (Amiodarone, Flecaininde, Propafenone, Quinidine, Sotaolol) ▪ Pacemaker ▪ History of heart block, arrhythmias ▪ Known coronary disease	▪ HR < 60/min with hypotension, acute altered mental status, chest pain, acute CHF, seizures, syncope, or shock secondary to bradycardia ▪ Chest pain ▪ Respiratory distress ▪ Hypotension or Shock ▪ Altered mental status ▪ Syncope	▪ Acute myocardial infarction ▪ Hypoxia ▪ Pacemaker failure ▪ Hypothermia ▪ Sinus bradycardia ▪ Athletes ▪ Head injury (elevated ICP) or Stroke ▪ Spinal cord lesion ▪ Sick sinus syndrome ▪ AV blocks (1°, 2°, or 3°) ▪ Overdose

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). ▪ Administer Oxygen 10-15 L via non rebreather mask (9000).	R
▪ Assist ALS with Cardiac monitor and 12-lead EKG (9030) if indicated. ▪ Pulse Oximetry (9001) to maintain Oxygen saturation above 90%. ▪ Obtain vitals every 5-10 minutes. ▪ Transport to receiving facility, with ALS intercept.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ IV NS Bolus of 10-20 cc/kg and reassess. May administer up to 20cc/kg.[2]	A
▪ **ALS required for Symptomatic Bradycardia and presence of ALOC, Chest Pain, CHF, Seizures, Syncope or Shock.** ▪ 12-lead EKG; if abnormal, transmit when possible to Medical control. ▪ Administer Atropine 0.5 mg IV q 5 minutes to a max of 3mg for Symptomatic Bradycardia. ▪ Cardiac External Pacing (9033) for ongoing Unstable Symptomatic Bradycardia, particularly with signs of hypoperfusion, such as with Complete Heart Block, Chest Pain or Hypotension. Consider pain medication to allow better tolerability of Cardiac External Pacing (9033). ▪ Consider Dopamine if patient is still hypotensive and bradycardic. Start at 5 mcg/kg/min and titrate as high as 20 mcg/kg/min, monitoring for ventricular ectopy (PVCs, VT). ▪ Consider Epinephrine drip, 2-10 mcg/min IV for ongoing bradycardia refractory to or as an alternative to Cardiac External Pacing (9033).	P
▪ ** Call Medical Control for Refractory Bradycardia and suspected STEMI. Consider Glucagon 1 mg (1 unit) IV if patient remains bradycardic. Consider Calcium if patient remains bradycardic and is on calcium channel blockers.**	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Only treat Symptomatic Bradycardia. Do not use atropine if there is a wide complex rhythm.
In wide complex slow rhythm, consider Hyperkalemia (5004).

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

NARROW COMPLEX TACHYCARDIA (SVT)

Presentation with Symptomatic Narrow QRS Tachycardias Such as PAT or Atrial Fibrillation

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Medications (Aminophylline, Diet pills, Thyroid Supplements, Decongestants, Digoxin) ▪ Diet (caffeine, chocolate) ▪ Drugs (nicotine, cocaine, ephedrine) ▪ Past medical history ▪ History of palpitations / heart racing ▪ Syncope / near syncope	▪ HR > 100/min ▪ **QRS < .12 Sec (if QRS > .12 sec, go to V-Tachycardia Protocol** ▪ **If history of WPW, go to V-tachycardia Protocol** ▪ Dizziness, CP, SOB ▪ Potential presenting rhythm Atrial/Sinus tachycardia Atrial fibrillation / flutter Multifocal atrial tachycardia Nodal reentrant tachycardia Accessory pathway tachycardia	▪ Heart disease (WPW, Valvular) ▪ Sick sinus syndrome ▪ Myocardial infarction ▪ Electrolyte imbalance ▪ Exertion, Pain, Emotional stress ▪ Fever ▪ Hypoxia ▪ Hypovolemia or Anemia ▪ Drug effect / Overdose (see HX) ▪ Hyperthyroidism ▪ Pulmonary embolus

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial patient contact (2000). ▪ Oxygen Administration (9000) as indicated (15L NRB if unstable).	R
▪ Assist ALS with Cardiac Monitor and 12-lead EKG (9030) if indicated. Pulse oximetry (9001). ▪ Transport to receiving facility.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2]	A
▪ **ALS required for persistent, symptomatic Narrow Complex Tachycardia.** ▪ 12-lead EKG; transmit when possible to Medical Control. ▪ For stable tachycardia, consider Valsalva or Vagal maneuvers. ▪ For regular rhythm and heart rate above 145 bpm (suspected PAT), administer Adenosine 6 mg IV *rapidly*. May repeat up to two more doses of 12 mg each. ▪ For irregular rhythm with heart rate above 130 bpm (suspected atrial fibrillation), administer Diltiazem 0.25 mg/kg IV bolus (maximum dose 20 mg IV). ▪ For narrow complex tachycardia with altered mental status or systolic pressure < 80 mmHg, consider Synchronized Cardioversion starting at 100 Joules (9034). Premedicate with Midazolam, 0.05-0.1 mg/kg IV (2.5 mg/dose maximum) if the patient is conscious. Be prepared to ventilate with BVM to maintain oxygenation and ventilation (4000).	P
▪ ** Call Medical Control for Refractory Tachycardia, or Cardiac Arrest. Discuss additional possible medications of Metoprolol 5 mg IV and or Amiodarone 150 mg IV**.	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

If patient has a history of WPW or delta waves on the 12 lead EKG, DO NOT administer Adenosine, Calcium blockers (e.g. Diltiazem) or Beta Blockers (e.g. Metoprolol). Amiodarone is a safer choice.
Monitor for Hypotension if using Calcium Channel or Beta Blockers.
For Asystole following IV Adenosine, coach the patient to cough regularly until the rhythm returns.
Document all rhythm changes with monitor strips and obtain strips after each therapeutic intervention.
QA 100% review of SVT patients requiring Synchronized Cardioversion.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

WIDE COMPLEX TACHYCARDIA (VT)

Prehospital Management of Wide Complex Tachycardia With a Palpable Pulse

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Past medical history/ medications, diet, drugs. ▪ Syncope / near syncope ▪ CHF ▪ Palpitations ▪ Pacemaker ▪ Allergies: lidocaine / Novocain	▪ Ventricular tachycardia on EKG (Runs or sustained) ▪ Conscious, rapid pulse ▪ Chest pain, shortness of breath ▪ Dizziness ▪ Rate usually 150-180 bpm for sustained V-Tach ▪ **QRS > .12 Sec**	▪ Artifact / Device failure ▪ Cardiac ▪ Endocrine / Metabolic ▪ Drugs ▪ Pulmonary

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). ▪ Administer Oxygen 10-15 L via non rebreather (9000).	R
▪ If no palpable pulse, refer to VF/ Pulseless VT (3010) Guidelines. ▪ Assist ALS with Cardiac Monitor and 12-lead EKG (9030). Initiate Pulse Oximetry (9001). ▪ Verify a Palpable Pulse. Obtain vitals every 5-10 minutes. ▪ Transport to receiving facility, with ALS intercept if not already on-scene.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2]	A
▪ **ALS required for Wide QRS Tachycardia >100 bpm and or with symptoms of hypoperfusion such as Dyspnea, Chest Pain or ALOC.** ▪ 12 lead-EKG (9030); transmit when possible to Medical Control. ▪ Consider Adenosine (diagnostic) administration 6 mg IV for stable, regular monomorphic VT ▪ Administer Amiodarone 150 mg IV bolus (over 10 minutes). May infuse at 1 mg/minute following conversion. ▪ Consider Lidocaine 1 mg/kg IV as an alternate possibility. May infuse at 2-4 mg/minute following successful Cardioversion (9034). ▪ For Torsades De Pointes, administer Magnesium 2 gm IV *slowly*. ▪ For deterioration such as with Hypotension (5003), loss of pulse or consciousness, plan Synchronized Cardioversion (9034), using 100-200 Joules. Premedicate with Midazolam, 0.05-0.1 mg/kg IV (2.5 mg/dose maximum), if feasible and patient is conscious. Be prepared to oxygenate using BVM (4000). ▪ Always repeat a 12-lead EKG following chemical or electrical Cardioversion.	P
▪ ** Call Medical Control for Refractory VT or suspected STEMI to determine receiving facility.**	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

For witnessed, monitored perfusing Ventricular Tachycardia, try having the patient cough forcefully first.
For presumed Hyperkalemia (5004) such as patients with end stage renal disease or dialysis, administer Sodium Bicarbonate (1 meq/kg IV over 5minutes).
QA 100% review of VT patients requiring Cardioversion. EKGs will be attached to PCR.

Ronald Jackson MD

BCEMS Medical Director

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

Section 6000

Trauma and Environmental Emergencies

MULTI-SYSTEM TRAUMA

General Prehospital Care for the Multi-SystemTrauma Patient

History	Signs and Symptoms	ASSESSMENT
▪ Time and Mechanism of Injury ▪ Damage to structure or vehicle ▪ Location in structure of vehicle ▪ Others injured or dead ▪ Speed and details of MVC ▪ Restraints/ protective equipment ▪ Past medical history ▪ Medications	▪ Pain, swelling ▪ Deformities, lesions ▪ Bleeding ▪ Altered mental status or unconscious ▪ Hypotension or Shock ▪ Cardiac and or respiratory arrest ▪ Core temperature	▪ Chest (Tension pneumothorax, Flail chest, Pericardial tamponade, Open chest wound, Hemothorax) ▪ Intra-abdominal bleeding ▪ Pelvis/Femur/Spine fracture ▪ Head injury/Cord injury ▪ Extremity Fracture/ Dislocation ▪ Facial injury/ Airway obstruction ▪ Hypothermia

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). Observe for underlying medical conditions. ▪ Trauma Triage Guidelines (1011-1012). Vital signs with Glascow Coma Score (A2). ▪ Airway Management (4000), Oxygen Administration (9000). ▪ Control external hemorrhage using direct pressure. Consider Hemostatic Agent (9081) and or Trauma Tourniquets (9083). Occlude sucking chest wounds, cover eviscerations (9080).	R
▪ For abnormal vital signs, notify Medical Control to determine and transport to appropriate destination. Consider utilizing Air Medical Transport (1017). ▪ Consider Spinal Immobilization (9062)[1], and Pelvic Sling (9061).[2,3,4] ▪ Expose patient so that any hidden injuries may be found. ▪ For stable vital signs, complete assessment, splint suspected fractures (9063).[1]	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ For hypotension administer NS 10-20 cc/kg IV bolus; reassess, repeat bolus if indicated.[2]	A
▪ **ALS required for all Mult-System Trauma.** ▪ Repeat patient assessment. Prioritize treatment based upon critical injuries. Injuries to the head and spine, chest, abdomen and pelvis take priority over other injuries. ▪ Consider Head Injury (6010) Guidelines. ▪ Chest decompression for Tension Pneumothorax (9060). ▪ Consider Administration of Narcotics for Pain Control (2060).	P
▪ ** Call Medical Control for trauma patients with abnormal vital signs requiring rapid triage and transport to a trauma center, and to assist with Air Medical Transport.**	M

[1]EMR, [2]EMT, [3]AEMT, and [4]Paramedic providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

If bleeding is rapid and uncontrolled, manage patient in following order: C (control bleeding), then A (airway), then B (breathing). Geriatric patients should be evaluated with a high index of suspicion. Occult injuries are more difficult to recognize in elderly patients who may decompensate unexpectedly. Mechanism is the most reliable indicator of serious injury. Do not overlook the possibility of domestic violence or abuse. In prolonged extrications or serious trauma, consider Air Medical Transport to shorten transport time. Scene times should not be delayed for procedures. These should be performed en-route. Rapid transport of the unstable trauma patient is the goal. Scene times under 10 minutes are desired.

Ronald Jackson MD

BCEMS Medical Director

SUSPECTED C-SPINE INJURY

Prehospital Decision Tree for Implementing Spinal Immobilization
NSAIDS: Neurologic exam, Significant Mechanism, Alertness, Intoxication, Distracting Injury, Spinal Exam

SUBJECTIVE	OBJECTIVE	ASSESSMENT
▪ History of falls, ejection, abrupt deceleration crashes ▪ Arthritis, cancer or osteoporosis ▪ Ingestion of drugs or alcohol ▪ Recent painful injury	▪ Exam for focal neuro deficit, alertness ▪ Test range of motion: chin to chest, extend neck up (look up) and turn head side to side without spinal process pain ▪ Evaluate neck, spine and extremities ▪ Evidence for intoxication	▪ Significant mechanism includes high-energy events such as ejection, high falls, abrupt deceleration crashes ▪ **Range of motion should not be assessed if midline point tenderness over spinal processes**

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

- **N**euro Exam: Any focal deficit?----------YES--------
  Look for focal deficits such as tingling, reduced strength, extremity numbness

N

- **Significant** (high energy) mechanism of Injury?----------YES--------

N

- **A**lertness: Any alteration in patient?----------YES--------
  Is pt not oriented to person, place, time, situation, and any new changes?

N

- **I**ntoxication: any evidence?----------YES--------
  Impaired decision making ability?

N

- **D**istracting Injury: Any painful Injury that might distract the patient from the pain of a C-spine injury?----------YES--------

E
1

- **S**pinal exam: Point tenderness over the spinal process or pain with neck range of motion?----------YES-------

N

A
2

Spinal Immobilization Not Required **Spinal Immobilization Required**

[1]EMR and [2] EMT providers may perform these procedures if credentialed with the appropriate OM.

The decision to NOT implement spinal immobilization is the responsibility of the highest level EMS Provider present. The Provider must document decision in PCR. Patients with penetrating trauma to the head and neck or torso and no spinal injury should not be immobilized. A rigid cervical collar with the patient firmly secured to an EMS stretcher may be most appropriate for patients found ambulatory, for prolonged transport of patients or when a backboard is not indicated. Consider immobilization in any patient with arthritis, cancer, or other underlying spinal or bone disease. If use of the backboard is associated with more pain, agitation (often with children) or respiratory compromise, its use may be contraindicated.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

HEAD INJURY

Prehospital Management of Head and Neck Injury

History	Signs and Symptoms	ASSESSMENT
▪ Time and Mechanism of Injury ▪ Loss of Consciousness ▪ Bleeding ▪ Restraints/ protective equipment ▪ Past medical history ▪ Medications, Allergies ▪ Possible assault or gunshot wound ▪ Loss of sensation	▪ Pain, swelling, Deformities, Bleeding ▪ Irregular or abnormal breathing patterns ▪ Altered mental status or unconscious ▪ Vomiting, Seizures, Headaches ▪ Respiratory distress/ failure ▪ Hypotension or Shock, bradycardia ▪ Major traumatic mechanism of injury ▪ Unequal pupils, incontinence, paralysis ▪ Bruises, cuts, contusion or depressions of scalp or skull, CSF or blood drainage	▪ Skull fracture ▪ Brain injury (Concussion, Contusion, Hemorrhage or Laceration) ▪ Epidural hematoma ▪ Subdural hematoma ▪ Subarachnoid hemorrhage ▪ Spinal Injury ▪ Abuse

TREATMENT GUIDELINES

R-EMR	E – EMT BASIC	A-EMTA	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). Observe for underlying medical conditions. ▪ Trauma Triage Guidelines (1011-1012). Vital signs with Glascow Coma Score (A2). ▪ Airway Management (4000) and Oxygen Administration (9000).). ▪ For stable vital signs, complete assessment. Consider Multi-System Trauma (6000).	R
▪ Spinal Immobilization Procedure (9062).[1] ▪ Pulse Oximetry (9001). Assist ALS with cardiac monitor. ▪ Transport to appropriate facility; consider Air Medical Transport Guidelines (1017).	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Blood Glucose Analysis (9040).[2]	A
▪ **ALS required for all major Head Injuries.** ▪ Repeat Patient Assessment. ▪ Consider endotracheal intubation (9011-9013) if GCS <8 and patient can't cough or speak. ▪ Administer Lidocaine (1.0mmg/kg IVP/IO or 2 mg/kg ETT) if intubating Head Injury patient. ▪ Consider Seizure Guidelines (7020) if seizures are witnessed or suspected.	P
▪ ** Call Medical Control for Head Injury patients with GCS <8 or with abnormal vital signs requiring rapid triage and transport to a trauma center.**	M

[1]EMR, and [2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

IF GCS is <12, consider rapid packaging and Air Medical Transport.
Avoid overzealous hyperventilation; ventilate at 10 bpm for an adult, 20 bpm for a child and 25 bpm for an infant if patient is requiring ventilatory support.
Increased intracranial pressure may cause Hypertension and Bradycardia. Hypotension usually indicates injury or shock unrelated to the head injury and should be aggressively treated. Monitor and document changes in level of consciousness. Limit IV fluids unless patient demonstrates Hypotension.
Concussions are periods of confusion or LOC associated with trauma which may have resolved by the time of EMS arrival. Any prolonged confusion or altered mental status that doesn't normalize within 15 minutes, or any documented loss of consciousness should be evaluated by a physician ASAP.
If a spinal injury is the only suspected injury, consider making the transport as smooth as possible which may mean slowing the transport vehicle down, regardless of C-Spine Immobilization.
QA 100% of patients requiring Air Medical Transport.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

MAJOR EXTREMITY TRAUMA

Prehospital Management of Extremity Trauma

History	Signs and Symptoms	ASSESSMENT
▪ Time and Mechanism of Injury (Crush/ penetrating/ amputation) ▪ Open vs. closed wound/fracture ▪ Wound contamination ▪ Past medical history ▪ Medications, Allergies ▪ Loss of consciousness ▪ Loss of sensation	▪ Pain and tenderness, Swelling ▪ Deformities, Bruising, Bleeding ▪ Exposed bone ▪ Altered sensation/ motor function ▪ Diminished pulse/ capillary refill ▪ Decreased extremity temperature ▪ Immobility of joint or extremity	▪ Abrasion ▪ Contusion ▪ Laceration ▪ Sprain ▪ Dislocation ▪ Fracture ▪ Amputation ▪ Crush injury ▪ Vascular compromise

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). Oxygen Administration (9000). ▪ Wound Care (9080). Do not intentionally replace any bone fragments. ▪ Immobilize and Splint Fractures or possible fractures (9063). Immobilize dislocations in the position found. Position extremities from crush injury at level of heart. ▪ Control hemorrhage with pressure. Apply cold pack to injured area with edema. ▪ If hemorrhage cannot be controlled with pressure, consider Hemostatic Agent (9081). If hemorrhage is life-threatening, consider Trauma Tourniquet Procedure (9083). ▪ Apply gentle traction to a distal extremity found to have severe deformity, lacking pulse or with cyanosis prior to splinting.	R
▪ Spinal Immobilization if indicated (9062).[1] ▪ Monitor vitals every 10 min; (3-5 if critical). Assist ALS with Cardiac Monitor if indicated. ▪ Pulse Oximetry (9001) if oxygen is needed. ▪ Stabilize suspected femur fractures with Traction Splint (9063). ▪ If distal extremity pulses are absent with signs of decreased circulation, or vitals suggest shock, transport expeditiously and complete assessment en-route. ▪ For stable vital signs, complete assessment. Transport to appropriate facility.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Administer NS bolus of 10-20 cc/kg IV for Hypotension (5003) and reassess.[2]	A
▪ **ALS required for Major Extremity Trauma, loss of pulses or Hypotension.** ▪ Reassess and treat volume status for major trauma and crush injuries. ▪ Administer Analgesia as needed for Pain Control (2060).	P
▪ ** Call Medical Control for extremities lacking pulses despite traction or reduction. Consider facilitated transport to an appropriate receiving trauma hospital.**	M

[1]EMR, and [2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Check pulses, motor and sensory (PMS) before, during and after splinting, and after moving patient.
Clean amputated parts in sterile dressing soaked in NS, place in sealed bag, in iced air-tight container.
Hip dislocations, knee and elbow fractures/dislocations have a high incidence of vascular compromise.
Blood loss may be hidden with extremity injuries. Associated lacerations must be treated within 6 hrs.

Ronald Jackson MD

BCEMS Medical Director

SIMPLE JOINT DISLOCATION

Prehospital Management of Simple Joint Dislocation

History	Signs and Symptoms	ASSESSMENT
▪ Time and Mechanism of Injury (Crush/ penetrating/ amputation) ▪ Open vs. closed wound/fracture ▪ Wound contamination ▪ Past medical history ▪ Medications, Allergies ▪ Loss of consciousness ▪ Loss of sensation	▪ Pain and tenderness, Swelling ▪ Deformities, Bruising, Bleeding ▪ Exposed bone ▪ Altered sensation/ motor function ▪ Diminished pulse/ capillary refill ▪ Decreased extremity temperature ▪ Immobility of joint or extremity	▪ Dislocation ▪ Vascular compromise

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). Oxygen Administration (9000). ▪ Wound Care (9080). Do not intentionally replace any bone fragments. ▪ Immobilize and Splint Fractures or possible fractures (9063). Immobilize dislocations in the position found. Position extremities from crush injury at level of heart. ▪ Apply gentle traction to a distal extremity found to have severe deformity, lacking pulse or with cyanosis prior to splinting.	R
▪ Spinal Immobilization if indicated (9062).[1] ▪ Monitor vitals every 10 min; (3-5 if critical). Assist ALS with Cardiac Monitor if indicated. ▪ Pulse Oximetry (9001) if oxygen is needed. ▪ If distal extremity pulses are absent with signs of decreased circulation, or vitals suggest shock, transport expeditiously and complete assessment en-route. ▪ For stable vital signs, complete assessment. Transport to appropriate facility.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Administer NS bolus of 10-20 cc/kg IV for Hypotension (5003) and reassess.[2] ▪ If indirect mechanism to simple shoulder joint, reduce dislocation if no pulse is present or if prolonged time to facility arrival: Shoulder Dislocation Reduction (9065).[2]	A
▪ **ALS required for Major Extremity Trauma, loss of pulses or Hypotension.** ▪ Reassess and treat volume status for major trauma and crush injuries. ▪ Administer Analgesia as needed for Pain Control (2060).	P
▪ ** Call Medical Control for extremities lacking pulses despite traction or reduction. Consider facilitated transport to an appropriate receiving trauma hospital.**	M

[1]EMR, and [2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Check pulses, motor and sensory (PMS) before, during and after splinting, and after moving patient.
Hip dislocations, knee and elbow fractures/dislocations have a high incidence of vascular compromise.
Blood loss may be hidden with extremity injuries. Associated lacerations must be treated within 6 hrs.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

BURNS

Prehospital Management of Burn Trauma

History	Signs and Symptoms	ASSESSMENT
▪ Type of exposure (heat, gas, chemical) ▪ Inhalation injury ▪ Time of injury ▪ Past medical history ▪ Medications and allergies ▪ Other trauma present ▪ Loss of consciousness ▪ Tetanus immunization status	▪ Burns (percentage of BSA and degree) ▪ Dizziness, swelling, pain ▪ Unconscious ▪ Hypotension/ Shock ▪ Airway failure/ Respiratory distress ▪ Singed facial or nasal hair ▪ Hoarseness/ wheezing/ cough ▪ Speech difficulties	▪ Superficial (1st degree)- red and painful ▪ Partial thickness (2nd degree) blistering ▪ Full thickness (3rd degree)- painless, charred leathery skin ▪ Thermal burn, Radiation injury ▪ Chemical burn, electrical burn

TREATMENT GUIDELINES

R-EMR	E -EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). Remove patient from hazard. ▪ Using Rule of Nines (A3), determine total BSA involvement and degrees of burns, and determine the nature of the burn (thermal, chemical, electrical or radiation). ▪ Identify entrance and exit for electrical burns. ▪ Remove jewelry (rings, bracelets and constricting items and non-adherent clothing. ▪ Airway Management (4000) and Oxygen Administration (9000). Assess for burns to airway. ▪ For total BSA (TBSA) involvement is <10%, cooling of area with sterile water or NS or burn gel may be performed. Keep burn area as clean as possible. ▪ Cover burn with dry sterile sheet dressing. Prevent hypothermia. Elevate burned extremity. ▪ **For Chemical Burns**, remove contaminated clothing without exposing provider(s) to chemical. If substance is powder form, gently brush residual chemical off skin and away from patient's body. Flush area or irrigate eye(s) if affected with water for 15 minutes (continue during transport). Do not contaminate other eye or allow patient to rub eyes.	R
▪ Assist ALS with Cardiac Monitor for electrical burns, Respiratory Failure, or age >50. ▪ Pulse Oximetry (9001) for Respiratory Distress (4002) and/or if Oxygen is used. ▪ For critical burns (see below), call Medical Control to activate Trauma Systems. ▪ For non-critical burns (<15% TBSA, no inhalation injury, normotensive), complete evaluation and Transport to appropriate facility.	E
▪ Establish two large IVs with NS, draw labs; **do not delay transport for IV access.**[2] ▪ For critical burns, administer IV NS 20 cc/kg bolus rapidly via two lines and reassess.[2]	A
▪ **ALS required for all Critical Burns.** ▪ Reassess and treat volume and airway status. Intubate early for upper airway involvement. ▪ Administer Analgesia as needed for Pain Control (2060). Evaluate for CO poisoning.	P
▪ ** Call Medical Control for Critical Burns to determine most appropriate receiving hospital destination and for concerns of possible child abuse.**	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Critical Burns include burns (second-degree or worse) > than 15% BSA, with Multi-System Trauma, and with airway compromise. Potential CO exposure should be treated with 100% Oxygen. Severe (second-degree or worse) burns encircling the hands or feet, or to the face and genitalia are also considered critical burns.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

HYPOTHERMIA

Prehospital Management of Cold Related Emergencies

History	Signs and Symptoms	ASSESSMENT
▪ Exposure to environment even in normal temperatures ▪ Exposure to extreme cold ▪ Length of exposure/ Wetness ▪ Extremes of age ▪ Drug use: Alcohol, barbiturates ▪ Infections/ Sepsis ▪ Past medical history ▪ Medications/ Allergies	▪ Cold, clammy ▪ Shivering ▪ Mental status changes ▪ Extremity pain or sensory abnormality ▪ Bradycardia ▪ Hypotension or shock ▪ Poor coordination and motor function ▪ Skin color pale or blue	▪ Sepsis ▪ Environmental exposure ▪ Hypoglycemia ▪ CNS dysfunction Stroke Head Injury Spinal Cord Injury

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). Handle patient gently. ▪ Oxygen Administration (9000). ▪ Document patient's temperature. ▪ Remove or cut away patient's wet clothing and move patient to a warm environment. ▪ Apply hot packs to neck, arm pits and groins and apply warm blankets.	R
▪ Pulse oximetry (9001). Assist ALS with Cardiac monitor.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Blood Glucose Analysis (9040).[2] If glucose < 60, follow Hypoglycemia (7035) Guidelines. ▪ Administer IV bolus (10-20 cc/kg) of warmed NS if available and reassess.[2]	A
▪ **ALS required for Hypothermia with temperature <95° F (35° C).** ▪ 12 lead EKG; transmit when possible to Medical control.	P
▪ ** Call Medical Control for Hypothermia with Cardiac Arrest or Unconsciousness.**	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

NO PATIENT IS DEAD UNTIL WARM AND DEAD.
Hypothermia is defined as core temperature <95° F (35° C).
Extremes of age are more susceptible to hypothermia.
With temperature <30° C, ventricular fibrillation is a common cause of death. Gentle handling may help.
Intubation may cause ventricular fibrillation, so it should be done gently by most experience person.
Hyperventilation may cause ventricular fibrillation. Hypothermia may produce severe bradycardia.
Consider withholding CPR if patient has organized rhythm or other signs of life.
For persons with temperature below 30°C, pacing should not be done and antiarrhythmics may not work.
EKG findings with hypothermia may include a characteristic J wave (Osborn wave), T wave inversions and prolongation of the PR, QRS and QT intervals.
Hypothermic patients may paradoxically diurese and become dehydrated. LR is not a suitable fluid to use in hypothermia patients, as their livers will not metabolize LR. Similarly, medications are ideally withheld until the core temperature is at least 33° C.
Two minutes in a microwave on "high" per liter of IV fluid is usually sufficient for warming.
QA 100% of patients with cold-related Cardiac Arrest.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

HYPERTHERMIA

Prehospital Management of Heat Related Emergencies

History	Signs and Symptoms	ASSESSMENT
▪ Age ▪ Exposure to increased temperature and or humidity ▪ Extreme exertion ▪ Time and length of exposure ▪ Poor PO intake ▪ Fatigue and or muscle cramping ▪ Past medical history ▪ Medications/ Allergies	▪ Altered mental status or unconscious ▪ Hot, dry or sweaty skin ▪ Hypotension or shock ▪ Seizures ▪ Nausea or vomiting ▪ Tachycardia ▪ Muscle cramps ▪ Weakness or exhaustion ▪ Dizziness or fainting	▪ Fever (Infection) ▪ Dehydration ▪ Medications ▪ Hyperthyroidism (storm) ▪ Delirium Tremens (DTs) ▪ Heat Cramps ▪ Heat Exhaustion ▪ Heat Stroke ▪ CNS lesions or tumors

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). Remove patient from heat source. ▪ Document patient's temperature. ▪ Remove patient's clothing and move patient to a cool environment. ▪ Apply room temperature water to skin and increase air flow around patient. ▪ Oxygen Administration (9000). ▪ If patient is responsive and not nauseous, have patient drink water or ½ strength Gatorade. ▪ If the patient is unresponsive or vomiting, place the patient on their side. ▪ If available, apply cool packs or ice to the neck, groin and armpits.	R
▪ Pulse Oximetry (9001). Assist ALS with Cardiac Monitor. ▪ Criteria for release without Medical Control: 1) Systolic <160 and >90, diastolic <100 and HR <100 bpm, 2) resolution of all initial complaints for >15 minutes, all complaints assessed, no priority signs or symptoms, and ALS not required, and 3) Transport is offered and declined and a refusal is signed.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Administer NS bolus 10-20 cc/kg IV and reassess. May repeat x 1 if lungs remain clear.[2]	A
▪ **ALS required for severe hyperthermia.** ▪ 12-lead EKG; transmit when possible to Medical control.	P
▪ ** Call Medical Control for Chest Pain, SOB, Respiratory Failure, ALOC, or Seizures.**	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Extremes of age are more prone to heat emergencies. Certain medications predispose to hyperthermia: TCAs, phenothiazines, anticholinergic medications, ETOH. Cocaine, Amphetamines and Salicylates may elevate body temperature. Sweating generally disappears as body temperature rises above 104°F.
HEAT CRAMPS consist of benign muscle cramping 2° to dehydration and is not associated with an elevated temperature. HEAT EXHAUSTION consists of dehydration, salt depletion, dizziness, fever, mental status changes, headache, cramping, nausea and vomiting. Vital signs usually consist of tachycardia, hypotension and an elevated temperature.
HEAT STROKE consists of dehydration, tachycardia, hypotension, temperature>104°F and an ALOC .

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

DROWNING

Prehospital Management of Water Submersion Emergencies

History	Signs and Symptoms	ASSESSMENT
▪ Submersion in water of any depth ▪ Possible trauma to C-Spine ▪ Possible history of trauma ▪ Possible diving or diving board injury ▪ Duration of immersion ▪ Temperature of water ▪ Possible hypothermia	▪ Unresponsive ▪ Mental status changes ▪ Decreased or absent vital signs ▪ Vomiting, coughing ▪ Apnea, respiratory distress/ failure ▪ Respiratory stridor or wheezing ▪ Pulmonary rales	▪ Possible causes of drowning: Trauma Pre-existing medical condition Pressure injury (diving with barotraumas or decompression sickness) ▪ Post-immersion syndrome

TREATMENT GUIDELINES

R-EMR	E – EMT BASIC	A-EMTA	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). Place patient in position of comfort. ▪ Evaluate for evidence of Respiratory Distress (4002). ▪ Airway Management (4000), and Oxygen Administration (9000). ▪ Document patient's temperature (9047). ▪ Remove or cut away patient's wet clothing and move patient to a warm environment. ▪ Glasgow Coma Scale (A2)	R
▪ Pulse Oximetry (9001) to maintain Oxygen saturation above 90%. Cardiac monitor. ▪ Blood Glucose measurement (9040). ▪ Consider Spinal Immobilization Procedure (9062).[1] ▪ Consider Possible Head Injury (6010) or Hypothermia (6040) Guidelines. ▪ Transport to receiving facility. **Do not delay transport for procedures when possible.**	E
▪ Airway Management (4000). For respiratory failure, consider BIAD, (9007).[2] ▪ Blood Glucose measurement (9040).[2] ▪ Consider administration of Albuterol SVN for respiratory distress. ▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2]	A
▪ **ALS required for all water submersion emergencies.** ▪ 12 lead EKG; transmit when possible to Medical control. ▪ Consider CPAP (9003)[3] for Respiratory Distress (4002). Capnography (9002).[2,3]	P
▪ ** Call Medical Control for Drownings with Respiratory Distress, Hypothermia and or Cardiac Arrest.**	M

[2]EMT and [3]AEMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

NO PATIENT IS DEAD UNTIL WARM AND DEAD. Resuscitate all with cold water submersion for < 1 hour.
Hypothermia is defined as core temperature <95° F (35° C).
Have a high index of suspicion for possible spinal injuries.
Some patients may develop delayed respiratory distress. All victims should be transported for evaluation due to potential worsening over the next several hours.
Drowning is a leading cause of death among would-be rescuers. Allow appropriately trained and certified rescuers to remove victims from areas of danger.
With pressure injuries (decompression/ barotraumas), consider availability of a hyperbaric chamber.
QA 100% of patients with cold-related Cardiac Arrest.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

Section 7000

Medical, Neurologic and OB/GYN Emergencies

ALTERED LEVEL OF CONSCIOUSNESS (ALOC)

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Known diabetic, medic alert tag ▪ Drugs, drug paraphernalia ▪ Report of illicit drug use or toxic ingestion ▪ Past medical history ▪ Medications ▪ History of trauma ▪ Change in responsiveness/condition ▪ Changes in feeding or sleep habits ▪ Disorientation	▪ Decreased mental status or lethargy ▪ Change in baseline mental status ▪ Bizarre behavior ▪ Hypoglycemia (cool, diaphoretic skin) ▪ Hyperglycemia (warm, dry skin; fruity breath; Kussmaul respiration; signs of dehydration) ▪ Irritability ▪ Lowered gross motor or deep tendon reflexes ▪ Glasgow Coma Scale <14	▪ CNS (stroke, tumor, seizure, infection, trauma) ▪ Cardiac (MI, CHF) ▪ Hypothermia ▪ Infection (CNS and other) ▪ Thyroid (hyper / hypo) ▪ Shock: septic, metabolic, trauma ▪ Diabetes (hyper/ hypoglycemia) ▪ Toxicologic or ingestion ▪ Acidosis / Alkalosis ▪ Pulmonary (Hypoxia) ▪ Electrolyte abnormality ▪ Psychiatric disorder

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). ▪ Administer Oxygen 10-15 L via non rebreather (9000). ▪ Consider Spinal Immobilization (9062). Stroke Scale (A5). Glasgow Coma Scale (A2).	R
▪ Assist ALS with Cardiac Monitor and 12-lead EKG if indicated. ▪ Transport to receiving facility.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Blood Glucose Analysis (9040); for glucose <60 and awake with patent airway, administer 1 tube Oral Glucose PO/SL. Reevaluate blood glucose in 5 minutes; may repeat Oral Glucose if ALOC and or glucose remains <60.[2] ▪ If Paramedic is not on scene or expected within 10 minutes and lungs are clear, consider D5W, 5 cc/kg IV Bolus, and check for breath sounds after giving bolus.[2] ▪ For glucose <60 and no IV, administer 1 unit (1 mg) Glucagon IM.[2] ▪ For glucose <60 and patent IV, administer 12.5-25 gm of 50% Dextrose IV. ▪ Reevaluate blood glucose and repeat as indicated for glucose <60 and ALOC. ▪ Consider Naloxone for decreased respirations and glucose >60. ▪ IV NS 10-20 cc/kg bolus for signs of dehydration and/or blood glucose >250.[2]	A
▪ **ALS required for continued ALOC, long transport, oral diabetic medication.** ▪ Consider other causes of ALOC if patient not responding to above measures. ▪ 12 lead EKG; transmit when possible to Medical control if abnormal.	P
▪ ** Call Medical Control for Stroke, worsening LOC or need for Intubation**.	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Be especially cautious if the patient is on oral diabetic medication. Beware of Hypoglycemia in alcoholics.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

SYNCOPE

Prehospital Management of Syncope

SUBJECTIVE	OBJECTIVE	ASSESSMENT
▪ Cardiac history, stroke, seizure ▪ Occult blood loss (GI, ectopic) ▪ Females: LMP, vaginal bleeding ▪ Fluid loss: nausea, vomiting, diarrhea ▪ Past medical history ▪ Medications	▪ Loss of consciousness with recovery ▪ Light headedness, dizziness ▪ Palpitations, slow or rapid pulse ▪ Pulse irregularity ▪ Decreased blood pressure	▪ Vasovagal ▪ Orthostatic hypotension ▪ Cardiac syncope ▪ Micturition / Defecation syncope ▪ Psychiatric ▪ Stroke ▪ Hypoglycemia ▪ Seizure ▪ Shock (see Shock Protocol) ▪ Toxicological (Alcohol) ▪ Medication effect (hypotension)

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). ▪ Administer Oxygen 10-15 L via non rebreather mask (9000). ▪ Consider Spinal Immobilization (9062). ▪ Perform Stroke Scale (A5).	R
▪ Assist ALS with Cardiac Monitor and 12-lead EKG if indicated. ▪ Transport to receiving facility, with ALS intercept if ALS not already on-scene.	E
▪ Blood Glucose Analysis (9040); for glucose <60 and awake with patent airway, administer 1 tube Oral Glucose PO/SL.[2] ▪ For glucose <60 and no IV access, administer 1 unit (1 mg) Glucagon IM.[2] ▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Reevaluate blood glucose and treat if glucose remains <60 (7035) and patent IV, administer 12.5-25 gm of D50 (50% Dextrose) IV. ▪ Consider Naloxone for decreased respirations and glucose >60. ▪ Consider measuring orthostatic vital signs. ▪ Administer 10-20 cc/kg bolus of NS IV for Hypotension (5003) or orthostasis.[2]	A
▪ **ALS required for continued ALOC, Glucose >250, Stroke, MI or Arrhythmia.** ▪ Consider other causes of syncope if patient not responding to above measures. ▪ 12-lead EKG; transmit when possible to Medical control if abnormal. ▪ Consider alternate causes of syncope including Arrhythmia (5020-5024), Hypoglycemia (7035), Hypotension (5003), Seizure (7020) or Myocardial Infarction (5000).	P
▪ ** Call Medical Control for syncope associated with Stroke or STEMI**.	M

[2]EMT and providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Assess for signs and symptoms of trauma if possible fall with Syncope. Geriatric Syncope is often associated with Cardiac Arrhythmia.

Ronald Jackson MD

BCEMS Medical Director

SUSPECTED STROKE

SUBJECTIVE	OBJECTIVE	ASSESSMENT
▪ Previous CVA, TIA's ▪ Previous cardiac / vascular surgery ▪ Associated diseases: diabetes, hypertension, hyperlipidemia, CAD. ▪ Atrial fibrillation ▪ Medications (anticoagulants) ▪ History of trauma	▪ Altered mental status ▪ Weakness/ Paralysis ▪ Blindness or other sensory loss ▪ Aphasia/ Dysarthria ▪ Syncope ▪ Vertigo/ Dizziness ▪ Vomiting, headache ▪ Seizures ▪ Change in respiratory pattern ▪ Hypertension/ Hypotension	▪ See ALOC ▪ TIA ▪ Seizure ▪ Hypoglycemia ▪ Stroke (thrombotic, embolic or hemorrhagic) ▪ Tumor ▪ Toxicologic (Alcohol, Drug OD) ▪ Psychologic

TREATMENT GUIDELINES

R-EMR	E-EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). ▪ Administer Oxygen 10-15 L via non rebreather mask (9000). ▪ Prehospital Stroke Scale (A5). If positive and symptoms < 3 hours, transport to nearest Stroke Center. Notify Medical Control as early as possible for "Stroke Alert" patient.	R
▪ Transport to receiving facility, with ALS assist. Assist ALS with Cardiac Monitor and 12-lead EKG (9030) if indicated.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Blood Glucose Analysis (9040); for glucose <60 and awake with patent airway, administer 1 tube Oral Glucose PO/SL.[2] ▪ Reevaluate blood glucose and treat: for glucose <60, and patent IV, administer 25 gm of 50% Dextrose (D50) IV. ▪ For glucose <60 and no IV, give 1 unit (1 mg) Glucagon IM.[2] ▪ Consider Naloxone (IV, IM or IN for AEMT) for decreased respirations and glucose >60.	A
▪ **ALS required for continued ALOC, or evidence for Stroke, MI or Arrhythmia.** ▪ 12-lead EKG; transmit when possible to Medical Control if abnormal. ▪ Complete Reperfusion Checklist (9038) during transport for candidates for thrombolysis. ▪ Also consider ALOC (7000), Hypertension (5002), Seizures (7020) and Overdose/ Toxic Ingestion (8013) Guidelines.	P
▪ ** Call Medical Control ASAP for positive Stroke screen and symptoms < 3 hours.**	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Scene time should be less than 10 minutes for suspected stroke patients. Early activation of Stroke Plan, and notification of Medical Control and receiving Stroke Center is necessary (ER needs time to call in CT tech and resources).
Elevated blood pressure is commonly present with Stroke. Consider treatment if diastolic is > 110 mmHg.
Be alert for airway problems (swallowing difficulty, vomiting and aspiration).
Hypoglycemia may present with localized neurologic deficit, especially in the elderly.
QA 100% of patients presenting within 3 hours of symptom onset with positive Stroke screen.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

SEIZURES

SUBJECTIVE	OBJECTIVE	ASSESSMENT
▪ Reported/ witnessed seizure activity ▪ Previous seizure history ▪ Medical alert tag information ▪ Seizure medications ▪ History of trauma ▪ History of diabetes ▪ History of pregnancy	▪ Decreased mental status ▪ Sleepiness ▪ Incontinence ▪ Observed seizure activity ▪ Evidence of trauma ▪ Unconscious ▪ Grand mal seizures are generalized and associated with loss of consciousness ▪ Focal seizures effect only a part of the body with no loss of consciousness ▪ Jacksonian seizures start focal and become generalized	▪ Head trauma ▪ Tumor ▪ Metabolic, hepatic or renal failure ▪ Hypoxia ▪ Electrolyte abnormality ▪ Drugs, medications, compliance ▪ Infection/fever ▪ Alcohol withdrawl ▪ Eclampsia ▪ Stroke ▪ Hyperthermia, ▪ Hypoglycemia

TREATMENT GUIDELINES

R-EMR	E-EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). Protect patient from further harm. ▪ Airway Management (4000). Consider Spinal Immobilization Procedure (9062). ▪ Oxygen Administration (9000); consider blow-by or 15L non rebreather mask.	R
▪ If patient is actively seizing, transport to closest ALS receiving facility with ALS intercept. ▪ Assist ALS with Cardiac Monitor and 12-lead EKG (9030) if indicated.	E
▪ Blood Glucose Analysis (9040).[2] ▪ For glucose <60 administer 25 gm 50% Dextrose (D50) IV or 1 unit (1 mg) Glucagon IM if IV access is not established yet.[2] ▪ Establish IV with NS, draw labs. **Do not delay transport for IV access.**[2]	A
▪ **ALS indicated for ongoing or recurrent Seizures.** ▪ For active or recurrent seizures administer 0.05 to 0.1 mg/kg Midazolam IV/IN/IM (maximal single dose 2.5 mg); may repeat in 5 min x 2 for ongoing seizures. For patients without IV access, consider IN Mucosal Atomizer Device (MAD) administration with ½ of dose in each nares.	P
▪ ****Contact Medical Control for status epilepticus and further orders. Consider Oral Tracheal Intubation (9011)/ RSI (9013) for recurrent seizures.****	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Status epilepticus is defined as two or more successive seizures without a period of consciousness or recovery.
This is a true emergency requiring rapid airway control, treatment and transport.
Be prepared for airway problems and continued seizures.
Assess possibility of occult trauma and substance abuse.
Be prepared to assist ventilations especially if Midazolam is used.
For any seizure in a pregnant patient, follow the OB/GYN Emergencies Guidelines (7080,7085).
Patients who are sedated or with new onset of seizures are not eligible for Refusal of Treatment.

QA 100% of patients with Status Epilepticus and field Intubations.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

HYPERGLYCEMIA

Management of patients with blood glucose >250 with DKA or HHS

History	Signs and Symptoms	ASSESSMENT
▪ Known diabetic, medic alert tag ▪ Past medical history ▪ Medications ▪ Change in responsiveness/condition ▪ Disorientation ▪ Recent nausea or vomiting ▪ Recent highly abnormal glucose readings ▪ Recent abdominal pain	▪ Decreased mental status or lethargy ▪ Change in baseline mental status ▪ Bizarre behavior ▪ Signs of Hyperglycemia (warm, dry skin; fruity breath; Kussmaul respiration; signs of dehydration) ▪ Polydipsia (thirsty) ▪ Nausea or vomiting, abdominal pain ▪ Glasgow Coma Scale <14	▪ Diabetic Ketoacidosis (DKA) ▪ Hyperosmolar Hyperglycemic state ▪ Beware of additional comorbid conditions such as: ▪ CNS (stroke, tumor, seizure, infection, trauma) ▪ Infection (CNS and other)

TREATMENT GUIDELINES

R-EMR	E-EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000) ▪ Administer Oxygen 10-15 L via non rebreather (9000). ▪ Observe for signs of Respiratory Distress (4002).	R
▪ Pulse Oximetry (9001). ▪ Assist ALS with Cardiac Monitor and 12-lead EKG (9030) if indicated. ▪ Check to see if lungs are clear (absence of Pulmonary Rales). ▪ Transport to receiving facility. ALS intercept unless transport time is less than 5 minutes.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Blood Glucose Analysis (9040)[2] ▪ Administer IV bolus of NS 10 cc/kg. May repeat NS bolus if lungs remain clear.[2]	A
▪ **ALS required for continued ALOC, Hypotension or signs of Respiratory Failure.** ▪ Repeat patient assessment. ▪ Assess for adequacy of ventilation and need to protect airway/possible endotracheal intubation (9011-9013). ▪ For patients over 35, perform 12-lead EKG and transmit when possible to Medical Control.	P
▪ ** Call Medical Control for unusual presentation or failure to respond to appropriate care. May repeat NS bolus up to a maximum of 40 cc/kg if lungs remain clear. **.	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Hyperglycemic emergencies include both diabetic Ketoacidosis (DKA) and Hyperosmolar Hyperglycemic State (HHS), also known as Hyperosmolar Hyperglycemic Non-Ketotic Coma (HHNC).
It is estimated that 2-8% of all hospital admissions are for treatment of DKA.
Mortality for DKA is between 2-10%. Older patients have a greater risk of death.
Management of hyperglycemia is centered around treatment of severe dehydration and support of vital functions such as respiration and ventilation.
QA: 100% of patients with hyperglycemia requiring field intubations.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

HYPOGLYCEMIA

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Known diabetic, medic alert tag ▪ Past medical history ▪ Medications ▪ Change in responsiveness/condition ▪ Disorientation	▪ Decreased mental status or lethargy ▪ Change in baseline mental status ▪ Bizarre behavior ▪ Hypoglycemia (cool, diaphoretic skin) ▪ Hyperglycemia (warm, dry skin; fruity breath; Kussmaul respiration; signs of dehydration) ▪ Irritability ▪ Lowered gross motor or deep tendon reflexes ▪ Glasgow Coma Scale <14	▪ CNS (stroke, tumor, seizure, infection, trauma) ▪ Hypothermia ▪ Infection (CNS and other) ▪ Thyroid (hyper / hypo) ▪ Shock: septic, metabolic, trauma ▪ Diabetes (hyper/ hypoglycemia) ▪ Toxicologic or ingestion ▪ Acidosis / Alkalosis ▪ Pulmonary (Hypoxia) ▪ Electrolyte abnormality ▪ Psychiatric disorder

TREATMENT GUIDELINES

R-EMR	E-EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). ▪ Oxygen Administration (9000) 10-15 L via non-rebreather (NRB). ▪ Glascow Coma Scale (A2).	R
▪ Consider ALS assist with cardiac monitor and 12-lead EKG (9030) if indicated. ▪ Transport to receiving facility, with ALS intercept.	E
▪ Blood Glucose Analysis (9040); for glucose <60 and awake with patent airway, administer 1 tube Oral Glucose PO/SL (buccal).[2] ▪ Reevaluate blood glucose; may repeat Oral Glucose if ALOC and or glucose <60 remain.[2] ▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ If Paramedic is not on scene or expected within 10 minutes and lungs are clear, consider IV D10W, 5 cc/kg, and check for breath sounds after giving bolus.[2] ▪ For glucose <60 and patent IV, administer 12.5-25 gm of 50% Dextrose IV. ▪ For glucose <60 and no IV, administer 1unit (1 mg) Glucagon IM (can also be given IV).[2] ▪ Reevaluate blood glucose and repeat as indicated for glucose <60 and ALOC.	A
▪ **ALS required for continued ALOC, long transport, oral diabetic medication.** ▪ Consider other causes of ALOC if patient not responding to above measures.	P
▪ ** Call Medical Control for Stroke, or deterioration despite appropriate care**.	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Be especially cautious if the patient is on oral diabetic medication. It is safer to assume Hypoglycemia than Hyperglycemia if doubt exists. Recheck blood glucose after Dextrose or Glucagon.
Do not let alcohol confuse the clinical picture. Alcoholics frequently develop Hypoglycemia and may have unrecognized injuries. Sublingual or buccal administration may provide the fastest route to systemic effect.
Low glucose (< 60), normal glucose (60 - 120), high glucose (120), very high glucose (> 250).
Consider Restraints if necessary for patient's and/or personnel's protection per the restraint procedure. Use of D50 might be reserved for the more serious hypoglycemic presentations.
QA 100% review of Hypoglycemia treated with D5W (observing efficacy of this strategy).

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

FEVER

Patients Presenting with Fever as the Main Complaint

HISTORY	SIGNS AND SYMPTOMS	ASSESSMENT
▪ Age ▪ Duration of fever ▪ Severity of fever ▪ Past medical history ▪ Medications and Allergies ▪ Immunocompromised (transplant, HIV, diabetes, cancer) ▪ Environmental exposure ▪ Last acetaminophen or Ibuprofen	▪ Warm ▪ Flushed ▪ Diaphoretic ▪ Chills or rigors ▪ Malaise, cough, chest pain, headache, dysuria, abdominal pain, mental status changes, rash	▪ Infections/ Sepsis ▪ Cancer/ Tumors/ Lymphomas ▪ Medications or Drug reaction ▪ Connective tissue disease (Arthritis, Vasculitis, Lupus) ▪ Hyperthyroid ▪ Heat Stroke ▪ Meningitis

TREATMENT GUIDELINES

R-EMR	E-EMT	A-EMTA	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). ▪ Oxygen Administration (9000). ▪ Infection Control (1031).	R
▪ Orthostatic blood pressure measurement. ▪ Temperature Measurement (9047). Pulse Oximetry (9001). ▪ Assist ALS with Cardiac Monitor and 12-lead EKG (9030) if indicated. ▪ Transport to receiving facility as indicated with ALS intercept if patient is severely ill.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ If orthostatic, administer bolus of NS, 10-20 cc/kg IV.[2]	A
▪ **ALS required for Fever >102 degrees if associated with ALOC, Stroke, Respiratory Distress, Hypotension or Shock.** ▪ For temperature >100.4 °F, consider administration of Ibuprofen 10 mg/kg PO, max 800 mg (age >6 months), or Acetaminophen 15 mg/kg PO/PR, max 1000 mg (age >3 mos). ▪ Go to appropriate Guidelines for other specific complaints.	P
▪ ** Call Medical Control for Fever in the presence of any unusual presentation.	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Patients with a history of liver disease or failure should not receive acetaminophen.
Rehydration with fluids increases the patient's ability to sweat and improve heat loss. All patients should have drug allergies documented prior to administration of pain medications. NSAID's should not be used in the setting of environmental heat emergencies. Do not give aspirin to a child.
Droplet Precautions: include standard Infection Control Guidelines plus a surgical mask for providers who accompany patients in the back of the ambulance and a surgical mask or NRB O2 mask for the patient. This level of precaution should be used when influenza, meningitis, mumps, streptococcal pharyngitis, and other illnesses spread via large particle droplets are suspected. Patients with potentially infectious rash should also be treated with Droplet Precautions.
Airborne Precautions: Include standard Infection Control Guidelines plus a gown, change of gloves after each patient contact and strict handwashing precautions. This level of precaution is used when multi-drug resistant organisms such as MRSA, scabies, Zoster (shingles), or other illnesses spread by contact are suspected.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

NAUSEA, VOMITING AND DIARRHEA

Patient Complaint of Nausea, Vomiting or Diarrhea in the Absence of Trauma

History	Signs and Symptoms	ASSESSMENT
▪ Age ▪ Past medical/ surgical history ▪ Medications ▪ Onset and duration of symptoms ▪ Palliation/ Provocation ▪ Contacts with other sick persons ▪ Travel history ▪ Bloody emesis or diarrhea ▪ Fever ▪ Last meal eaten, Last bowel movement ▪ Menstrual history / possible pregnancy	▪ Pain (location/migration, radiation) ▪ Abdominal tenderness ▪ Nausea, vomiting ▪ Diarrhea, bloody stool ▪ Dysuria, ▪ Abdominal distention ▪ Constipation ▪ Anorexia ▪ Pregnancy ▪ Associated symptoms: Fever, headache, weakness, malaise, myalgias, cough, mental status changes, rash	▪ CNS (Increased cranial pressure, headache, stroke, CNS lesions, trauma, hemorrhage, vestibular) ▪ Drugs (NSAIDs, antibiotics, narcotics, chemotherapy) ▪ Myocardial Infarction ▪ Peptic ulcer disease/ Gastritis ▪ Gallbladder-Cholecystitis ▪ Pancreatitis, Appendicitis ▪ Kidney stones, Diverticulitis ▪ Bladder or Prostate disorder ▪ Pelvic (PID, Normal or Ectopic Pregnancy, ovarian cyst) ▪ Bowel obstruction, Renal disease ▪ Gastroenteritis (Infectious) ▪ Diabetic ketoacidosis

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). Infection Control Guidelines (1031). ▪ Oxygen Administration as indicated (9000). Temperature Measurement (9047). ▪ Do not give patient anything by mouth.	R
▪ Consider Orthostatic Blood Pressure Measurement. ▪ Assist ALS with cardiac Monitor or 12-lead EKG (9030) if indicated. ▪ Transport to receiving facility as indicated with ALS intercept if patient is severely ill. ▪ Consider Ondansetron given orally 4-8mg PO (every 8 hours) for ongoing nausea.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Consider blood glucose analysis (9040).[2] ▪ If orthostatic, administer bolus of NS, 10-20 cc/kg IV. Check breath sounds after bolus.[2]	A
▪ **ALS required for Hypotension, Gravid patient with other signs or symptoms, or possible Myocardial Infarction.** ▪ Gentle palpation of abdomen for masses, pulsation, rigidity, guarding, and listen for bowel sounds as part of more detailed examination. ▪ Consider possible Pregnancy or Ectopic Pregnancy. ▪ Consider 12-lead EKG if Nausea/Vomiting could be of cardiac origin (5000). ▪ Consider Promethazine 6.25- 25 mg IV/IM, or Odansetron 4 mg IV for nausea/vomiting. Ondansetron 4-mg may also be given IV, IM, or PO.	P
▪ ** Call Medical Control for severe Hypotension, Suspected Ectopic Pregnancy and unstable patients.**	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Document the mental status and vital signs prior to administration of any anti-emetics.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

ABDOMINAL PAIN

Patient Complaint of Abdominal Pain in the Absence of Trauma

History	Signs and Symptoms	ASSESSMENT
▪ Age ▪ Past medical/ surgical history ▪ Medications ▪ Onset ▪ Palliation/ Provocation ▪ Quality (crampy, constant, sharp, dull) ▪ Region/Radiation/Referred Pain ▪ Severity (1-10) ▪ Time (duration, repetition) ▪ Fever ▪ Last meal eaten, Last bowel movement ▪ Menstrual history / possible pregnancy	▪ Pain (location/migration) ▪ Tenderness ▪ Nausea, vomiting ▪ Diarrhea, bloody stool ▪ Dysuria ▪ Constipation ▪ Vaginal bleeding or discharge ▪ Pregnancy ▪ Associated symptoms: Fever, headache, weakness, malaise, myalgias, cough, mental status changes, rash	▪ Pneumonia, Pulmonary embolus ▪ Liver (hepatitis, CHF) ▪ Peptic ulcer disease/ Gastritis ▪ Gallbladder/ Cholecystitis ▪ Myocardial infarction ▪ Pancreatitis, Appendicitis ▪ Kidney stones, Diverticulitis ▪ Abdominal aneurysm ▪ Bladder or prostate disorder ▪ Pelvic (PID, Ectopic Pregnancy, ovarian cyst) ▪ Spleen enlargement ▪ Bowel obstruction ▪ Gastroenteritis (Infectious)

TREATMENT GUIDELINES

R-EMR	E-EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). ▪ Infection Control (1031). ▪ Oxygen Administration as indicated (9000). Temperature measurement (9047). ▪ Do not give patient anything by mouth.	R
▪ Consider Orthostatic Blood Pressure Measurement. ▪ Transport to receiving facility as indicated with ALS intercept if patient is severely ill.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ If orthostatic, administer bolus of NS, 20 cc/kg. Check breath sounds following bolus.[2]	A
▪ **ALS required for Hypotension, gravid patient with other signs or symptoms, possible cardiac disease.** ▪ Gentle palpation of abdomen for masses, pulsation, rigidity, guarding, and listen for bowel sounds. ▪ Consider Administration of Odansetron 4mg IV for nausea and vomiting. ▪ Go to appropriate Guidelines for other specific complaints.	P
▪ ** Call Medical Control for severe Hypotension, suspected ectopic pregnancy and unstable vital signs. **	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Document the mental status and vital signs prior to administration of anti-emetics.
Abdominal pain in women of childbearing age should be treated as an ectopic pregnancy until proven otherwise.
Antacids should be avoided in patients with renal disease.
The diagnosis of aortic aneurysm or cardiac disease should be considered in patients over 50.
Appendicitis may present with vague, peri-umbilical pain which migrates to the RLQ over time.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

PREECLAMPSIA AND ECLAMPSIA

Prehospital Management of Preeclampsia or Eclampsia

History	Signs and Symptoms	ASSESSMENT
▪ Due date, prenatal care ▪ Sensation of fetal activity ▪ Past medical and delivery history ▪ Medications, Allergies ▪ Gravida/Para Status ▪ High Risk pregnancy ▪ Shortness of breath	▪ Seizures (type and length) ▪ Hypertension ▪ Severe Headache, photophobia ▪ Visual changes ▪ Edema of hands and face ▪ Hyperreflexia ▪ Pulmonary edema ▪ Tachycardia, dysrhythmias	▪ Preeclampsia/ Eclampsia

TREATMENT GUIDELINES

R-EMR	E-EMT	A-EMTA	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). Oxygen Administration (9000). ▪ Position patient in left lateral recumbent position. ▪ Create a low stimulus environment.	R
▪ Pulse Oximetry (9001). ▪ Transport to appropriate facility with ALS intercept.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ If patient is stable, run IV at KVO.[2] ▪ Monitor for Respiratory Distress (4002). ▪ Blood Glucose Analysis (9040) if patient has had seizures or ALOC (7000).[2] ▪ For glucose <60 and patent IV, administer 12.5-25 gm of 50% Dextrose IV. ▪ For glucose <60 and no IV, administer 1unit (1 mg) Glucagon IM.	A
▪ **ALS required for signs of preeclampsia or eclampsia.** ▪ Repeat patient assessment. ▪ Administer Magnesium Sulfate IV 4 grams over 15 minutes (loading dose) then further doses only per Medical Control. ▪ Maintenance infusion: 5 grams/250 cc and run at 100 cc/hr (2 grams/hr). ▪ For active or recurrent seizures administer 0.05 to 0.1 mg/kg Midazolam IV/IN/IM (maximal single dose 2.5 mg; may repeat q 5 min x 2 for ongoing seizures.	P
▪ ** Call Medical Control for all eclampsia patients**.	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

PREECLAMPSIA is characterized by maternal hypertension, visual disturbances, headache and edema.
ECLAMPSIA occurs when a woman with Preeclampsia has a seizure.
Hypertension is defined as a BP greater than 140 systolic or greater than 90 diastolic, or a relative increase of 30 systolic and 20 diastolic from the pre-pregnancy blood pressure.
Magnesium may cause hypotension and decreased respiratory drive; use with caution. Do not give faster than 1 gram/minute.
QA: 100% review of patients requiring IV Magnesium Sulfate.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

CHILDBIRTH/ IMMINENT DELIVERY

Prehospital Management of Imminent Delivery

History	Signs and Symptoms	ASSESSMENT
▪ Due date ▪ Time contractions started, frequency ▪ Rupture of membranes ▪ Time and amount of vaginal bleeding ▪ Sensation of fetal activity ▪ Past medical and delivery history ▪ Medications ▪ Gravida/Para Status ▪ High Risk pregnancy	▪ Spasmodic pain ▪ Vaginal discharge or bleeding ▪ Crowning or urge to push ▪ Meconium	▪ Abnormal presentation Buttock Foot Hand ▪ Prolapsed cord ▪ Placenta Previa ▪ Placenta Abruptio

TREATMENT GUIDELINES

R-EMR	E-EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). ▪ Position patient in left lateral position. ▪ For Hypertension, Complicated Delivery or Vaginal Bleeding, go to Preeclampsia/Eclampsia (7080), and or Obstetrical Emergencies (7085) Guidelines.	R
▪ Inspect perineum for crowning, or bleeding. ▪ Observe for prolapsed cord, and push up on head if required. ▪ Document frequency and duration of contractions. ▪ If no crowning, transport, and monitor. ▪ Observe and assess for significant blood loss, treat for shock.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ If crowning and >36 weeks gestation, Childbirth Procedure (9050). ▪ If crowning and <36 weeks gestation, abnormal presentation, severe bleeding or multiple gestation, transport code and call for ALS intercept.	A
▪ **ALS required for signs of Obstetrical Emergency** ▪ Repeat patient assessment; assist with childbirth procedure (9050). ▪ Newly Born Guidelines (7083).	P
▪ ** Call Medical Control for severe Vaginal Bleeding, abnormal presentation, severe Hypertension, ALOC or Seizures**.	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Document all times (delivery, contraction frequency and length).
If maternal seizures occur, refer to Preeclampsia/ Eclampsia Guidelines 7085.
After delivery, massaging the uterus (lower abdomen) will promote uterine contraction and help to control post-partum bleeding.
Some perineal bleeding is normal with any childbirth. Large quantities of blood or free bleeding are abnormal.
Meconium staining is evidenced by amniotic fluid that is greenish or brownish-yellow rather than clear. It may be foul in odor. It is a sign of possible fetal distress during labor.
Record APGAR score (A1) at 1 minute and 5 minutes after birth.
QA: 100% of patients with field Childbirth.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

CARE OF THE NEWLY BORN

Prehospital Management of a Newborn Infant

History	Signs and Symptoms	ASSESSMENT
▪ Due date, gestational age ▪ Multiple gestation ▪ Meconium ▪ Difficulties with delivery ▪ Congenital disease ▪ Medications (maternal) ▪ Maternal risk factors (smoking, substance abuse)	▪ Respiratory distress ▪ Peripheral cyanosis or mottling ▪ Central cyanosis (abnormal) ▪ Altered level of responsiveness ▪ Bradycardia	▪ Airway failure (secretions, respiratory drive) ▪ Infection ▪ Maternal medication effect ▪ Hypovolemia ▪ Hypoglycemia ▪ Congenital heart disease. ▪ Hypothermia

TREATMENT GUIDELINES

R-EMR	E-EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact for mother and child (2000). ▪ Dry infant and keep warm. Remove any wet linens from around the infant. ▪ Use bulb syringe to suction mouth and nose. ▪ Position infant so that the neck is slightly extended and down to facilitate drainage of secretions. ▪ Cover the head; for stable infants, place the baby with the mother with skin to skin contact.	R
▪ Stimulate infant and note APGAR scores (A1) at 1 and 5 minutes. ▪ Assess heart rate and respirations. ▪ For bradycardia (HR <100) use BVM for 30 secs at 40-60 breaths/minute with 100% FIO2. ▪ For HR <60, Peds Airway Protocol and commence CPR (3 compressions to 1 ventilation) ▪ Reassess and transport to receiving facility. ALS intercept for respiratory failure.	E
▪ If amniotic fluid was stained with meconium, visualize hypopharynx and perform deep suction until free of meconium.[2] ▪ For HR 60-100, go to Peds Airway Protocol. IV/IO protocol for ongoing HR <100.[2] ▪ For HR >100, monitor and reassess 5 minute APGAR and continue Oxygen if required. ▪ Consider Administration of D10 (if available - see below for dilution) for hypoglycemia.	A
▪ **ALS required for signs of distress in the Newborn.** ▪ IV/IO protocol for ongoing HR <100. ▪ Epinephrine .01 mg/kg IV (0.1 ml/kg epinephrine 1/10,000) for ongoing distress q 3-5 mins.	P
▪ ** Call Medical Control for Respiratory Failure and bradycardia in the newly born failing to respond to initial BVM. Consider Naloxone for ongoing respiratory suppression and bradycardia.**	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Record APGAR score (A1) at 1 minute and 5 minutes after birth. Consider hypoglycemia in an infant.
CPR in infants is 120 compressions/minute with a 3:1 compression to ventilation ratio.
It is extremely important to keep the infant warm. Breast feeding will stimulate uterine contraction.
Maternal sedation or narcotics will sedate infant (Naloxone is effective but may precipitate seizures).
D10 = D50 diluted (1 cc of D50 plus 4 cc of NS/10cc of D50 plus 40 cc NS).
QA 100% of all infants with prehospital Respiratory Failure.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

OBSTETRICAL EMERGENCY

Prehospital Management of Complicated Deliveries

History	Signs and Symptoms	ASSESSMENT
▪ Due date ▪ Time contractions started, frequency ▪ Rupture of membranes ▪ Time and amount of vaginal bleeding ▪ Sensation of fetal activity ▪ Past medical and delivery history ▪ Medications ▪ Gravida/Para Status ▪ High Risk pregnancy	▪ Vaginal bleeding ▪ Abdominal pain ▪ Hypertension ▪ Abnormal fetal presentation ▪ Prolapsed cord, or around neck ▪ Multiple births ▪ Post partum hemorrhage	▪ Abnormal presentation Buttock Foot Hand ▪ Prolapsed cord ▪ Placenta Previa ▪ Placenta Abruptio

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). ▪ Position patient in left lateral position. Monitor contractions and fetal movement. ▪ For Hypertension (5002), Preeclampsia or Eclampsia (7080), go to appropriate Guidelines. ▪ Oxygen Administration (9000).	R
▪ Inspect perineum for crowning, prolapsed cord or bleeding. ▪ Pulse Oximetry (9001) for the mother. Transport to receiving facility. ▪ **For Breech Deliveries:** Allow delivery to progress spontaneously; allow mother to push; do not pull baby. Support baby's body as it's delivered. If head delivers spontaneously, provide care in accordance with Childbirth (9050) and Newly Born (7083) guidelines. If body is delivered and not the head within 5 minutes, insert gloved hand into vagina and create an airway for the infant. **DO NOT REMOVE HAND DURING TRANSPORT**. ▪ **For Limb Presentation:** Place mother in a knee-chest position. Do not pull on baby. Transport emergently with ALS intercept, and consider Air Medical Transport (1017) if it would be faster and feasible. ▪ **For Prolapsed Cord:** Place mother in a knee-chest position. Encourage mother to pant during contractions rather than push. Insert gloved hand into the vagina and gently raise the infant's head or presenting part off of the cord. **DO NOT REMOVE HAND DURING TRANSPORT**. Observe the cord for pulsations. Keep cord warm and moist. Transport emergently with ALS intercept, and consider Air Medical Transport. ▪ **For Cord Wrapped Around the Infant's Neck During Delivery:** Encourage mother to pant during contractions rather than push. Gently attempt to loosen cord. With two fingers behind infant's neck, gently attempt to slip cord over infant's upper shoulder and head. If unsuccessful, place a clamp on the cord and place a second clamp approximately 1-2" away from first clamp; cut the cord in between taking care not to cause injury to the infant. Complete the delivery (9050).	E
▪ **For Multiple Births:** Always be alert to the possibility of multiple births. If there appears to be a delay between the first and the next infant, start transport. Be alert that the position of the second infant may be different from the first infant. There can be one or more placentas.	

Ronald Jackson MD

BCEMS Medical Director

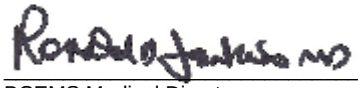
▪ **For Excessive Hemorrhage During Delivery:** ▪ Treat mother for Shock and Hypotension guidelines (5003). Monitor vitals every 3-5 minutes. Pulse Oximetry (9001) for the mother. Transport emergently with ALS intercept, and use Air Medical Transport if it would be faster. ▪ **For Excessive Hemorrhage Following Delivery:** Massage mother's uterus by massaging lower abdomen firmly. Put infant to mother's breast and encourage infant to breast feed (stimulates uterine contraction). Treat mother for Shock and Hypotension guidelines (5003). Monitor vitals every 3-5 minutes. Transport emergently with ALS intercept, and use Air Medical Transport if it would be faster.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ Observe and assess for significant blood loss. ▪ Administer IV NS 10-20 cc/kg for significant blood loss and Hypotension (5003).[2]	A
▪ **ALS required for signs of Obstetrical Emergency** ▪ Observe and assess for significant blood loss, treat for shock. ▪ Newly Born (7083) Guidelines.	P
▪ ****** Call Medical Control for any Complicated Delivery to determine receiving hospital and possible need for Air Medical Transport.**	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Ask patient to quantify bleeding- number pf pads used per hour.
Any pregnant patient involved in a MVC should be seen immediately by a physician for evaluation and fetal monitoring.
After delivery, massaging the uterus (lower abdomen) will promote uterine contraction and help to control post-partum bleeding.
A prolapsed cord is a serious medical emergency and endangers the life of the unborn fetus.
Placenta previa is a complication of pregnancy in which the placenta grows in the lowest part of the uterus and covers all or part of the opening to the cervix. This often causes sudden, painless vaginal bleeding, although sometimes with cramping or onset of labor.
Placenta abruptio is separation of the placenta from the site of uterine implantation before delivery of the fetus. This may cause abdominal and back pain and vaginal bleeding that is life threatening to both mother and fetus.
Record APGAR score (A1) at 1 minute and 5 minutes after birth.

QA 100% of patients requiring Air Medical Transport for Complicated Delivery.



BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

Section 8000

Behavioral and Toxicologic Emergencies

BEHAVIORAL EMERGENCY

Prehospital Management of Behavioral Emergency

History	Signs and Symptoms	ASSESSMENT
▪ Situational crisis ▪ Psychiatric illness ▪ Medications/ Allergies ▪ Injury to self/ threats to others ▪ Medic Alert tag ▪ Substance abuse/ Overdose ▪ Diabetes	▪ Anxiety, agitation, confusion ▪ Affect change, hallucinations ▪ Delusional thoughts, bizarre behavior ▪ Combative or violent behavior ▪ Expression of suicidal/ homicidal thoughts	▪ See ALOC differential ▪ Alcohol intoxication ▪ Toxin/ Substance abuse ▪ Medication affect/ Overdose ▪ Withdrawal symptoms ▪ Depression ▪ Bipolar (Manic depressive) ▪ Schizophrenia, anxiety disorders

TREATMENT GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level of providers are responsible for lower level treatments*****

▪ Initial Patient Contact (2000). Scene Safety (1030). ▪ Remove patient from stressful environment. Use verbal calming techniques (reassurance, calming behavior, establish rapport). ▪ Glasgow Coma Scale (A2) on all patients. ▪ Oxygen Administration (9000) as needed.	R
▪ Consider Possible Head Injury (6010), ALOC (7000) or Overdose (8013) Guidelines. ▪ Consider Patient Restraint procedures (1036). ▪ Transport to receiving facility, with ALS intercept if sedation required.	E
▪ Establish IV with NS, draw labs if Overdose suspected or need for sedation.[2] ▪ Blood Glucose measurement (9040).[2] ▪ **Do not delay transport for IV access.**	A
▪ **ALS required for Overdose patients or need for IV sedation.** ▪ Consider administration of Midazolam 0.05-0.1 mg/kg IV (maximal single dose of 2.5 mg). ▪ If IV access is unobtainable, consider administration of Ketamine 5 mg/kg IM.	P
▪ ** Call Medical Control for Patient Refusal (1050), once Physical Restraints (9046) are placed or to transport the patient against his/her will.**	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Pearls:

Safety of the provider should be considered first.
Be sure to consider possible trauma or medical causes for behavior changes (head injury, hypoglycemia, overdose, substance abuse, hypoxia etc).
Do not irritate patient with a prolonged exam.
Do not overlook the possibility of domestic violence or child abuse.
If patient with agitated delirium suffers cardiac arrest, consider a fluid bolus and sodium bicarbonate early.
All patients who receive with physical or chemical restraint must be continuously observed by EMS personnel until delivered to a facility able to take appropriate responsibility for this task.
Any patient who is handcuffed or restrained by Law Enforcement and transported by EMS must be accompanied by Law Enforcement in the ambulance.
Do not position or transport any restrained patient in such a way that could impact the patient's respiratory or circulatory status (i.e. no prone restraints or "hog tying" under any circumstance).
QA 100% of patients with Cardiac Arrest during Restraint.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

OVERDOSE/ TOXIC INGESTION

Prehospital Management of Acute Overdose or Toxic Ingestion

History	Signs and Symptoms	ASSESSMENT
▪ Ingestion or suspected ingestion of a potentially toxic substance ▪ Substance ingested, route, quantity ▪ Time of ingestion ▪ Reason (suicidal, accidental, criminal) ▪ Available medications in home ▪ Past medical history ▪ Medications/ Allergies	▪ Mental status changes ▪ Affect change, hallucinations ▪ Hypotension/ Hypertension ▪ Decreased respiratory rate ▪ Tachycardia/ Dysrhythmias ▪ Seizures	▪ Triclyclic antidepressants (TCAs) ▪ Alcohol intoxication ▪ Aspirin, acetaminophen (Tylenol) ▪ Depressants/ Stimulants ▪ Anticholinergics ▪ Cardiac medications ▪ Solvents, Alcohols, Cleaning fluid ▪ Insecticides (organophosphates)

TREATMENT GUIDELINES

R-EMR	E-EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level of providers are responsible for lower level treatments

▪ Initial Patient Contact (2000). Scene Safety (1030). Glasgow Coma Scale (A2). ▪ Airway Management (4000) and Oxygen Administration (9000) as needed. ▪ Contact Poison Control Center (1 800 222-1222).	R
▪ Assist ALS with cardiac monitor and 12-lead EKG (9030) if indicated. ▪ Consider oral charcoal, 25 gm PO, if patient is alert after notifying Medical Control. ▪ Transport to receiving facility, with ALS intercept, and Patient Restraint (1036) if required.	E
▪ Establish IV with NS, draw labs; **do not delay transport for IV access.**[2] ▪ For respiratory depression, consider Naloxone[1,2,3] IM, IN (mucosal atomizer device).	A
▪ **ALS required for Overdose Patients.** ▪ 12-lead EKG; transmit when possible to Medical Control. ▪ Consider TCA ingestion. Administer Bicarbonate for tachycardia or QRS widening. ▪ For respiratory depression, consider Naloxone[1,2,3] IV, IM, SQ, or IN (mucosal atomizer). ▪ For organophosphate ingestion, use Nerve Agent Antidote Kits if available. Consider atropine 0.5 to 2 mg IV, Pralidoxime 600 mg IV. ▪ Consider Hypotension (5003), Seizures (7020) or Arrhythmia (5020-29) Guidelines.	P
▪ ** Call Medical Control for all severe Toxic Ingestions, and prior to administration of anything, including Oral Charcoal. Medical Control will contact Poison Control Center (1 800 222-1222) if not already called, and EMS must follow Poison Control recommendations unless ordered otherwise by Medical Control.**	M

[1]EMR, [2]EMT and [3]AEMT providers may perform these procedures if credentialed with the appropriate OM.

Do not rely on patient history of ingestion, especially in suicide attempts. Make sure patient is not carrying other medications or weapons. Bring bottles, contents and emesis to ED.
TCAs: Seizures, arrhythmias, hypotension and ALOC or coma. Be aware of rapid progression to death.
Acetaminophen: Initially no symptoms or nausea/vomiting. Untreated, it causes irreversible liver failure.
Aspirin: Abdominal pain and vomiting, then tachypnea and ALOC. Renal, liver or cerebral injury may occur.
Depressants: decreased HR, BP, temperature, respirations, non-specific pupils.
Stimulants: Increased HR, BP, temperature, dilated pupils, seizures.
Anticholinergics: increased HR, temperature, dilated pupils, mental status changes.
Solvents: Nausea, vomiting, coughing, mental status changes.
Insecticides: Increased or decreased HR, increased secretions, nausea, vomiting, diarrhea, pinpoint pupils.
Nerve Agent Antidote Kits: contain 2.1 mg of atropine and 600 mg Pralidoxime in autoinjector

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

Section 9000

PROCEDURES

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

SECTION 9000
PROCEDURES AND SKILLS

AIRWAY 9000-9019

OXYGEN ADMINISTRATION

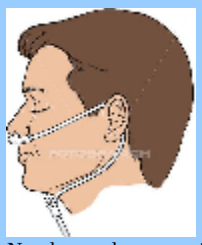
Clinical Indications

- Oxygen Administration procedures for patients with shortness of breath, chest pain, arrhythmia, allergic reaction or anaphylaxis, trauma, hypotension or other serious illness where hypoxemia might be expected.

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

▪ Any patient who has difficulty of breathing should be administered oxygen. ▪ Patients with mild respiratory distress (and respiratory rate < 25 per minute, and no use of accessory muscles of respiration) may be given oxygen by nasal cannula at 4-6 LPM. Alternatively a simple mask may be used to deliver 40-60% oxygen when at 8-10 LPM.      Nasal cannula simple mask non-rebreather mask bag-valve-mask oropharyngeal airway ▪ Patients with moderate respiratory distress with or without cyanosis, and with or without use of accessory muscles while breathing, should be given oxygen by non-rebreather mask at 10-15 LPM. Liter flow should be enough to maintain inflation of the reservoir with oxygen. If hypoventilation is present, utilize the bag-valve-mask technique. ▪ Infants and newborns should have oxygen by the blow-by method. ▪ Patients with severe respiratory distress should be assisted with ventilations by use of a bag-valve-mask with reservoir and supplemental oxygen. An oropharyngeal or nasopharyngeal airway should be inserted if tolerated. Oxygen should be set to 15 LPM. ▪ Normal oxygen saturation (SaO_2) values are never used to withhold oxygen therapy. Do not withhold oxygen while determining the SaO_2 reading.	R
▪ Pulse Oximetry (9001) should be utilized on all patients at risk for hypoxemia.	E
▪ Patients with hypoventilation and respiratory failure should be considered for advanced airways (BIAD-9007)[2].	A
▪ Patients with ongoing hypoventilation and respiratory failure should be considered for intubation (9011-9013). Minimize periods of apnea during intubation attempts, particularly during cardiac arrest.	P

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Do not withhold oxygen for a diagnosis of COPD. Pediatric patients with an oxygen $SaO_2 \leq$ 93% have significant hypoxemia and oxygen must be administered.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

PULSE OXIMETRY

Clinical Indications

- Pulse Oximetry is utilized in all patients with suspected hypoxemia and receiving oxygen therapy.

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

- Apply probe to patient's finger or any other digit as recommended by the device manufacturer.
- Allow device to register saturation level.
- Record time and initial saturation percent on room air if possible on the PCR.
- Verify pulse rate on device with actual pulse of patient.
- Monitor critical patients continuously until arrival at the hospital. If recording a one-time reading, monitor patients for a few minutes as oxygen saturation can vary.
- Document percent of oxygen saturation every time vital signs are recorded and in response to therapy to correct hypoxemia.
- Normal saturation is ≥ 95%. Below 93%, suspect respiratory compromise.
- Use the pulse oximeter as a tool; be sure to treat the patient, not the data.
- Pulse Oximetry should never be used to withhold oxygen from a patient in respiratory distress or when it is the standard of care to apply oxygen despite a good SaO_2 reading, such as with chest pain.
- Factors that might reduce the reliability of the pulse oximeter reading include:
  - poor peripheral circulation (blood volume, hypotension, hypothermia, acidosis)
  - excessive pulse oximeter sensor motion
  - fingernail polish (acetone pad may remove polish)
  - carbon monoxide bound to hemoglobin (methemoglobin)
  - irregular rhythms (atrial fibrillation, supraventricular tachycardia, etc.)
  - jaundice
  - placement of BP cuff on same extremity as pulse oximeter probe

E

CAPNOGRAPHY

Clinical Indications

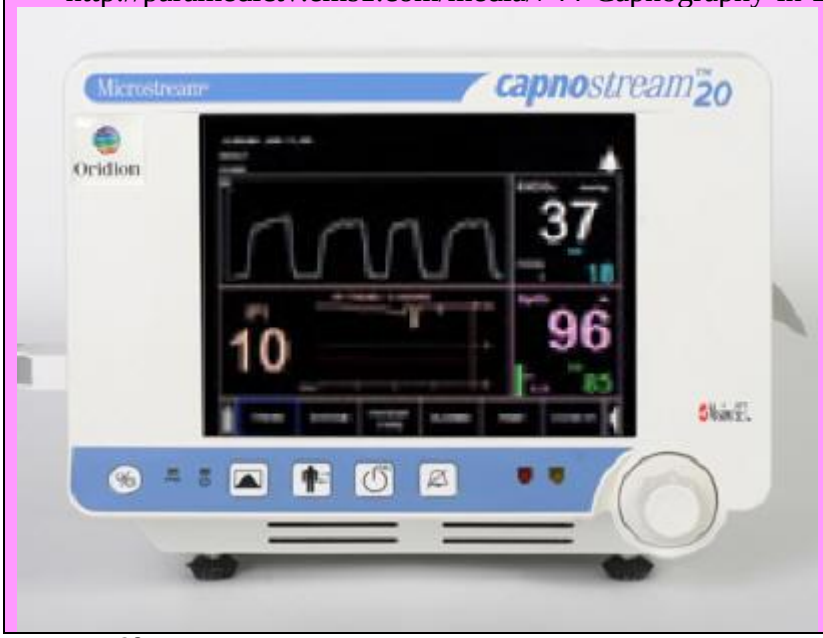
- Capnography should be used with all invasive airway procedures including endotracheal, nasotracheal, cricothyrotomy and Blind Insertion Airway Devices (BIAD) when the equipment is available to the providers involved. Capnography is a reliable and immediate indicator of adequacy of ventilation and perfusion. It may be useful in patients with cardiac disease, head injury and pulmonary disease in the absence of an invasive airway requirement.

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

- Attach Capnography sensor to the BIAD, endotracheal tube, or oxygen delivery device.
- Note CO_2 level and waveform changes. These will be documented on each Respiratory Failure (4000), Cardiac Arrest (3000), or Respiratory Distress (4002) patient.
- The capnometer shall remain in place with the airway and be monitored throughout the prehospital care and transport.
- Any loss of CO_2 detection or waveform indicates an airway problem and should be documented, investigated and corrected.
- The capnogram should be monitored as procedures are performed to verify or correct any airway problem.
- Document the procedure and results on the PCR as well as the online Airway Evaluation.
- The following is a video demonstrating and discussing Capnography: http://paramedictv.ems1.com/media/744-Capnography-in-Emergency-Care/



P[23]

[2,3]EMT and AEMT providers may perform these procedures if credentialed with the appropriate OM.

ETCO2 35-45 mm Hg is the normal value for Capnography. However, some experts say 30-43 mm Hg can be considered normal.

QA Parameters: 100% of patients requiring endotracheal intubation will utilize Capnography for confirmation of tube placement.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

CPAP

Clinical Indications

- Patients with inadequate ventilation, generally not associated with asthma.
- Patients may have pulmonary edema, pneumonia, or COPD.

PROCEDURE GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

- Ensure adequate oxygen supply to ventilation device.
- Explain the procedure to the patient. Currently we are using the O2-MAX CPAP System.
- Place the delivery mask over the mouth and nose. Oxygen should be connected to a DISS Oxygen port at full manifold pressure which delivers 5-10 cm H_2O of PEEP. The patient may help hold it in place initially.
- Secure the mask with the provided straps until minimal air leak occurs. Make sure the patient is comfortable and help them to relax. Ask the patient to breath with the CPAP and reassure that it will be helpful to their breathing.
- To adjust the Positive End Expiratory Pressure (PEEP) on the CPAP device, turn the adjustment knob to cm H2O of either 5,7.5 or 10 cm H_2O of PEEP. Recommend titration slowly beginning at 5 cm H_2O of pressure as follows:
  - 5-10 cm H_2O for Pulmonary Edema (5001), Near Drowning (6060), aspiration or Pneumonia.
  - 5 cm H_2O for COPD, or asthma when used with a nebulized bronchodilator (9016).
- Evaluate the response of the patient, assessing breath sounds, oxygen saturation, and general appearance. Titrate additional oxygen to the patient's O_2 saturation. (May add nasal cannula oxygen if needed) Many patients will not require high FiO_2.
- Encourage the patient to allow forced ventilation to occur. Observe closely for signs of complications. The patient must be breathing for use of CPAP. P[3]
- Document time and response on the PCR, estimated PEEP, and ET waveform (Capnography).

[3]AEMT providers may perform these procedures if credentialed with the appropriate OM.

CPAP is contraindicated for respiratory or cardiac arrest, hypotension, ALOC, nausea and vomiting, head trauma, pneumothorax, inability to maintain a patent airway, suspected intracranial hemorrhage.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

Version 0510 (previous versions should be disregarded/destroyed)

ADULT CARBON MONOXIDE OXIMETRY

IDAHO EMS PROTOCOL

This protocol may not be modified by the Medical Director except at the Paramedic level.

INDICATIONS:

- Suspected carbon monoxide (CO) exposure.
- CO exposure may be associated with the following:
- Smoke inhalation
- Burn injuries
- Automotive exhaust exposure
- Faulty indoor heating systems
- Improperly vented fuel-burning devices (e.g., kerosene heaters, camping stoves)
- Methylene chloride exposure

CONTRAINDICATIONS:

- Exhaled CO detectors are not yet approved for use by Idaho-licensed EMS personnel.

PRECAUTIONS:

- Airway, breathing, circulation and scene safety always take precedence over CO oximetry.
- CO oximetry should not delay patient transport when indicated.
- High flow supplemental oxygen should not be delayed or withheld to obtain CO oximetry.
- Carboxy-hemoglobin (CO-Hb) levels do not always correlate with symptoms and may not predict CO toxicity or delayed neurologic sequalae. Most importantly, a normal CO-Hb level does not rule out illness and/or the need for transport and ED evaluation. In other words, CO oximetry may not be used to rule out a CO exposure.
- Non-smokers may have CO-Hb levels up to 3%; smokers may have levels of 10-15% at baseline.
- Pulse oximetry monitors may give falsely normal readings in patients who have been exposed to CO.
- Ambient light such as strobes, direct sun & extra bright lights may affect both pulse and CO oximetry.
- Cyanide exposure may accompany CO exposure (e.g., house fire).
- Certain severe cases of CO toxicity may benefit from hyperbaric oxygen therapy.
- Consider CO poisoning in the setting of unexplained symptoms such as headache, nausea/vomiting, dizziness, lightheadedness, dyspnea, confusion or altered level of consciousness.

1. Assess the patient for indications, contraindications and higher treatment priorities (e.g, ABCs). Manage higher treatment priorities prior to CO oximetry.
2. If necessary, move the patient a safe distance away from the suspected source of CO exposure.

The Idaho EMS Bureau has taken extreme caution to ensure all information is accurate and in accordance with professional standards in effect at the time of publication. This protocol must be followed by EMT and AEMT personnel. This protocol may not be modified by the EMS Medical Director except at the Paramedic level. It is recommended that care be based on the patient's clinical presentation and on authorized policies and guidelines.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

Version 0510 (previous versions should be disregarded/destroyed)

ADULT

3. Assess patient for symptoms of CO toxicity, which may include headache, nausea/vomiting, blurred vision, dyspnea/shortness of breath, chest pain, syncope/loss of consciousness, dizziness, lightheadedness, weakness, unsteady gait, seizures, confusion or altered level of consciousness.

4. If altered level of consciousness is present, perform automated blood glucometry if this skill is within the local scope of practice. If hypoglycemia is present, treat in accordance with local protocol.

5. Measure SpCO.
    a. Before using the CO oximeter, the provider must be trained and have demonstrated competency with the specific device being used.
    b. Prepare the device according to the manufacturer's instructions.
    c. Fingers should be **clean** especially if covered in soot from a fire.
    d. Always confirm high readings with 2 additional finger measurements using different fingers.

6. Determine need for treatment and transport.
    a. Is patient symptomatic? All symptomatic patients should be transported regardless of SpCO measurement with 100% oxygen for ED evaluation.
    b. Is SpCO >25% with loss of consciousness or neurological impairment? If yes, transport on 100% oxygen for ED evaluation. Consider transport to a hospital with a hyperbaric chamber in accordance with local destination protocol. If no, go to step c.
    c. Is SpCO >12% with or without symptoms? If yes, transport on 100% oxygen for ED evaluation. If no, go to step d.
    d. Is SpCO ≤12% without symptoms of CO exposure? If yes, no immediate treatment is required. If patient becomes symptomatic, further evaluation is required. Consider source of CO exposure if patient is a non-smoker. Consider transport if other conditions warrant ED evaluation.

7. Patient refusal of care should be managed in accordance with local protocol.

8. Patient non-transport should be managed in accordance with local protocol.

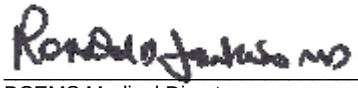
Note:
1. According to the EMSPC Standards Manual, CO Oximetry is an optional skill for the EMT and AEMT.
2. The EMT and AEMT must obtain EMS Bureau-specified training prior to skill credentialing.

Ronald Jackson MD

BCEMS Medical Director

3. The EMT and AEMT must perform CO Oximetry in accordance with this EMSPC protocol.

The Idaho EMS Bureau has taken extreme caution to ensure all information is accurate and in accordance with professional standards in effect at the time of publication. This protocol must be followed by EMT and AEMT personnel. This protocol may not be modified by the EMS Medical Director except at the Paramedic level. It is recommended that care be based on the patient's clinical presentation and on authorized policies and guidelines.



CONFIRMATION OF AIRWAY PLACEMENT ET-CO2 DETECTION

Clinical Indications

- End Tidal CO_2 detectors shall be used with all AEMT Blind Insertion Airway Device (BIAD-9007) procedures to confirm appropriate airway placement.

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

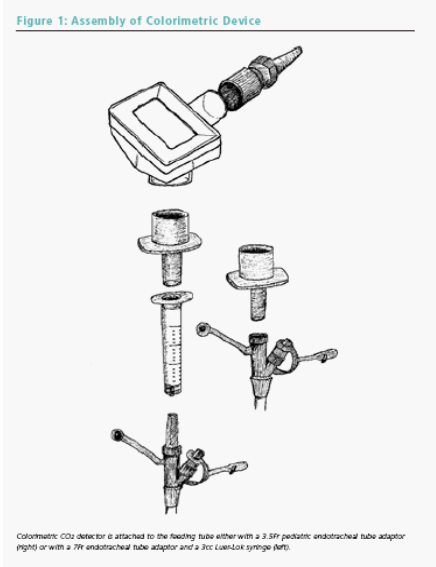
Attach End-Tidal CO2 detector to the BIAD (9007). Note color change indicating CO2 detection. The CO2 detector shall remain in place with the airway and monitored throughout the prehospital care and transport unless Capnography (9002) is utilized. Any loss of CO2 detection or color change is to be documented and monitored as procedures are done to verify or correct the airway problem. Tube placement should be verified frequently and always with each patient move or loss of color change in the End-Tidal CO2 detector. Document the procedure and results of ET-CO2 detection on the patient care report (PCR).	P[2,3]
▪ ** Discuss alternatives with Medical Control when confirmation of airway placement isn't clear **	M

[2]EMT and [3]AEMT providers may perform these skills if credentialed with the appropriate optional module.

It is strongly recommended that continuous Capnography by used in place of, or in addition to the use of End-Tidal CO_2 detection, when available.

QA Parameters: 100% of intubations documenting use of either $ETCO_2$ detection and or Capnography.

Easy Cap CO2 Detector
Easily attaches to an endotracheal tube for
monitoring of End Tidal CO2 levels with
breath-to-breath response. A color change
between inspiration and expiration helps
verify proper tube placement in seconds.
Easy Cap weighs less than an ounce and fits
all standard airway connectors.



Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

PREOXYGENATION PRIOR TO ADVANCED AIRWAY PLACEMENT

Clinical Indications

- Preoxygenation prior to Advanced Airway Placement may decrease associated hypoxemia, morbidity and mortality.
- Preoxygneation is beneficial for elective endotracheal intubation, and **Mandatory** for RSI procedures.

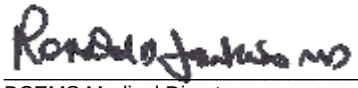
PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

▪ Apply tight fitting non-rebreather mask to patient with flow rates >15 L/min (ideal 25-30L/min) for patients with intact ventilatory efforts. ▪ Provide BMV ventilation with good facial seal with flow rates > 15 L/min for patients with apnea or inadequate ventilatory effort. ▪ Goal for Preoxygenation is $SpO_2 \geq$ 99-100%. ▪ To insure adequate denitrogenation, high flow oxygen should be administered for at least 3 minutes with normal tidal volumes, or at least 8 breaths at maximal vital capacity.	**R**
▪ Place nasal cannula with Oxygen at 15 L/min during advanced airway placement procedure. ▪ Pulse Oximetry (9001).	**E**
▪ Observe patient response to preoxygenation with pulse Oximetry[3]: ▪ For SpO_2 95-100%, continue with non-rebreather mask (low risk of procedural hypoxemia). ▪ For SpO_2 91-94%, assess for pathology associated with increased pulmonary shunting (CHF, ARDS, shock, submersion lung injury), and consider using CPAP starting at 5cm/H_2O for further preoxygenation (higher risk of procedural hypoxemia). ▪ For SpO_2 <91%, consider BVM ventilation with high flow Oxygen for preoxygenation. ▪ For SpO_2 <90% despite preoxygenation with BVM, proceed with immediate advanced airway placement (highest risk for poor outcome). ▪ For combative or uncooperative patients, consider administration of a mild sedative such as Midazolam, or Ketamine to allow successful preoxygenation.	**P**
▪ ** Consider discussion with Medical Control for concerns about challenging patients**	**M**
3AEMT providers may perform these procedures if credentialed with the appropriate OM.	

Preoxygenation with 25-30 L/Min is optimal when using a non-rebreather mask in order to achieve an FIO_2 of >90%. Avoid hyperventilation by using normal tidal volumes except when using the 8 breaths with maximal vital capacity for preoxygenation. Maximal vital capacity is achieved when the patient is able to link maximal inhalations to maximal exhalations. Denitrogenation is the process of removing nitgrogen by displacing it with high flow Oxygen, thus creating an increased Oxygen "reservoir". Nasal cannula delivered Oxygen while a patient is developing apnea in response to RSI drugs may lessen procedure related hypoxemia. Patient positioning is important; consider lateral position or reverse Trendelenberg positioning for obese, pregnant or immobilized patients.



i-GEL SUPRAGLOTTIC BLIND INSERTION AIRWAY DEVICE (BIAD)

Clinical Indications

- Inability to adequately ventilate a patient with a bag-valve-mask, or longer transport distances requiring a more advanced airway.
- Appropriate intubation is impossible due to patient access or difficult airway anatomy.
- Inability to secure an endotracheal tube in a patient who does not have a gag reflex where at least one failed intubation attempt has occurred.
- Patient must be unconscious.
- An i-Gel BIAD Airway may also be used as an initial airway device in the setting of cardiopulmonary arrest in the interest of avoiding interruption of CPR.

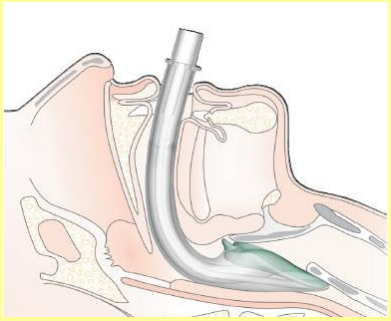
PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

- Pre-Oxygenate the patient with 100% Oxygen (9006). Remove dentures or removable dental appliances before attempting insertion.
- Select the appropriate tube size for the patient. *(see Table 1)*
- Remove the device from the protective cradle and inspect for any signs of damage.
- Place water-soluble jelly in the middle of the protective cradle.
- Lubricate the back of the i-Gel on the non-inflatable cuff and ensure no lubricant is in the cuff.
- Lubricate each side and the tip of the non-inflatable cuff.
- Grasp along the integral bite block and face the cuff outlet toward the patient's chin.
- Insert the i-Gel into the mouth in the direction of the hard palate.
- Glide the device down and back along the hard palate with continuous, gentle pressure, until resistance is met. Tape to secure or use a commercial tube holder.
- Connect the i-Gel to an BVM and assess for breath sounds and air entry.
- Confirm tube placement with end-tidal CO_2 detector (9005).
- Monitor continuously with Pulse Oximetry (9001), and Capnography (9002).
- Document the procedure and results on the patient care reporting form (PCR).

A[2]



Size	Patient	Body weight [kg]
1	Neonate	2–5
1.5	Infant	5–12
2	Child	10–25
2.5	Large Child	25–35
3	Young Adult	30–60
4	Adult	50–90
5	Large Adult	90+

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Contraindications to BIAD placement: Conscious patients, patients with intact gag reflex, patients outside of size and age parameters, patients who have ingested caustic substances, and patients with esophageal disease such as varices and cancer. This airway does not prevent aspiration of stomach contents.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

CRICOTHYROTOMY/SURGICAL

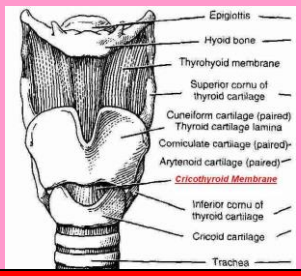
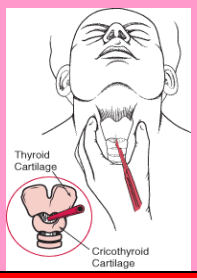
Clinical Indications

- Management of an airway when standard airway procedures cannot be performed or have failed in a patient ≥ 8 years-old.
- Failure to place BIAD or endotracheal tube in the presence of respiratory failure.
- Facial trauma, foreign body obstruction, inhalation, thermal or caustic injury to the upper airway, cervical spine instability and upper airway bleeding may necessitate surgical cricothyrotomy. Indications are also found in Failed Airway Guidelines (4001).

PROCEDURE GUIDELINES

R- EMR	E – EMT	A- AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

▪ Have suction and supplies available and ready. These include: 6.0 endotracheal tube which is cut off just above the balloon port, Bougie (Flex-guide), #10 scalpel, Ruiz hook, Chlorhexidine swabs, sterile gauze pads, Twill tape, 10 ml syringe and suction equipment. ▪ Place the patient in a supine position with support under the shoulders and mild hyperextension of the neck unless C-spine injury is suspected. Wear face mask/shield and eye protection. Air and blood are often forcibly expelled when the cricothyroid membrane is exposed. ▪ Palpate the neck in the midline and locate the slight depression of the cricothyroid membrane just below the inferior border of the thyroid cartilage and just above the cricothyroid cartilage. The approximate location of the membrane is three finger breadths above the sternal notch. Prep the area with Chlorhexidine swabs. ▪ Have a partner stand at the head of the patient and stretch the skin across the thyroid cartilage, or maintain a grasp on the thyroid cartilage. Make a vertical 2" skin incision, dissecting until you locate the cricoythyroid membrane. ▪ Puncture the cricothyroid membrane with the Ruiz hook. Hook the inferior edge of the thyroid cartilage and lift toward the head. Orient the #10 scalpel transversely and puncture the membrane. ▪ Remove the scalpel, cover the blade with the protector, turn the scalpel upside down and place the handle into the incision. Twist the handle to enlargen the hole, then orient the handle vertically and insert bougie next to the handle. Advance the bougie into the trachea toward the carina and remove the scalpel. ▪ Ensure that the air is removed from the ET tube balloon, and slide the tube down the bougie through the membrane using a twisting motion. Ensure the balloon is advanced into the trachea until the black vocal cord marker on the tube is just below the membrane and remove the bougie. ▪ Inflate the cuff with 5-10cc of air and ventilate the patient with 100% Oxygen while manually stabilizing the tube. ▪ Verify proper tube placement by: Auscultation of lung fields, ETCO2 detection (9005) or capnography (9002), and presence of lack of subcutaneous air in neck. ▪ **Once position is confirmed**, remove the Ruiz hook and secure the ET tube using Twill tape. ▪ Document ETT size, time, result (success), and placement location on the patient care report (PCR). Document all devices used to confirm tube placement and after each movement of the patient, and name of receiving physician who verified placement. ▪ Consider placing an NG or OG tube to clear stomach contents after the airway is secured. ▪ Continue ventilation with 100 percent oxygen and assess oxygenation (Pulse Oximetry 9001).  	P
▪ ** Discuss results of surgical Cricothyrotomy with Medical Control once completed **	M

Relative contraindications include fractured larynx or significant damage to the cricoid cartilage or larynx, coagulopathy or expanding hematoma in the area of the cricothyroid membrane.

QA Parameters: 100% of surgical Cricothyrotomy procedures.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

AIRWAY ENDOTRACHEAL INTRODUCER (BOUGIE)

Clinical Indications

- Patient meets clinical indications for oral endotracheal intubation
- Initial intubation attempts are unsuccessful
- Predicted difficult intubation

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

▪ Prepare, position and oxygenate the patient with 100% oxygen. ▪ Select proper ET tube without stylet, test cuff and prepare suction. ▪ Lubricate the distal end and cuff of the endotracheal tube (ETT) and the distal ½ of the endotracheal tube introducer (Bougie). Failure to lubricate the Bougie and the ETT may result in being unable to pass the ETT. ▪ Using laryngoscopy techniques, visualize the vocal cords if possible using Sellick's BURP as needed. ▪ Introduce the Bougie with curved tip anteriorly and visualize the tip passing the vocal cords or above the arytenoids if the cords cannot be visualized. ▪ Once inserted, gently advance the Bougie until you meet resistance or "hold-up". If you do not meet resistance, you have a probable esophageal intubation and insertion should be reattempted or the failed airway procedure implemented as indicated. ▪ Withdraw the Bougie ONLY to a depth sufficient to allow loading of the ETT while maintaining proximal control of the Bougie. ▪ Gently advance the Bougie and loaded ETT until you have "hold-up" again, thereby assuring tracheal placement and minimizing the risk of accidental displacement of the Bougie. ▪ While maintaining a firm grasp on the proximal Bougie, introduce the ET tube over the Bougie passing the tube to its appropriate depth. ▪ If you are unable to advance the ETT into the trachea and the Bougie and ETT are adequately lubricated, withdraw the ETT slightly and rotate the ETT 90^0 COUNTER clockwise to turn the bevel of the ETT posteriorly. If this technique fails to facilitate passing of the ETT, you may attempt direct laryngoscopy while advancing the ETT (this will require an assistant to maintain the position of the Bougie and, if desired, advance the ETT). ▪ Once the ETT is correctly placed, hold the ET tube securely and remove the Bougie. ▪ Confirm the tracheal placement according to guidelines (9005), inflate the cuff with 3-10 cc of air, auscultate for breath sounds and reposition accordingly. ▪ When final position is determined, secure the ET tube, reassess breath sounds, apply end-tidal CO2 monitor, and record and monitor readings to assure continued tracheal intubation. ▪ Document the procedure, time and results on the patient care report (PCR).	P

Use of a Bougie endotracheal introducer is contraindicated after three attempts at oral tracheal intubation, age less than 8 years-old, or ETT size less than 6.0 mm.
QA Parameters: 100% of intubations requiring the use of a Bougie endotracheal introducer.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

FOREIGN BODY OBSTRUCTION

Clinical Indications

- Sudden onset of respiratory distress often with coughing, wheezing, gagging, or stridor due to a foreign body obstruction of the upper airway.

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

- Assess the degree of foreign body obstruction. Do not interfere with a mild obstruction allowing the patient to clear their airway by coughing. In severe foreign body obstructions, the patient may not be able to make a sound. The victim may clutch his/her neck in the universal choking sign.
- **For an infant**, deliver 5 back blows (slaps) followed by 5 chest thrusts repeatedly until the object is expelled or the victim becomes unresponsive.

- **For a child**, perform a subdiaphragmatic abdominal thrust (Heimlich maneuver) until the object is expelled or the victim becomes unresponsive.
- **For an adult,** a combination of maneuvers may be required. First, subdiaphragmatic abdominal thrusts (Heimlich maneuver) should be used in rapid sequence until the obstruction is relieved. If abdominal thrusts are ineffective, chest thrusts should be used. Chest thrusts should be used primarily in morbidly obese patients and in patients who are in the late stages of pregnancy.
- If the victim becomes unresponsive, begin CPR immediately, but look in the mouth before administering any ventilations. If a foreign body is visible, remove it.
- **Do not perform blind finger sweeps in the mouth and posterior pharynx. This may push the object further into the airway.**

R

- In unresponsive patients, paramedic providers should visualize the posterior pharynx with a laryngoscope to potentially identify and remove the foreign body using Magill forceps.
- Document the methods used, time and results in the patient care report (PCR).

P

QA Parameters: 100% of cases where direct laryngoscopy is utilized for Foreign Body Obstruction.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

ORAL TRACHEAL INTUBATION

Clinical Indications

- Inability to adequately ventilate a patient with a bag-valve-mask, or longer transport distances requiring a more advanced airway.
- An unconscious patient without a gag reflex who is apneic or is demonstrating inadequate respiratory effort.
- A component of Medication Assisted Intubation.

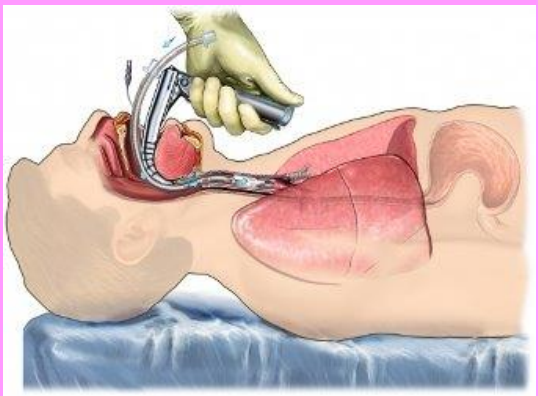
PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

- Preoxygenate and hyperventilate the patient with 100% oxygen (9006). Monitor Pulse Oximetry (9001) throughout and following procedure.
- Select the appropriate ET tube and stylet for the patient. Have suction available.
- Lubricate the tube.
- Using laryngoscope, visualize vocal cords. Use Sellick's Maneuver/ **BURP** (**B**ackward, **U**pward, and **R**ightward **P**ressure on the larynx to assist you).
- Limit each intubation attempt to 30 seconds with BVM between attempts.
- Visualize tube passing through vocal cords.
- **Confirm and document tube placement using an end-tidal CO_2 monitoring.** Inflate the cuff with 3-10 cc of air; secure the tube to the patient's face.
- Auscultate for bilaterally equal breath sounds and absence of sounds over the epigastrium. If you are unsure of placement, remove tube and ventilate patient with Bag-Valve-Mask.
- Consider using a Blind Insertion Airway Device such as the i-Gel (9007), if oral tracheal intubation attempts are unsuccessful.
- Monitor continuously with Pulse Oximetry (9001), and Capnography (ALS procedure-9002) when available.
- Document ETT size, time, result, and placement location by the centimeter marks either at the patient's teeth or lips on the patient care report (PCR).
- Consider placing an NG or OG tube to clear stomach contents after the airway is secured with an ET tube.

P



Ronald Jackson MD

NASOTRACHEAL INTUBATION

Clinical Indications

- A spontaneously breathing patient in need of intubation (inadequate respiratory effort, evidence for hypoxia or carbon dioxide retention, or need for airway protection)
- Rigidity or clenched teeth prohibiting other airway procedures
- Patient must be 12 years of age or older

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

- Preoxygenate and hyperventilate the patient with 100% oxygen (9006). Monitor Pulse Oximetry (9001) throughout and following procedure.
- Select the largest and least obstructed nostril and insert a lubricated nasal airway to help dilate the nasal passage.
- Preoxygenate patient again with 100% oxygen.
- Select the appropriate NT tube for the patient and lubricate. The Endotrol endotracheal tube with a controllable tip is recommended. Have suction available.
- Remove the nasal airway and gently insert the NT tube keeping the bevel of the tube toward the nasal septum. The controlling ring on the Endotrol tube controls the distal tip.
- Continue to pass the tube, listening for air movement and looking for "to and fro" vapor condensation in the tube. As the tube approaches the larynx, the air movement gets louder.
- Gently and evenly, advance the tube through the glottic opening on the inspiration. This facilitates passage of the tube and reduces the incidence of trauma to the vocal cords. **P**
- Upon entering the trachea, the tube may cause the patient to cough, buck, strain, or gag. Do not remove the tube! This is normal, but be prepared to control the cervical spine and the patient, and be alert for vomiting.
- Auscultate for bilaterally equal breath sounds and absence of sounds of the epigastrium.
- Observe for symmetrical chest expansion. The 15mm adapter usually rests close to the nostril with proper positioning.
- Limit each intubation attempt to 30 seconds with BVM between attempts.
- **Confirm and document tube placement using an end-tidal CO_2 monitoring.**
- Inflate the cuff with 5-10 cc of air; secure the tube to the patient's face.
- Consider using a Blind Insertion Airway Device such as an i-Gel (9007), if Nasotracheal Intubation attempts are unsuccessful.
- Monitor continuously with Pulse Oximetry (9001), and Capnography (9002).
- Document ETT size, time, result, and placement location by the centimeter marks either at the patient's teeth or lips on the patient care report (PCR).

MEDICATION ASSISTED AIRWAY (RSI)

Clinical Indications

- This procedure provides guidelines for successful rapid sequence endotracheal intubation (RSI).
- Patients requiring RSI may include those where the paramedic expects difficulty in securing the airway, status epilepticus (seizures unresolved with anticonvulsants and inadequate respirations), isolated head trauma, CVA, multiple system trauma, overdose, acute pulmonary edema, respiratory failure, and severe burns.
- RSI is utilized for patients unable to maintain a patent airway when there is adequate manpower and equipment.

TREATMENT GUIDELINES

R-EMR	E–EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

▪ Pre-oxygenate (9006) with bag-valve-mask while assembling equipment (2-3 min). ▪ Have secondary airway immediately available. Evaluate for difficult BVM ventilation (MOANS), and indicators for difficult intubation (LEMONS) or Cricothyrotomy (DOA). ▪ Consider Lidocaine 1 mg/kg IV/IO for evidence of head injury or stroke or suspected increased intracranial pressure (ICP). ▪ Before administration of a paralytic drug, screen for contraindications, do neurologic exam. ▪ Administer Etomidate 0.3mg/kg IV/IO, or Ketamine 1-2 mg/kg IV/IO. Ketamine is preferred in the settings of hypotension or clinical indicators for shock. ▪ After 30 seconds assess patient and consider intubation via sedation only. ▪ Consider Fentanyl particularly in pediatrics and trauma (note: Fentanyl may increase ICP in head trauma patients) 0.5-2.0 mg/kg- IV/IO. ▪ Administer Rocuronium 1.0 mg/kg -IV/IO, or Succinylcholine 1.5 mg/kg IV/IO. ▪ Apply cricoid pressure to occlude the esophagus. ▪ As fasiculations stop jaw relaxes and resistance to ventilations diminishes, proceed with intubation. Attempt intubation up to 3 times; oxygenate between attempts. ▪ If unable to intubate after 3 attempts, utilize secondary airway such as an i-Gel Supraglottic airway device (9007). ▪ Confirm endotracheal tube placement and inflate cuff. ▪ Measure $ETCO_2$ (9002), and Pulse Oximetry (9001). Ventilate at a rate to maintain $ETCO_2$ at 35-45 mmHg. For obvious head injury with possible increased ICP, ventilate as needed to an $ETCO_2$ of 30-35 mmHg. ▪ Consider restraints and C-collar placement to help reduce dislodgement. ▪ Document procedure, ETT size, time, result and placement location in PCR.	P

Pearls:

MOANS: Difficult Mask seal, Obese or airway obstruction, Advanced age, No teeth, Sleep apnea or Stiff lungs. LEMONS: Look externally, Evaluate 3-3-2, Mallampati score, Obstruction, Neck mobility, Scene or Situation. DOA: Disruption or Distortion, Obstruction, Access problems. The paramedic must be prepared to deal with and prevent complications while placing an endotracheal tube. These include: airway trauma, laryngospasm, hypoxia, aspiration and Failed Airway (4002). Patient outcomes are directly related to the promptness and competency with which a paramedic moves through appropriate options while maintaining ventilation. Premedicate pediatric patients with Atropine 0.01-0.02 mg/kg IV/IO. Don't be a D.O.P.E.- Reassess for complications: Displacement, Obstruction, Pneumothorax, and Equipment failure.

QA Parameters: 100% of patients receiving RSI with attention to frequency of Capnography.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

SUCTIONING-ADVANCED

Clinical Indications

- Obstruction of the airway (secondary to secretions, blood, or any other substance) in a patient currently being assisted by an airway adjunct such as a nasotracheal tube, endotracheal tube, Biad, tracheostomy tube, or a cricothyrotomy tube.

PROCEDURE GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

- Ensure suction device is in proper working order.
- Preoxygenate the patient as is possible.
- Attach suction catheter to suction device, keeping sterile plastic covering over catheter.
- Using the distance between the suprasternal notch and the end of the airway as a measurement guide for the distance the suction catheter will be advanced into the trachea (judgment must be used regarding the depth of suctioning with cricothyrotomy and tracheostomy tubes).
- If applicable, remove bag-valve device, taking great care to not disturb the airway device position.
- With the thumb port of the catheter uncovered, insert the catheter through the airway device.
- Once the desired depth (measured in #4 above) has been reached, occlude the thumb port and remove the suction catheter slowly. A[2]
- A small amount of normal saline (10 ml) may be used if needed to loosen secretions for suctioning.
- Total time for suctioning, from oxygen source disconnect to reconnect and resumption of ventilation, should not exceed 10-15 seconds.
- Reattach ventilation device (e.g., bag-valve device) and ventilate the patient.
- Document time and result in the patient care report (PCR)

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

SUCTIONING-BASIC

Clinical Indications

- **Obstruction of the airway (secondary to secretions, blood, or any other substance) in a patient who cannot maintain or keep the airway clear.**

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

1. Ensure suction device is in proper working order with suction tip in place.
2. Preoxygenate the patient if possible.
3. Explain the procedure to the patient if they are coherent.
4. Examine the oropharynx and remove any potential foreign bodies or material which may occlude the airway if dislodged by the suction device.
5. If applicable, remove mask and if necessary an oropharyngeal airway prior to suctioning.
6. Use the suction device to remove any secretions, blood, or other substance from the oropharynx. A video of the procedure can be found at http://www.youtube.com/watch?v=dXROo5YlC3o.
7. The alert patient may assist with this procedure.
8. If tracheal suctioning is necessary, go to Guideline 9014 (Suctioning- Advanced), a procedure within the scope of AEMT or higher level providers (and EMT providers with the appropriate OM).
9. Replace oropharyngeal airway and reattach ventilation device (e.g., bag-valve mask) and ventilate or assist the patient.
10. Record the time and result of the suctioning in the patient care report.

NEBULIZER INHALATION THERAPY

Clinical Indications

- Nebulizer treatment for patients with bronchospasm.

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

▪ Gather the necessary equipment. ▪ Assemble the nebulizer kit. ▪ Instill the premixed drug (such as Albuterol or other approved drug) into the reservoir well of the nebulizer. ▪ Connect the nebulizer device to oxygen at 6-8 liters per minute or adequate flow to produce a steady visible mist. ▪ Instruct the patient to inhale normally through the mouthpiece of the nebulizer. The patient needs to have a good lip seal around the mouthpiece. ▪ The treatment should last until the solution is depleted. Tapping the reservoir well near the end of the treatment will assist in utilizing all of the solution. ▪ Monitor the patient for medication effects. This should include the patient's assessment of his/her response to the treatment and reassessment of vital signs, ECG (if indicated), and breath sounds. ▪ Assess and document peak flows before and after nebulizer treatments. ▪ Document the treatment, dose, and route on the patient care report (PCR).	A[4]



[4]Nebulized administration of Ipratropium is a Paramedic level procedure.

Ipratropium, 2.5 cc may also be nebulized in the same fashion as Albuterol. Ipratropium may cause cough, nervousness and dry mouth. It is contraindicated if peanut or soy allergies are known.

Ronald Jackson MD

NITROUS OXIDE ANALGESIA

Clinical Indications

- **Prehospital analgesia for indications including chest pain, myocardial infarction, kidney stones, urinary retention, burns, fractures, dislocations and labor pain.**
- **Nitrous Oxide is contraindicated in the presence of altered metal status, intoxication, facial burns, facial trauma, chest trauma including pneumothorax, undiagnosed abdominal pain, respiratory distress, congestive heart failure, pulmonary hypertension, eye surgery, decompression sickness, B12 deficiency, head trauma and the first two trimesters of pregnancy.**

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

- Gather the necessary equipment.
- The concentration of nitrous oxide-oxygen mixture is fixed at 50:50. No other mixture is permitted.
- Nitrous oxide-oxygen is self-administered by the patient with EMT assistance. The negative pressure exerted by the patient's inhalation effort triggers gas flow. A tight mask-face seal is necessary.
- Cylinders must be positioned and secured in the upright position.
- Cylinders must be stored at a temperature greater than 10 degrees Celsius at all times.
- Cylinders must not be stored outdoors or in vehicles that are not maintained at a temperature of at least 10 degrees Celsius at all times
- Cylinders must not be stored in outside compartments of vehicles
- Pressure readings should be checked and documented at the beginning of each shift and after each use.
- Turn the cylinder end over end three times immediately prior to each use. This will ensure proper gas mixing.
- Document the treatment, route and effect on the patient care report (PCR).

Inhaled Nitrous Oxide treatment is to be avoided during ambulance transport due to risk of provider exposure.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

TRANSPORT VENTILATOR OPERATION

Clinical Indications

- Management of the ventilator of a patient during a prolonged or interfacility transport of an intubated patient.

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

▪ Transporting personnel should review the operation of the transport ventilator with the treating personnel (physician, nurse or respiratory therapist) in the referring facility prior to transport. ▪ All ventilator settings including respiratory rate, FiO_2, mode of ventilation, and tidal volumes should be recorded prior to initiating transport. Additionally, the recent trends in oxygen saturation experienced by the patient should be noted. ▪ Prior to transport, specific orders regarding any anticipated changes to ventilator settings as well as causes for significant alarm should be reviewed with the referring medical personnel. ▪ Once in the transporting unit, confirm adequate oxygen delivery to the ventilator. ▪ Frequently assess the patient's breath sounds and respiratory status to assess for possible tube dislodgement during transfer. ▪ Note any decreases in oxygen saturation, or changes in tidal volumes, peak pressures, ventilator settings or patient condition. ▪ Consider placing an OG or NG tube (9042) to clear stomach contents. ▪ Document the procedures, settings, and changes in settings and patient condition on the patient care report (PCR).	P
▪ ** For any significant change in patient condition, including vital signs or oxygen saturation, or if there is a concern regarding ventilator performance or alarms, remove the ventilator from the endotracheal tube and then use a bag-valve-mask (BVM) with 100% oxygen. Contact Medical Control immediately **	M

QA Parameters: 100% of patients where a ventilator is abandoned due to patient condition or ventilator alarm or malfunction.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

SECTION 9000
PROCEDURES AND SKILLS

MEDICATION ADMINISTRATION 9020-9029

ACETYLSALICYLIC ACID (ASPIRIN) ADMINISTRATION

Clinical Indications

Chest pain of possible cardiac origin. Presentation and symptoms may include:

- Retrosternal chest heaviness, tightness or pain
- Radiation of pain to the neck, arms or jaw
- Associated shortness of breath, nausea vomiting or diaphoresis
- Symptoms often worsened by exertion
- Patient over 35 years old
- Possible drug use such as cocaine or methamphetamines

The administration of aspirin in the setting of acute myocardial infarction has been demonstrated to significantly reduce the risk of death (mortality)

PROCEDURE GUIDELINES

R- EMR	E-EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

Initiate an Advanced Life Support (ALS) response, if available.
Patient must be alert, responsive and able to swallow.
Determine if the patient meets criteria for administration (evaluate possible contraindications).
Follow Chest Pain Guidelines (5000).
Administer four (4) - 81 mg chewable (baby) aspirin tabs PO, 324 mg total dosage.
Record your actions on PCR, to include the dosage given and time of administration.

Contraindications:
Active Bleeding Disorders
Coumadin (warfarin) anticoagulants currently taken
Pregnancy
Known hypersensitivity to aspirin
Known hypersensitivity to NSAIDs
Children with an acute viral illness including varicella & influenza (associated with Reye's Syndrome)

E

Possible side effects of aspirin: GI irritation, nausea and vomiting, GI bleeding, hypersensitivity with bronchospasm and urticaria, and prolonged bleeding time. Aspirin should be administered to ALL acute coronary syndrome (ACS) patients in the acute setting even if they are regularly taking aspirin. TOXICOLOGY: 150-300 mg/kg- mild toxicity; 300-500 mg/kg- serious toxicity; >500 mg/kg- lethal toxicity.

Ronald Jackson MD

Procedure: Injections: Subcutaneous and Intramuscular

For the administration of Glucagon, Adrenaline and Epi-Pen

Clinical Indications:

When medication administration is necessary and the medication is to be given via the SQ or IM route using a syringe or an auto injector.

Procedure:

1. Receive and confirm medication order or perform according to standing orders.
For glucagon, mix diluent with powder following manufacturers recommendations using sterile technique.
Ensure clarity and color of the medication is appropriate.
Check expiration date
Withdraw medication from ampules or vials using sterile technique. An equal volume air may need to be injected into the medication vial to equalize pressure before medication is withdrawn. Use a filter needle to withdraw medication from a glass ampule; dispose after draw.

2. Expel air from the syringe and needle before injection.

3. Explain the procedure to the patient and reconfirm patient allergies. Confirm the 6 "Rights"

Rights:
Right medication
Right route
Right time
Right person
Right dose
Right documentation

4. The most common site for subcutaneous injection is the upper arm.
Injection volume should not exceed 1 ml.

5. The possible injection sites for intramuscular injections include the deltoid, buttock and thigh.
Injection volume should not exceed 2 ml for the deltoid
Injection volume should not exceed 5 ml in the thigh or buttock. *(Brady)*

6. The thigh should be used for injections in pediatric patients.
Injection volume should not exceed 1 ml.

7. Expose the selected area and cleanse the injection site with alcohol.

8. Insert the needle into the skin with a smooth, steady motion

	SQ:	IM:
	45-degree angle skin pinched	**90-degree angle skin flattened**
Needle size	**24-26 gauge 3/8 - 1"**	**21-23 gauge 5/8-1.5"**

9. For Epi-Pen, remove cap and push injector firm against the patients lateral thigh. Hold in place for 10 seconds after it activates.
10. Aspirate for blood, if blood is aspirated, choose new site.
11. Inject the medication slowly.
12. Withdraw the needle quickly and dispose of properly without recapping.
13. Apply pressure to the site.
14. Monitor the patient for the desired therapeutic effects as well as any possible side effects.
15. Document the medication, dose, route, and time in the patient care report (PCR).

Skills Maintenance Suggestions:
Practice complete Epi-Pen, SQ and IM procedure on appropriate simulated sites on a periodic basis.

Ronald Johnson MD
BCEMS Medical Director
Effective: 07/01/19 final 3/7/2022

ORAL GLUCOSE ADMINISTRATION

Clinical Indications

Patients with altered mental status or other associated signs/symptoms of diabetes or hypoglycemia
AND a known history of diabetes or hypoglycemia
AND the patient is able to swallow.

Exclusion Criteria:

A. Patients who are unresponsive or unconscious.
B. Known diabetic patients who have not taken insulin for days.
C. Patients who are unable to swallow.

PROCEDURE GUIDELINES

R- EMR	E–EMT	A-EMTA	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

▪ Assess the patient, obtain baseline vitals and consider transport plan based on impression. ▪ Determine last meal, last medication dose or any related illness. ▪ Assure that the patient is conscious, alert enough to swallow, and able to control airway. ▪ Have suction available. ▪ Determine glucose expiration date; if expired do not use. ▪ Administer first dose of oral glucose (15 grams) by either of the following methods: a) Put glucose on tongue depressor, place tongue depressor between cheek and gum. b) Hold back patient's cheek and squeeze small portions into the mouth between cheek and gum. ▪ Lightly massaging the area between cheek and gum may help to induce swallowing. ▪ The items listed below each contain approximately 15 grams of glucose and may be used if glucose gel is unavailable: a) 1/2 cup (4 ounces) of fruit juice b) 1/2 cup (4 ounces) of regular soda pop **(Not Diet Soda)** c) 1 cup (8 ounces) milk d) 1 or 2 teaspoons of sugar or honey e) 2 or 3 glucose tablets (May be difficult to use if patient is unwilling to chew) ▪ Administer a second dose equal to 15 grams, if needed. ▪ Perform ongoing assessment: a) If patient loses consciousness or seizes, remove tongue depressor from mouth and protect airway. b) Monitor airway closely to avoid accidental blockage by or aspiration of oral glucose. c) It may take up to 20 minutes to see noticeable improvement. d) If patient continues to deteriorate, manage airway and breathing, provide high flow oxygen, and request ALS assist. ▪ If patient fails to respond promptly, transport to nearest emergency facility. ▪ Record events, medications administered and results of interventions on patient care record (PCR).	**E**
▪ ****Contact Medical Control for seizures and or cardiac arrest.****	**M**

Aspiration is possible if the patient is unable to swallow or protect his/her airway.

Ronald Jackson MD

BCEMS Medical Director

NITROGLYCERIN ADMINISTRATION

Clinical Indications

- Chest pain of possible cardiac origin. Symptoms may include:
  1. Retrosternal chest heaviness, pressure or pain
  2. Radiation of pain to neck, arms or jaw
  3. Associated SOB, nausea/vomiting or sweating
  4. Possibly worsened by exertion
  5. Patient over 30 years old
  6. Patient with history of recent cocaine use

SCOPE OF PRACTICE

- EMT/AEMT's may perform this function with specific training.
- EMT's may administer the patient's Nitroglycerin only if already prescribed to the patient.
- AEMT's may carry and administer Nitroglycerin in the field for patients who present with chest pain of suspected cardiac origin only if already prescribed to the patient.

PROCEDURE GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

▪ Check to see if the patient has already taken any doses of Nitroglycerin.
▪ Determine if the patient has already met the maximum prescribed dose prior to your arrival.
▪ If the maximum dose of Nitroglycerin has already been taken or dosage is unknown, discourage the patient from taking any more. Contact On-Line Medical Control Physician for directions.
▪ Inspect the prescribed Nitroglycerin and document:
  ▪ **Right (Correct) Patient**- Product packaging may not have patient-specific label attached.
  ▪ **Right Medication and Form**- Only Nitroglycerin sublingual tablets or spray allowed, check expiration date.
  ▪ **Right Dose**- One tablet or one spray under tongue.
▪ If blood pressure is greater than 100 systolic, remove oxygen mask and instruct patient (or assist patient) to place one pill, or spray one dose, under tongue. Remember: wear gloves!
▪ Ask the patient to keep mouth closed without swallowing until medication is dissolved and absorbed.
▪ Record time of administration, dose administered and patient response. (Effect on pain relief and any side effects such as headache, hypotension or pulse rate changes.)
▪ Dose may be repeated in 3-5 minutes if no relief of symptoms occurs and BP remains above 100 systolic, up to a maximum of 3 doses. Contact On-Line Medical Control Physician for permission to administer additional doses.
▪ Transport promptly and continue to reassess patient.
	E

▪ Administer nitroglycerin 0.4 mg SL (spray) every three minutes, up to three doses if chest pain persists and BP is > 100 mmHg systolic.	**A**
▪ Administer nitroglycerin paste 0.5-2" transdermal (TD).[3]	**P**

3AEMT providers may perform these procedures if credentialed with the appropriate OM.

Nitroglycerin should not be given within 24 hours of taking Viagra (sildenafil) or Levitra (vardenafil) or within 48 hours of taking Cialis (Tadalafil).

Ronald Jackson MD

BCEMS Medical Director

Version 1109 (previous versions should be disregarded/destroyed)

ADULT PRESCRIBED INHALER

IDAHO EMS BASIC LIFE SUPPORT GUIDELINE

INDICATIONS:

- ③ Patient exhibits signs and symptoms of respiratory distress, decreased breath sounds and/or wheezing

  AND
- ③ Has been prescribed a bronchodilator inhaler (e.g., ProAir, Ventolin, Proventil, Alupent).

CONTRAINDICATIONS:

- ③ Patient is not alert enough to use the inhaler.
- ③ Inhaler is not prescribed to patient. An EMT/AEMT may only assist the patient with self-administration.
  NOTE: Inhaler may not have a patient-specific label.
- ③ The medication has expired.
- ③ The medication name or expiration date cannot be determined.

POTENTIAL ADVERSE EFFECTS:

- ③ Increased pulse rate
- ③ Tremors, nervousness or agitation

PRECAUTIONS:

- ③ If patient condition deteriorates, be prepared to assist ventilations with BVM.

1. Assess the patient for indications and contraindications.

2. Obtain a baseline set of vital signs and administer supplemental oxygen by face mask or nasal cannula.

3. Inspect the prescribed inhaler and note:
   a. Medication name
   b. Prescribed dose
   c. Expiration date
   d. Is medication prescribed for your patient?
   e. Inhaler is room temperature or warmer?
   f. Does the patient have a spacer? *(see #8)*
   g. Is it a type of inhaler that cannot be shaken?

4. If the patient is prescribed a bronchodilator inhaler but the prescribed inhaler is not present, you may substitute an albuterol inhaler carried by on-scene EMS.

5. Check to see if the patient has already taken any doses.

The Idaho EMS Bureau has taken extreme caution to ensure all information is accurate and in accordance with professional standards in effect at the time of publication. This guideline is for reference and may be modified at the discretion of the EMS

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

Medical Director. It is recommended that care be based on the patient's clinical presentation and on authorized policies and guidelines.

ADULT

6. Typical bronchodilator dose is 2 puffs. Dose may be repeated one time in 20 minutes if needed.

7. Remove oxygen mask from the patient; a nasal cannula may be left in place.

8. If spacer is available:
    a. Shake inhaler well before each inhalation unless it states, "Do not shake".
    b. Remove cap from mouth piece or use mask.
    c. Insert inhaler into spacer.
    d. Have patient close lips around spacer mouth piece.
    e. Have patient actuate inhaler once.
    f. Have patient breathe in medicine through spacer slowly over 6 seconds.
    g. If whistle sounds, have patient slow down rate of inhalation.
    h. Have patient try to hold breath for 10 seconds after inhalation.
    i. Repeat previous three steps one or two more times for each inhalation given.
    j. Wait at least 1 minute between end of cycle and giving an additional puff of medication.

9. If no spacer is available:
    a. Shake inhaler well before each inhalation unless it states, "Do not shake".
    b. Remove cap from mouth piece.
    c. Put mouth piece in mouth with lips closed around it.
    d. Have patient fully exhale.
    e. Have patient actuate inhaler as patient inhales deeply and slowly.
    f. Have patient hold breath up to 10 seconds.
    g. If additional inhalations are to be given, wait one minute then repeat all steps.

10. Replace oxygen mask.

11. Contact On-Line Medical Control if breathing difficulty is not relieved. Additional doses may be recommended.

12. Record time of administration, dose given and patient response, including any side effects.

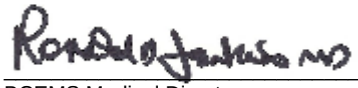
13. Reassess patient. Be prepared to suction or assist ventilations as needed.

14. Transport for medical evaluation. Do not delay transport to assist the patient with self administration.

Ronald Jackson MD

BCEMS Medical Director

The Idaho EMS Bureau has taken extreme caution to ensure all information is accurate and in accordance with professional standards in effect at the time of publication. This guideline is for reference and may be modified at the discretion of the EMS Medical Director. It is recommended that care be based on the patient's clinical presentation and on authorized policies and guidelines.



Version 0210 (previous versions should be disregarded/destroyed)

GLUCAGON

GENERAL

IDAHO EMS PROTOCOL
Administration of Glucagon

This protocol may not be modified by the Medical Director except at the paramedic level.

INDICATIONS:

- Patient is known (via blood glucometry or other laboratory method) to be **hypoglycemic** (less than 80)

AND

- Patient **cannot** take glucose by either oral or intravenous method

1. Before the administration of glucagon to any patient the provider must:
   Be trained and have demonstrated competency in:
   - Pharmacology of the drug
   - Indications for the drug
   - Contraindications of the use of the drug
   - Specific route of administration of the drug
   - Specific product and the manufacturers instructions for administration

2. Procedure:
   - Confirm the patient is hypoglycemic
   - Explain the procedure to the patient or family, if able
   - Obtain verbal consent, if able
   - Confirm the drug is not expired
   - Use body substance isolation
   - Mix the drug with the supplied diluent according to the manufacturers instructions
   - Draw up the drug in an appropriately sized syringe
   - Administer the drug either intramuscularly or subcutaneously consistent with the manufacturer's instruction for the specific product being given
   - Continue your assessment and treatment of the patient
   - Do not administer additional doses of glucagon to the same patient

3. Dosage:
   - **Adults or Children > 20KG: 1 mg**
   - **Children <20KG: 0.5 mg**

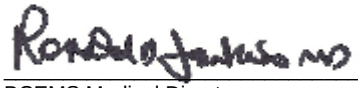
Ronald Jackson MD

BCEMS Medical Director

Note:

1. According to the 2010-1 EMSPC Standards Manual, administration of glucagon IM or SQ is an optional skill for the EMT and AEMT.
2. The EMT and AEMT must obtain EMS Bureau-specified training prior to skill credentialing.
3. The EMT and AEMT must administer glucagon in accordance with this EMSPC protocol.

The Idaho EMS Bureau has taken extreme caution to ensure all information is accurate and in accordance with professional standards in effect at the time of publication. This protocol must be followed by EMT and AEMT personnel. This protocol may not be modified by the Medical Director except at the Paramedic level. It is recommended that care be based on the patient's clinical presentation and on authorized policies and guidelines.



CHEMPACK ADMINISTRATION

Clinical Indications for Administration of Atropine and Pralidoxime by Auto-Injector

- An unexplained multi-casualty incident (MCI)
- Symptoms of nerve agent toxicity or organophosphate poisoning
- According to the 2010-1 EMSPC Standards Manual, the administration of Atropine and Pralidoxime by auto-injector is a required skill for the EMR, EMT, Advanced EMT and Paramedic.
- The EMR, EMT and AEMT must obtain EMS Bureau-specified "Just in Time" training prior to auto injector use

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

MILD SYMPTOMS

- Blurred vision, miosis (pinpoint pupils)
- Excessive, unexplained teary eyes
- Excessive, unexplained runny nose
- Increased salivation such as sudden drooling
- Chest tightness or difficulty breathing
- Tremors throughout the body or muscular twitching
- Nausea and/or vomiting
- Unexplained wheezing, coughing or increased airway secretions
- Acute onset of stomach cramps
- Tachycardia or bradycardia

- SEVERE SYMPTOMS
- Strange or confused behavior
- Severe difficulty breathing or copious secretions from lungs/airway
- Severe muscular twitching and general weakness
- Involuntary urination and defecation
- Convulsions
- Unconsciousness

- INITIAL DOSAGE FOR SEVERE SYMPTOMS:
- 0-2 years of age : 1 dose of both Atropine and Pralidoxime
- 2-10 years of age: 2 doses of both Atropine and Pralidoxime
- >10 years of age: 3 doses of both Atropine and Pralidoxime

INITIAL DOSAGE FOR MILD SYMPTOMS:

- 0-2 years of age : None
- 2-10 years of age: None
- >10 years of age: 1 dose of both Atropine and Pralidoxime

POTENTIAL SIDE EFFECTS:

- Hypertension
- Tachycardia
- Chest pain/angina
- Urine retention

P

CONTRAINDICATIONS:
- None if severe symptoms are present

PRECAUTIONS:
- Use appropriate PPE, including respiratory protection
- Ensure patient decontamination
- Only providers in appropriate PPE should treat patients prior to decontamination

1. Atropine and Pralidoxime may be administered as a single auto-injector (e.g., DuoDote) or as separate auto-injectors (e.g., Mark I Kit).

2. Before administering Atropine and Pralidoxime, the provider must receive training and demonstrate competency in the following:
   a. Pharmacology of the drug
   b. Drug indications
   c. Drug contraindications of
   d. Specific route of drug administration
   e. Manufacturer's instructions

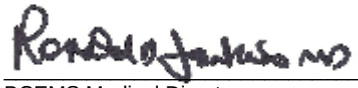
3. Procedure:
   a. Ensure scene safety, proper PPE and initiate decontamination as indicated. Decontamination should include removal of clothing and washing with soap and large amounts of water.
   b. Confirm the patient has or may have been exposed to a nerve agent or organophosphates.
   c. Determine the presence of mild or severe symptoms.
   d. Suction airway as necessary.
   e. Administer high flow oxygen and assist ventilation as necessary.
   f. Explain the procedure to the patient or family, if able.
   g. Confirm the patient's age, if able.
   h. Obtain verbal consent, if able.
   i. Administer Atropine and Pralidoxime.

1.When severe symptoms are present:
- 0-2 years of age: 1 dose
- 2-10 years of age: 2 doses in rapid succession
- >10 years of age: 3 doses in rapid succession

2) When mild symptoms are present **AND patient is >10 years of age**, give 1 dose.

3) If a patient with initially mild symptoms later develops severe symptoms, give Atropine and Pralidoxime:
- 0-2 years of age: 1 dose
- 2-10 years of age: 2 doses in rapid succession
- >10 years of age: 2 additional doses in rapid succession

P



j. Continue your assessment and treatment of the patient, including airway management.
k. If the patient continues to have severe symptoms 10 minutes after receiving Atropine and Pralidoxime, administer additional Atropine per local protocol. Emergency Medical Responders, EMTs and Advanced EMTs may only administer Atropine using an auto-injector.
l. If the patient develops seizures, administer a benzodiazepine (e.g., Diazepam/Valium) per local protocol. Emergency Medical Responders, EMTs and Advanced EMTs may not administer benzodiazepines.
m. At an MCI event, label the patient's forehead to indicate they have received a MARK 1 Kit or DuoDote by writing "MARK 1", "DuoDote". Indicate the number of doses and the time(s) of administration. If using triage tags, document the same information on the triage tag.
n. Continue your assessment and treatment of the patient, including airway management.

4. Drug Administration
a) Determine if you have a Mark 1 Kit or DuoDote.
b) If you have a Mark 1 Kit:
1) Confirm the kit is not expired.
2) Remove the gray safety cap from auto-injector 1 (Atropine – smaller one).
3) Firmly push the black end of the auto-injector against the lateral side of the patient's thigh, midway between waist and knee. The auto-injector may inject through clothing. DO NOT hit buttons or other objects. Make sure pockets are empty.
4) Continue to push firmly until you feel the auto-injector trigger.
5) Hold the auto-injector firmly in place until the medication is injected – 10 seconds.
6) Massage the injection site for several seconds.
7) After the drug has been administered, push the needle against a hard surface to bend the needle back against the auto-injector.
8) Safely store and dispose of the used auto-injector (e.g., biohazard "sharps" container).
9) Repeat the process for auto-injector 2 (Pralidoxime – larger one).
c) If you have DuoDote:
1) Confirm the auto-injector is not expired.
2) Firmly grasp the center of the auto-injector with the green tip pointing down.
3) Pull off the gray safety release.
4) Firmly push the green tip of the auto-injector against the lateral side of the patient's thigh, midway between waist and knee at a 90 degree angle. The auto-injector may inject through clothing. DO NOT hit buttons or other objects. Make sure pockets are empty.
5) Continue to push firmly until you feel the auto-injector trigger.
6) Hold the auto-injector firmly in place until the medication is injected – 10 seconds.
7) Remove the auto-injector from the injection site and look at the green tip. If the needle is visible, the drug has been administered. If the needle is not visible, check to be sure the gray safety release has been removed and then repeat steps 4-6 but push harder in step 4.
8) Massage the injection site for several seconds.
9) After the drug has been administered, push the needle against a hard surface to bend the needle back against the auto-injector.
10) Safely store and dispose of the used auto-injector (e.g., biohazards "sharps" container).

P

Pearls:

The Idaho EMS Bureau has taken extreme caution to ensure all information is accurate and in accordance with professional standards in effect at the time of publication. This protocol must be followed by EMR, EMT and AEMT personnel. This protocol may not be modified by the Medical Director except at the Paramedic level. It is recommended that care be based on the patient's clinical presentation and on authorized policies and guidelines.

Ronald Jackson MD

BCEMS Medical Director

Required protocol for EMR
Atropine - Pralidoxime

Chempack

History
- An unexplained multi-casualty incident (MCI)

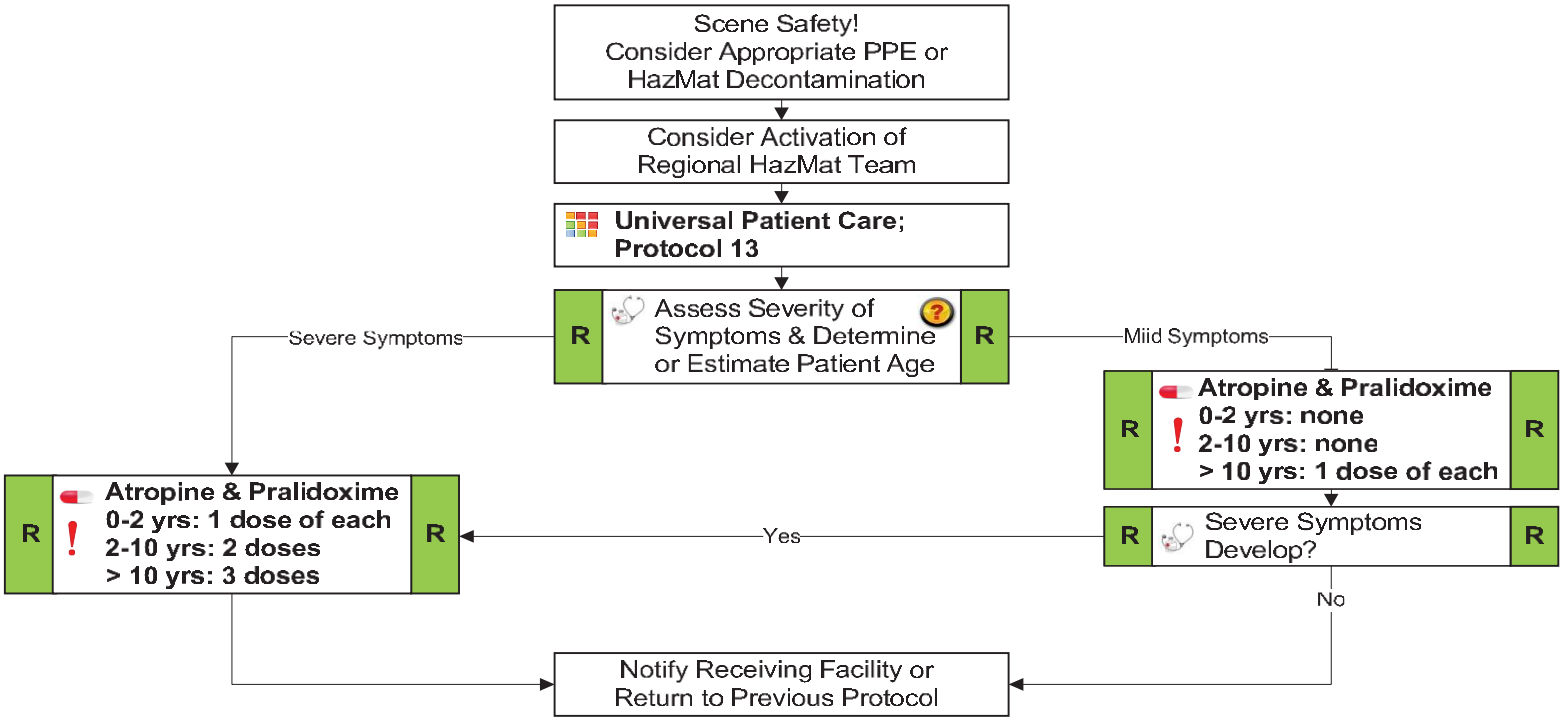
Symptoms of nerve agent toxicity or organophosphate poisoning

Mild Signs & Symptoms
- Blurred vision, miosis (pinpoint pupils)
- Excessive, unexplained teary eyes

Excessive, unexplained rhinitis
- Increased salivation / sudden drooling
- Chest tightness or dyspnea
- Tremors / muscular twitching throughout the body
- Nausea / vomiting
- Unexplained wheezing, coughing or increased airway secretions
- Acute onset of stomach cramps
- Tachycardia or bradycardia

Severe Signs & Symptoms
- Strange or confused behavior
- Severe difficulty breathing or copious amount of secretions from lungs / airway

Severe muscular twitching and general weakness
- Involuntary urination / defecation
- Convulsions
- Unexplained unconsciousness



Pearls
- If more than one dose of a MARK1 Kit or DuoDote are needed, give doses in rapid succession.
- At an MCI event label the patient's forehead to indicate if they have received a MARK 1 Kit or DuoDote by writing "Mark 1" or "DuoDote" as appropriate. Indicate the number of doses and the time(s) of administration as well. If using triage tags, document the information on the tag .
- Auto-inject the lateral side of the patient's thigh, midway between the waist and the knee. Massage the injection site for several seconds.
- The auto-injector may inject through clothing; be careful to NOT hit buttons, zippers, etc. Make sure the patient's pockets are empty.
- Push the needle of the used auto-injector against a hard surface to bend the needle back against the auto-injector.
- Safely store and dispose of the used auto-injector (e.g. biohazard / sharps container).
- If the patient is potentially contaminated, contact the receiving facility to prepare them for possible decontamination.
- Each Chempack Kit contains 600mg Pralidoxime (2-PAM) and 2mg Atropine.

erformance Improvement Suggestions
- Documentation of symptom severity
- Assessment of scene safety

26A – 2013 Chempack Protocol

Ronald Jackson MD
BCEMS Medical Director
Effective: 07/01/19

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

SECTION 9000
PROCEDURES AND SKILLS

CARDIAC PROCEDURES 9030-9039

12 LEAD EKG

Clinical Indications

- Suspected cardiac patient
- Suspected tricyclic overdose
- Electrical injuries
- Syncope
- Suspected hyperkalemia

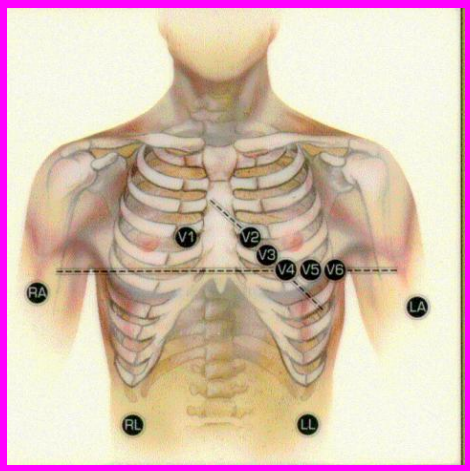
PROCEDURE GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

- If patient is unstable, definitive treatment is the priority. If patient is stable, perform 12-lead EKG.
- Prepare EKG monitor and connect patient cable with electrodes.
- Enter the required patient information (age, etc) into the 12-lead device.
- Expose chest and prep as necessary. Modesty of the patient should be respected.
- Apply leads using the following landmarks:

RA- right arm, LA- left arm, RL- right leg, LL- left leg
V1- 4th intercostal space (ICS) at right sternal border
V2- 4th ICS at left sternal border
V3- Directly between V2 and V4
V4- 5th ICS at midclavicular line
V5- Level with V4 at left anterior axillary line
V6- Level with V5 at left midaxillary line
Instruct patient to remain still, and acquire EKG



P[2,3]

Transmit EKG to medical control if transmission is possible.

- Continue with EKG monitoring if appropriate.
- Evaluate for rate, rhythm and signs of acute ischemia.
- Document the procedure, time and results on the patient care report (PCR). Attach a copy of the 12-lead EKG to the PCR.

- ** Discuss EKG interpretation with Medical Control if MI is suspected **

M

2,3EMT and AEMT providers may perform these procedures if credentialed with the appropriate OM.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

CARDIOPULMONARY RESUSCITATION (CPR)

Clinical Indications

- Basic life support for the patient in cardiac arrest.

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

- Assess the patient's level of responsiveness (shake and shout).
- If no response, call for assistance and get an AED.
- Check for pulse (carotid for adults and older children, brachial for infants) for at least 5 seconds. If no pulse, begin 30 chest compressions based on chart below:

Age	Location	Depth	Rate
Infant	Over sternum, between nipples, 2-3 fingers	1.5 inches (1/3 of the anterior-posterior chest dimension)	100-120/minute
Child	Over sternum, just cephalad from the xyphoid process, heel of one hand	1.5-2 inches (1/3 of the anterior-posterior chest dimension)	100-120/minute
Adult	Over sternum, just cephalad from xyphoid process, hands with interlocking fingers	2-2.4 inches (1/3 of the anterior-posterior chest dimension	100-120/minute

R

- Open the patient's airway with the head-tilt, chin-lift and give two breaths. If the patient may have sustained C-Spine trauma, use the modified jaw thrust while maintaining immobilization of the C-Spine. For infants, positioning the head in the sniffing position is the most effective method of opening the airway. If air movement fails, proceed to the Foreign Body Obstruction Procedure (9010).
- Begin ventilations in the adult.
- Provide no more than 12 breaths per minute with the bag valve mask (BVM). Chest compressions should be provided in an uninterrupted manner. Brief interruptions are allowed for rhythm analysis, defibrillation and performance of procedures.
- For two- person child CPR, administer 2 breaths for every 30 compressions.

- Assist ALS with standard four-lead Cardiac Monitor — **E**
- Depending on rhythm and return of circulation, proceed to appropriate protocols. — **A**
- Continuous quantitative waveform capnography[2,3] is mandatory for intubated patients. — **P**

2,3EMT and AEMT providers may perform these procedures if credentialed with the appropriate OM.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

CARDIAC EXTERNAL PACING

Clinical Indications

- Management of bradycardia unresponsive to Atropine and associated with hypoperfusion

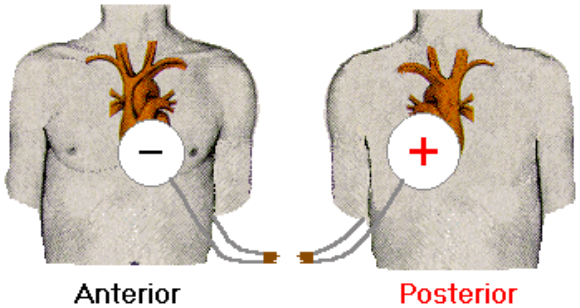
PROCEDURE GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

▪ Assist ALS with standard four-lead Cardiac Monitor	**E**
▪ Assist ALS with pacing pad application.	**A**
▪ Apply defibrillation/pacing pads to chest and back: One pad to left mid chest next to sternum, one pad to mid left posterior chest next to spine. ▪ Rotate selector switch to pacing option. ▪ Adjust heart rate to 80 BPM for an adult and 100 BPM for a child. ▪ Look for pacer spikes on EKG screen. ▪ Slowly increase output until capture of electrical rhythm on monitor is noted. ▪ Check for corresponding pulse to verify capture, and assess vital signs. ▪ If unable to capture at maximal output, stop pacing. ▪ Consider sedation or analgesia for patient discomfort. ▪ Document the dysrhythmia and the response to external pacing with ECG strips in the PCR.	**P**
▪ **Discuss management of patient requiring Cardiac External Pacing with Medical Control *	M

QA Parameters: 100% of patients requiring Cardiac External Pacing.



BCEMS Medical Director
Effective: 07/01/19

CARDIOVERSION

Clinical Indications

- Synchronized Cardioversion for conscious patient with a pulse and symptomatic unstable tachyarrhythmia:
- Rapid atrial fibrillation
- Supraventricular Tachycardia
- Ventricular Tachycardia
- Signs of hypoperfusion (chest pain, hypotension, pulmonary edema, confusion)
- Pulse is detectable/ patient is conscious
- Pulseless patient requires unsynchronized Cardioversion

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

▪ Assess patient and monitor cardiac status. ▪ Administer oxygen as patient condition warrants.	**R**
▪ Assist ALS: Ensure the patient is attached properly to a monitor/defibrillator capable of synchronized Cardioversion. Attach defibrillator/pacing pads to chest and back: One pad to left mid chest next to sternum One pad to mid left posterior chest next to spine ▪ Be prepared for unsynchronized Cardioversion/defibrillation if necessary.	**E**
▪ Paramedics may alternately use paddles with electrode gel or pads rather than defibrillator pads. ▪ Consider the use of pain or sedating medication. ▪ Set energy selection to the appropriate setting (100 joules biphasic or 200 joules monophasic for first attempt). ▪ Set monitor/defibrillator to synchronized Cardioversion mode. ▪ Visually and verbally ascertain that all personnel are clear of patient. ▪ Press and hold the "shock" button to cardiovert. Stay clear of the patient until you are certain that the energy has been delivered. NOTE: There may be a delay between activating the "shock" button and the actual delivery of energy. ▪ Note the patient's response and perform immediate unsynchronized defibrillation if the patient's rhythm has deteriorated into pulseless ventricular tachycardia or ventricular fibrillation, following the procedures for Defibrillation-Manual (9036). ▪ If the patient's condition is unchanged, repeat above steps using escalating energy settings (150, 200 joules biphasic, or 300, 360 joules monophasic). ▪ Repeat until maximum setting is used or efforts succeed. ▪ Note procedural details, response and time in patient care report (PCR).	**P**
▪ ** Consider discussion with Medical Control if Cardioversion if unsuccessful after 2 attempts**	**M**

QA Parameters: 100% of patients requiring Synchronized Cardioversion.

AUTOMATED DEFIBRILLATION (AED)

Clinical Indications

- Automated defibrillation for unconscious patients in cardiac arrest
- Pulseless, Not breathing
- Pulseless patient requires unsynchronized defibrillation
- Patients with a pulse and an organized rhythm can receive synchronized Cardioversion.

PROCEDURE GUIDELINES

R-EMR-	E – EMT BASIC	A-EMTA	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

▪ Assess patient, monitor cardiac status and determine cardiac arrest. ▪ If multiple rescuers are available, one rescuer should provide uninterrupted CPR (9031) while the AED is being prepared for use. ▪ Apply defibrillator pads per manufacturer recommendations. Use alternate placement when implanted devices (pacemakers, AICDs) occupy preferred pad positions. ▪ Remove any medication patches on the chest and wipe off any residue. ▪ If necessary, connect defibrillator leads: white to the anterior chest and the red to the posterior pad. Activate AED for analysis of rhythm. Stop CPR and clear the patient for rhythm analysis. Keep interruption in CPR as brief as possible. ▪ Defibrillate if appropriate by depressing the "shock" button. Assertively state "CLEAR" and visualize that no one, including yourself, is in contact with the patient prior to defibrillation. ▪ Begin CPR (chest compressions and ventilations) immediately after the delivery of the defibrillation. ▪ After two minutes of CPR, analyze rhythm and defibrillate if indicated. Repeat every 2 minutes. If "no shock advised" appears, perform CPR for two minutes and reanalyze. ▪ Transport and continue treatment as indicated. ▪ Note procedural details, response and time in patient care report (PCR). 	R
▪ ** Consider discussion with Medical Control if defibrillation is unsuccessful after 2 attempts**	M

Pearls:

Keep interruptions of CPR as brief as possible. Adequate CPR is key to successful resuscitation.
Age less than 8 years: use pediatric pads.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

DEFIBRILLATION- MANUAL

Clinical Indications

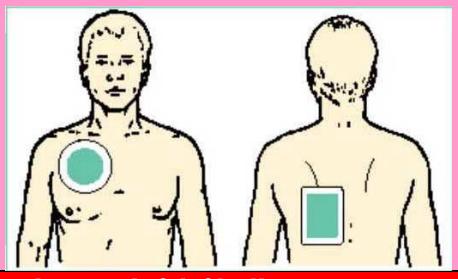
- Defibrillation for patients in cardiac arrest with ventricular fibrillation or pulseless tachycardia
- Pulseless, not breathing
- Pulseless patient requires unsynchronized defibrillation.
- Patients with an organized rhythm can receive synchronized Cardioversion.

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

▪ Assess patient, monitor cardiac status and determine cardiac arrest and need for defibrillation. ▪ If multiple rescuers are available, one rescuer should provide uninterrupted chest compressions (CPR- 9031) while the defibrillator is being prepared for use.	**R**
▪ Assist ALS: Apply defibrillator pads to patient's chest: One pad to left mid chest next to sternum, one pad to mid left posterior chest next to spine.	**E**
▪ Alternately apply appropriate conductive agent and apply paddles to right of sternum at 2nd intercostal space (ICS) and at the left anterior axillary line at the 5th ICS. ▪ Set the appropriate energy level. Charge the defibrillator to the selected energy level (200 joules first attempt suggested). Continue CPR while the defibrillator is charging. ▪ If using paddles, assure proper contact by applying 25 pounds of pressure on each paddle. ▪ **Hold compressions and assertively state "CLEAR" and visualize that no one, including yourself, is in contact with the patient prior to defibrillation.** ▪ Deliver the shock by depressing the discharge buttons when using paddles, or the "shock" button for defibrillator pads. ▪ Immediately resume CPR (chest compressions and ventilations) after defibrillation. ▪ After two minutes of CPR, analyze rhythm and check for pulse. Repeat every 2 minutes as indicated by patient response and ECG rhythm. Transport; continue treatment as indicated. ▪ Note procedural details, response and time in patient care report (PCR).	**P**
▪ ** Consider discussion with Medical Control if defibrillation is unsuccessful after 2 attempts**	**M**



Pearls:

Age less than 8 use pediatric pads. Keep interruptions of CPR as brief as possible. Adequate CPR is the key to successful resuscitation.

Ronald Jackson MD

BCEMS Medical Director

REPERFUSION CHECKLIST

Clinical Indications

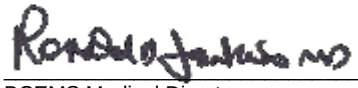
- Checklist to complete when primary thrombolytic therapy might be anticipated for stroke or STEMI.

PROCEDURE GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

▪ Perform 12 lead ECG to identify an acute ST-elevation myocardial infarction (STEMI). **OR** ▪ Perform the Cincinnati Stroke Scale Screening Tool to identify an acute stroke ▪ **Complete the Reperfusion Checklist to identify any contraindications to fibrinolysis. Where appropriate, *circle* the contraindication.** ____Yes ____No Onset of symptoms > 3 hrs for stroke or > 6 hrs for STEMI. *List time*___ _____Yes ____No Systolic blood pressure > 180 mm Hg. *List*_____ _____Yes ____No Diastolic blood pressure > 110 mm Hg. *List*_____ _____Yes ____No Right vs. left arm blood pressure difference of > 15 mm Hg. *List*_____ _____Yes ____No History of structural CNS disease (tumors, masses, hemorrhage, etc.) _____Yes ____No Significant closed head injury or facial trauma within the previous 3 months. _____Yes ____No Recent (within 6 weeks) major trauma, surgery, (including laser eye surgery, gastrointestinal bleeding, stroke or severe genital-urinary bleeding. _____Yes ____No Bleeding or clotting disorders, or currently taking blood thinners (Coumadin, Warfarin, Plavix, Effient, Heparin, or Lovenox). _____Yes ____No CPR performed for more than 10 minutes. _____Yes ____No Current pregnancy. _____Yes ____No Serious systemic diseases such as advanced or terminal cancer or severe liver or kidney disease. _____Yes ____No Identify if the patient is currently in heart failure or cardiogenic shock (percutaneous intervention may be more effective**).** Look for pulmonary edema (extensive pulmonary rales halfway up lung fields) or signs of hypoperfusion (cool, clammy or hypotensive). ▪ If any contraindications checked YES are noted using the checklist, and acute stroke or acute STEMI is confirmed by ECG, activate the EMS Stroke plan or STEMI plan for patients ineligible for thrombolysis, or for patients where primary coronary intervention is planned when a transport time to a cath capable facility is <90 minutes. ▪ Note procedural details, responses and time in patient care report (PCR).	**P**
▪ ** Contact Medical Control for all patients with acute stroke or acute STEMI when either thrombolytic therapy or direct intervention are planned.**	**M**



BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

SECTION 9000
PROCEDURES AND SKILLS

MEDICAL PROCEDURES 9040-9049

Procedure: Blood Glucose Analysis

Procedure

Clinical Indications:

Patients with suspected hypoglycemia (Known Diabetic, Abnormal mental status, Sweating with rapid heart rate, Seizures, Focal neurological deficit, Behavioral changes.)

Procedure:

Prepare the device according to the manufacturer's instructions
Explain the procedure to the patient
Obtain verbal consent, if possible, from patient or family
Use body substance isolation procedures
Cleanse the puncture site prior to obtaining blood sample
Obtain a drop of blood
Apply the blood to the test strip according to the manufacturer's instructions
Obtain and record the reading from the device
Apply a dressing to the patient's puncture site
Properly dispose of test supplies
Continue your assessment and treatment of the patient

Skills Maintenance Suggestions:

Calibrate a glucometer and perform a Blood Glucose Analysis on a periodic basis

Procedure
6

DECONTAMINATION

Clinical Indications

- Any patient who may have been exposed to significant hazardous materials, including chemical or radiological weapons.

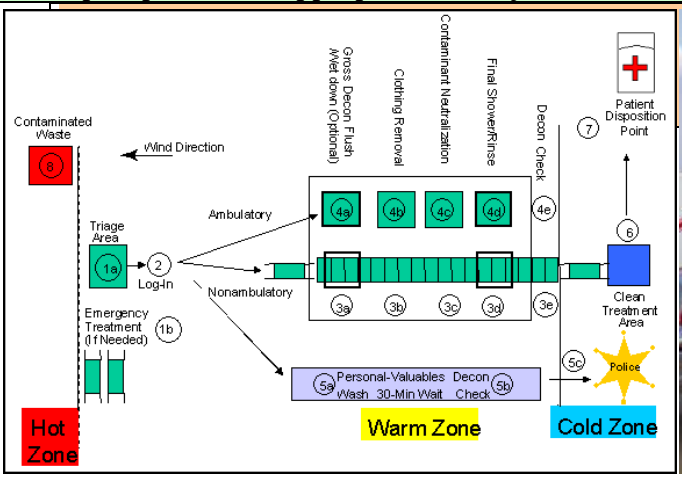
PROCEDURE GUIDELINES

R- EMR	E - EMT	AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

- In coordination with Hazmat and other Emergency Management personnel, establish hot, warm and cold zones of operation.
- Ensure that personnel assigned to operate within each zone have proper personal protective equipment.
- In coordination with other public safety personnel, assure that each patient from the hot zone undergoes appropriate initial decontamination. This is specific to each incident; such decontamination may include: removal of patients from the Hot Zone, simple removal of clothing, irrigation of eyes, or passage through high-volume water bath (e.g. between two fire apparatus) for patients contaminated with liquids or certain solids. Patients exposed to gases, vapors, and powders often will not require this step as it may unnecessarily delay treatment and/or increase dermal absorption of the agent(s).
- Initial triage of patients should occur after initial decontamination. Immediate life threats should be addressed prior to technical decontamination.
- Assist patients with technical decontamination (unless contraindicated). This may include removal of all clothing and gentle cleansing with soap and water. All body areas should be thoroughly cleansed, although overly harsh scrubbing which could break the skin should be avoided.
- Place triage identification on each patient. Match triage information with each patient's personal belongings which were removed during technical decontamination. Preserve these personal affects for law enforcement. Evaluate all patients for environmental illness.
- Transport patients to appropriate facility after discussion with Medical Control.

E



Sample of a Casualty Decontamination-Corridor Layout

Decontamination Vehicle

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

GASTRIC TUBE INSERTION

Clinical Indications

- Gastric decompression in intubated patients or for administration of activated charcoal in patients with altered mental status.

PROCEDURE GUIDELINES

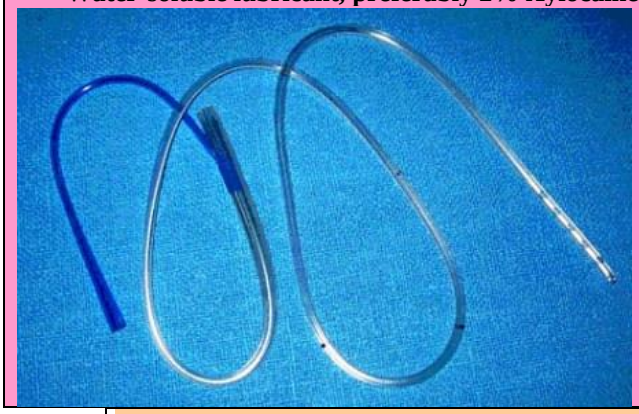
R- EMR	E-EMT	A-EMTA	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

- Estimate insertion length by superimposing the tube over the body from the nose to the stomach.
- Flex the neck if not contraindicated to facilitate esophageal passage.
- Liberally lubricate the distal end of the tube (water-soluble lubricant, preferably 2% Xylocaine jelly) and pass through patient's nostril along the floor of the nasal passage. Do not orient the tip upward into the turbinates. This increases the difficulty of the insertion and may cause bleeding.
- In the setting of an unconscious, intubated patient or a patient with facial trauma, oral insertion of the tube may be considered or preferred.
- Continue to advance the tube gently until the appropriate distance is reached.
- Confirm placement by injecting 20 cc of air and auscultate for the swish or bubbling of the air over the stomach. Additionally, aspirate gastric contents to confirm proper placement.
- Secure the tube.
- Decompress the stomach of air and food either by connecting the tube to suction or manually aspirating with the large catheter tip syringe.
- Document the procedure, time, and result on the patient care report (PCR).
- **Equipment needed:**

Personal protective equipment
NG/OG tube
Catheter tip irrigation 60ml syringe
Water-soluble lubricant, preferably 2% Xylocaine jelly
Adhesive tape
Suction device
Drainage bag
Stethoscope

P



Nasogastric tubes are contraindicated in the presence of severe facial trauma, due to the possibility of inserting the tube intracranially. In this instance, an orogastric tube may be inserted.
The main complications of NG tube insertion include aspiration and tissue trauma. Placement of the catheter can induce gagging or vomiting; therefore suction should always be ready to use in that case.

Ronald Jackson MD

EYE IRRIGATION

Clinical Indications

Clinical Indications:
- Patients with chemical exposure to eye
- Patients with obvious non-penetrating foreign body to eye

Contraindications:
- Patients with penetrating foreign body injury to eye (suspected globe injury)

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

▪ Assess the patient, obtain baseline vitals and consider transport plan based on general impression. ▪ Have patient describe degree of visual changes. ▪ Remove contacts lenses if present. ▪ Gather equipment: sterile water or normal saline solution, and sterile dressings.	**R**
▪ Flood the eyes with solution from medial (nasal) corner of the eye to the lateral corner. o Pour water directly from sterile bottle. o If available, use IV fluid and tubing directing the end of IV tubing to the eye. o Use a nasal cannula to flush both eyes simultaneously by attaching to IV tubing and placing over the bridge of the nose so the prongs point to the medial corner of the eye. ▪ If a single eye is affected avoid contamination of unaffected eye. ▪ Continue flushing the patient's eyes until arrival at hospital or instructed to stop by Medical Control. ▪ Protect the patient from becoming wet during the irrigation process. ▪ After washing eye(s), cover both eyes with sterile moistened pads. ▪ If the patient complains of renewed burning sensation or irritation continue irrigation. ▪ Document the process in writing on the patient care report (PCR). ▪ Identify the substance in eye(s) or transport the label or container with the patient.	E
▪ **MORGAN LENS INSERTION:** ▪ After a topical anesthetic is applied (if available) attach the Morgan Lens to the administration set. ▪ Attach to solution and begin flow. While minimal flow is released, have the patient look down and insert the lens under the upper lid. Then, have the patient look up, retract the lower lid, and drop the lens in place. ▪ Adjust the flow to the desired rate and absorb the outflow with towels. ▪ Alternately, you may attach it to a syringe for a smaller, more controlled application. ▪ Note procedural details, response and time in patient care report (PCR). 	**P**

Using the Morgan Lens is only a paramedic level procedure.

PHYSICAL RESTRAINTS

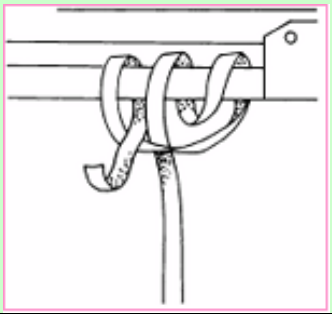
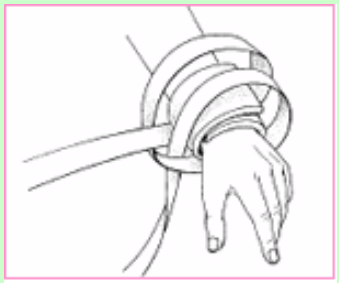
Clinical Indications

- Patient at risk to harm himself or herself or crew
- Patient at risk to remove life-saving equipment, tubes, IVs, etc.
- Combative or confused patients
- Determine if alternate techniques might be effective before restraints are used

PROCEDURE GUIDELINES

R- EMR	E–EMT	A-EMTA	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

▪ Ensure that there are sufficient personnel available to physically restrain the patient safely. ▪ Request law enforcement assistance if necessary. ▪ Restrain the patient in a lateral or supine position. No devices such as backboards, splints or other devices will be put on top of the patient. The patient will never be restrained in the prone position. The patient must be under constant observation by the EMS crew at all times. This includes direct visualization of the patient as well as cardiac and pulse oximetry monitoring if the patient has been sedated. ▪ The extremities that are restrained will have a circulation check at least every 15 minutes, and ideally every 5 minutes. The first of these checks should occur as soon after placement of the restraints as possible. This MUST be documented in the PCR. ▪ Documentation in the PCR should include the reason for the use of restraints, the type of restraints used, and the time restraints were placed. Also document circulation checks and their time, any injuries sustained as a result of restraint, and behavior and or mental status after use of restraints. If the above actions are unsuccessful, or if the patient is resisting the restraints, consider contacting ALS for administering appropriate medications. ▪ If a patient is restrained by law enforcement personnel with handcuffs or other devices EMS personnel can not remove, a law enforcement officer must accompany the patient to the hospital in the transporting EMS vehicle.	**E**
  	
▪ ****Contact Medical Control to discuss physical or chemical restraints in combative patients.****	**M**

Any patient, who may harm himself, herself or others, may be gently restrained to prevent injury to the patient or crew. This restraint must be in a humane manner and used only as a last resort.
Other means to prevent injury to the patient or crew must be attempted first. These efforts could include reality orientation, distraction techniques, or other less restrictive therapeutic means.
QA Parameters: 100% of patients with respiratory distress while restrained.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

TEMPERATURE MEASUREMENT

Clinical Indications

- Suspected infection, hypothermia, hyperthermia
- Cold or mottled skin; warm or hot skin temperature
- Evidence for sepsis
- Recent cardiac arrest; may be helpful in post resuscitation assessment

PROCEDURE GUIDELINES

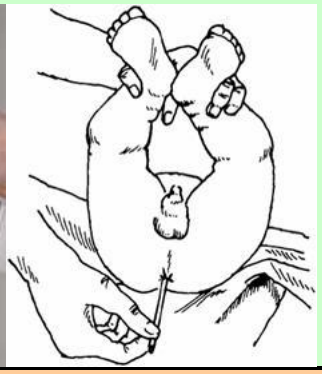
R- EMR	E - EMT	AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

- Adult patients: If conscious cooperative and in no respiratory distress, an oral temperature is preferred. For infants or adults that do not meet the criteria above, a rectal temperature is preferred.
- **ORAL TEMPERATURE:** To obtain an oral temperature, ensure the patient has no significant oral trauma and place the thermometer under the patient's tongue with appropriate sterile covering.
- Have the patient seal their mouth closed around the thermometer.
- If using the electric thermometer, leave the device in place until there is indication that an accurate temperature has been recorded (per the "beep" or other indicator specific to that device. If using a traditional thermometer, leave it in place until there is no change in the reading for at least 30 seconds (usually 2-3 minutes)
- Record time, temperature, method and scale (C° or F°) in PCR.
- **RECTAL TEMPERATURE**: Prior to obtaining a rectal temperature, cover the thermometer with an appropriate sterile cover, apply lubricant, and insert into rectum no more than 1-2 cm beyond the external anal sphincter.
- If using the electric thermometer, leave the device in place until there is indication that an accurate temperature has been recorded (per the "beep" or other indicator specific to that device. If using a traditional thermometer, leave it in place until there is no change in the reading for at least 30 seconds (usually 2-3 minutes)
- Record time, temperature, method and scale (C° or F°) in PCR.

E





A rectal or ear (tympanic membrane) temperature reading is 0.5 to 1°F (0.3 to 0.6°C) higher than an oral temperature reading. A temperature taken in the armpit is 0.5 to 1°F (0.3 to 0.6°C) lower than an oral temperature reading.
In most adults, an oral temperature above 100F or a rectal or ear temperature above 101F is considered a fever. A child has a fever when his or her rectal temperature is 100.4F or higher.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

SECTION 9000
PROCEDURES AND SKILLS

OB-GYN PROCEDURES 9050-9059

CHILDBIRTH

Clinical Indications

- Imminent delivery with crowning

PROCEDURE GUIDELINES

R- EMR	E-EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

1. Most babies deliver themselves with no assistance; however, controlling an abrupt delivery will help prevent injury to the mother and infant. Remember to don protective gloves, mask, eyewear and gown 2. Allow the mother to push the infant's head out of the vaginal opening. Keep a gloved hand near the crowning head to keep a control on an abrupt delivery. Reminder: the baby is VERY SLIPPERY! 3. With one finger, gently feel the infant's neck for the umbilical cord. If it is there, gently lift it over the baby's head. Caution: Do not pull hard on the cord as it could avulse and cause a severe hemorrhage. If the cord is wrapped around the baby's neck, gently slip it over the shoulder and head **(EMT or Paramedic level procedure)**. If this cannot be done because it is tightly wrapped, carefully place two umbilical cord clamps approximately 2 inches apart and cut the cord between the clamps **(EMT or Paramedic level procedure).** 4. As soon as the baby's head clears the vagina, instruct the mother to stop pushing. While supporting the baby's head, using a bulb syringe, suction the baby's mouth, then nose. If meconium stained fluid is noted, suction the mouth, nares and pharynx. If thick "pea soup" meconium-staining is present and noted at the vocal cords, the meconium aspirator **(AEMT and Paramedic skill)** will be needed. See Airway; Suctioning-Advanced (9014). 5. Have the mother resume pushing as you support the baby's head as it rotates. Gently guide the baby's head downward to allow delivery of the upper shoulder. Gently guide the baby's body upward to allow delivery of the lower shoulder. Once head and shoulders are delivered, the rest of the body will deliver rapidly. Be prepared to support the baby's body as it emerges. Babies are **VERY SLIPPERY!!** 6. Do not hold the baby higher than the uterus or womb prior to clamping the cord because it may lead to a decrease in the infant's blood volume (due to transfusion of blood from the baby to the placenta). Do not hold baby too low as excess blood may drain from the placenta and cause a fluid overload. 7. Supporting the baby, place the first clamp 8 inches from the baby. Place the second clamp approximately 2 inches above the first clamp. Carefully cut the cord between the two clamps. Be sure to assess the cord (portion attached to the infant) for any active bleeding. If active bleeding is noted, another clamp will need to be placed beside the first clamp. 8. Wipe the baby's face clean of blood and mucus; repeat suctioning the mouth and nose with the bulb syringe. Dry the infant thoroughly and then cover with warm, dry blankets/towels and position the baby on its side with its head and upper body lower than its lower body (helps facilitate fluid drainage). 9. The placenta should delivery naturally within 20 minutes of the infant's birth. DO NOT pull on the umbilical cord to hurry the placenta delivery. 10. An APGAR (A1) score must be completed on the infant at 1 minute and 5 minutes after delivery. Document the time of birth and procedure on the patient record. **Abnormal, multiple deliveries, and pre-term deliveries, require rapid transport and contact with Medical Control.** 11. Follow Newly Born Guidelines (7083).	**R**
▪ Assist with advanced suctioning of newborn for thick meconium staining.	**A**

If sores or lesions are noted on the genital area when birth is imminent, with your gloved hands, try to keep the newborn from contacting the sores/lesions during delivery. Be sure to ask the patient if she is being treated for the sores.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

SECTION 9000
PROCEDURES AND SKILLS

TRAUMA PROCEDURES 9060-9069

CHEST DECOMPRESSION

Clinical Indications

- Patients with hypotension (SBP < 90 mmHg), clinical signs of shock, and at least one of the following signs:
  Jugular venous distention.
  Tracheal deviation away from the side of the injury (often a late sign).
  Absent or decreased breath sounds on the affected side.
  Hyper-resonance to percussion on the affected side.
  Increased resistance when ventilating a patient.
- Patients in traumatic arrest with chest or abdominal trauma for whom resuscitation is indicated. These patients may require bilateral chest decompression even in the absence of the signs noted above.

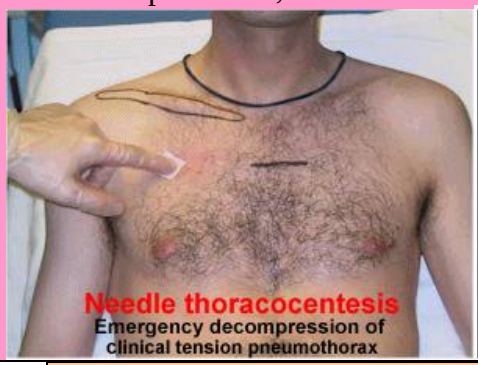
TREATMENT GUIDELINES

R-EMR	E–EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

- Don personal protective equipment (gloves, eye protection, etc.).
- Administer high flow Oxygen.
- Identify and prep the site: Locate the second intercostal space in the mid-clavicular line on the same side as the pneumothorax. If unable to place anteriorly, lateral placement may be used at the fourth ICS in the mid-axillary line.
  Prepare the site with povidone-iodine ointment or solution.
- Insert the catheter (14 gauge for adults) into the skin over the third rib and direct it just over the top of the rib (superior border) into the interspace.
- Advance the catheter through the parietal pleura until a “pop” is felt, and air or blood exits under pressure through the catheter, then advance the catheter only to chest wall.
- Remove the needle, leaving the plastic catheter in place.
- Secure the catheter hub to the chest wall with dressings and tape.
- Attach a Heimlich valve to the catheter to provide an out let for air without allowing new air to be introduced, and secure.
- Document procedure, result and needle placement location in PCR.

P




QA Parameters: 100% of patients receiving needle Chest Decompression.

PELVIC SLING

Clinical Indications

- Immobilization of the pelvis for transport, due to suspected pelvic fracture. Patients with a history of high energy, multi-system trauma i.e.: motor vehicle accidents, pedestrian accidents, crush injuries, and falls are at greater risk.
- Unrestrained movement of fractured pelvic bones following significant trauma can cause internal hemorrhage and death. Any motion between the torso and legs can cause severe shifting of the fractured pelvis, potentially dislodging any clotting already in place.
- MAST pants can stabilize a broken pelvis, but over or under inflation of MAST will compromise their effectiveness. There is no way to know when the pressure is right for pelvic stabilization.
- The Pelvic Sling was designed to apply the ideal amount of force to bring the pelvic ring back into alignment. Like the MAST, the Pelvic Sling uses circumferential pressure to squeeze the pelvis uniformly. The Sling's major advantage is that its buckle has a definite stop with a positive click at exactly the optimal calculated pressure.

PROCEDURE GUIDELINES

R- EMR	E – EMT BASIC	A-EMTA	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

- Clothing should be removed before placing the Sling. *(It is designed to stay in place until the patient goes to surgery).*
- Three sizes are available to fit patients
  Large (>200 pounds)
  Standard (110 – 200 pounds): *The standard size can be field modified to fit smaller patients, just cut off the plastic slide pad and use the Velcro that is under it.*
  Small (80-120 pounds)
- The Sling wraps the hips and buttocks, not the waist. Be sure you place the top of the sling no higher than the anterior superior spine of the femur. Try to make sure the buckle is centered over the alignment of the pubic symphasis
- The Sling is a single-use, disposable item.
- **Once the sling is in place, don't remove it.[2,3,4]**

E[2-4]

Pelvic sling placement is contraindicated for patients under 80 pounds.
Like a C-collar, the Pelvic Sling should be applied to any patient with high speed or other significant trauma suspicious for pelvic injury.
Even if instability of the pelvis is not obvious on exam, mechanism of injury alone may indicate use of the Sling.

[2]EMT, [3]AEMT and [4]EMT-P providers may perform these procedures if credentialed with the appropriate OM.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

SPINAL IMMOBILIZATION

Clinical Indications

- Patient has been determined to have significant risk of C- Spine injury
- Determine if available equipment will work for the patient

PROCEDURE GUIDELINES

R- EMR	E – EMT BASIC	A-EMTA	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

- Explain the procedure to the patient.
- Place the patient in an appropriately sized C-collar while maintaining in-line stabilization of the C-spine. This stabilization, to be provided by a second provider, should not involve traction or tension but rather simply maintaining the head in a neutral, midline position while the first provider applies the collar.
- Once the collar is secure, the second provider should still maintain their position to ensure stabilization (the collar is helpful but will not do the job by itself.)
- Place the patient on a long spine board with the log-roll technique if the patient is supine or prone. For the patient in a vehicle or otherwise unable to be placed prone or supine, place them on a backboard by the safest method available that allows maintenance of in-line spinal stability. Stabilize the patient with supportive soft blocks, straps or other similar devices. Once the head is secured to the backboard, the second provider may release manual in-line stabilization.
- NOTE: Some patients, due to size or age, will not be able to be immobilized through in-line stabilization with standard backboards and C-collars. Never force a patient into a non-neutral position to immobilize them. Such situations may require a second provider to maintain manual stabilization throughout transport to the receiving facility.

E[1]

[1]EMR providers may perform these procedures if credentialed with the appropriate OM.

A combination of a rigid cervical collar and supportive blocks on a backboard with straps is very effective in limiting motion of the cervical spine and is recommended. Soft blocks should be the last piece of stabilization equipment applied. Patients that are combative, particularly young children, may be at greater risk for further injury by forced immobilization until properly sedated or more calm.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

SPLINTING

Clinical Indications

- Immobilization of an extremity for transport, either due to suspected fracture, sprain, or injury.

PROCEDURE GUIDELINES

R- EMR	E – EMT BASIC	A-EMTA	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

▪ Assess and document pulses, sensation, and motor function prior to placement of the splint. If no pulses are present and a fracture is suspected, consider reduction of the fracture prior to splinting. ▪ Remove all clothing from the extremity. ▪ Select a site to secure the splint both proximal and distal to the area of suspected injury, or the area where the splint will be placed. Do not secure the splint directly over the injury. ▪ Place the splint and secure with Velcro, straps, or bandage material (i.e. Kling, Kerlex, cloth bandage, etc.) depending on the splint manufacturer and design. ▪ Document pulses, sensation, and motor function after placement of the splint. If there has been any deterioration in any of these parameters, remove the splint and reassess. ▪ If a femur fracture is suspected and there is no evidence of pelvic fracture or instability, the following procedures may be followed for placement of a femoral traction splint **(Traction splinting is not an EMR procedure)**: 1) Assess neurovascular function. 2) Place the ankle device over the ankle. 3) Place the proximal end of the traction splint on the posterior side of the affected extremity, being careful to avoid placing too much pressure on genitalia or open wounds. **Make certain the splint extends proximal to the suspected fracture.** If the splint will not extend in such a manner, reassess possible involvement of the pelvis. 4) Extend the distal end of the splint at least 6 inches beyond the foot. 5) Attach the ankle device to the traction crank. 6) Twist until moderate resistance is met. 7) Reassess alignment, pulses, sensation, and motor function. If there has been deterioration, release traction and reassess. ▪ Document the time, type of splint, and the pre and post assessment of pulse, sensation, and motor function in the patient care report (PCR). ▪ NOTE: Some patients, due to size or age, will not be able to be immobilized through in-line stabilization with standard backboards and C-collars. Never force a patient into a non-neutral position to immobilize them. Such situations may require a second provider to maintain manual stabilization throughout transport to the receiving facility.	**E[1]**

Traction splint

vacuum splints for extremities

[1]EMR providers may perform these procedures (excluding traction splint placement) if credentialed with the appropriate OM.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

TRAUMA TOURNIQUET

Clinical Indications and Contraindications

- Life threatening extremity hemorrhage that cannot be controlled by other means.
- Serious or life threatening hemorrhage and tactical considerations prevent the use of standard hemorrhage control techniques.
- Trauma tourniquets are contraindicated for: non-extremity hemorrhage and proximal extremity location where tourniquet application is not practical.

PROCEDURE GUIDELINES

R- EMR	E – EMT BASIC	A-EMTA	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

▪ Place tourniquet proximal to wound. ▪ Tighten per manufacturer instructions until hemorrhage stops and/or distal pulses in affected extremity disappear. ▪ Secure tourniquet per manufacturer instructions. ▪ Note time of tourniquet application and communicate this to receiving care providers. ▪ Dress wounds per standard wound care protocol. ▪ If delayed or prolonged transport and tourniquet application time is > 45 minutes, consider reattempting standard hemorrhage control techniques and removing tourniquet.	**R**

Combat Application Tourniquet (blue trainer)

Combat Application Tourniquet (rescue orange)

Tourniquet controlled arterial bleed

Tourniquet application

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

SHOULDER DISLOCATION REDUCTION

Clinical Indications

- Management of simple shoulder joint dislocation in the instance of loss of distal pulses or prolonged time to facility arrival. This protocol applies to dislocations of the shoulder resulting from an indirect force; all other potential dislocations should be treated as one would treat any other potentially unstable joint injury (i.e. splint in a position that maintains stability and neurovascular function while facilitating transport).

PROCEDURE GUIDELINES

R-EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

▪ Monitor vitals and assess for distal pulses and signs of circulatory compromise.	**E**
▪ Check and document finger motion and sensation over the fingers and deltoid region of the affected side. ▪ With the patient in the supine position, and while sitting adjacent to the dislocated shoulder, apply gentle traction to the arm to overcome muscle spasm. Gradually abduct and externally rotate the arm until it is at a 90-degree angle toward the patient's body. This is most easily achieved by keeping the elbow in the 90 degrees of flexion throughout the maneuver. Hold the arm in this position ("baseball throwing position") and maintain traction until the dislocation has been reduced. ▪ An alternative method of reduction takes advantage of gravity. Ten pounds is secured to the patient's arm while he/she is lying face down with the arm hanging unsupported. This process can be facilitated if the rescuer stabilizes the upper portion of the scapula with one hand while rotating the lower tip medially with the other. Reassess and treat in the same fashion after the reduction is complete. ▪ Once either the dislocation is reduced or the rescuer decides to discontinue reduction attempts, adduct the humerus so that the elbow is alongside the body. Then internally rotate the arm across the body and sling and swathe. ▪ Reassess and document distal neurovascular status. ▪ Transport patient to the appropriate facility.	**A[2]**
▪ Consider sedation or analgesia for patient discomfort.	**P**
▪ . **Discuss any ongoing neurovascular compromise with Medical Control *	M

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.

A history confirming that there has been no direct injury to the affected joint and an examination with findings consistent with a dislocation must be obtained prior to treatment. The following procedures should be stopped if pain increases and/or resistance are encountered.

QA Parameters: 100% of patients requiring shoulder dislocation reduction.

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

SECTION 9000
PROCEDURES AND SKILLS

VASCULAR ACCESS PROCEDURES 9070-9079

VENOUS ACCESS- BLOOD DRAW

Clinical Indications

- Collection of a patient's blood for laboratory analysis**.**
- Collection of blood for alcohol analysis or drug screening on the request of law enforcement. These "legal" blood draws will only be performed by EMS providers on cooperative persons. Unconscious persons and uncooperative or belligerent persons will be referred to the Emergency department for blood draws.

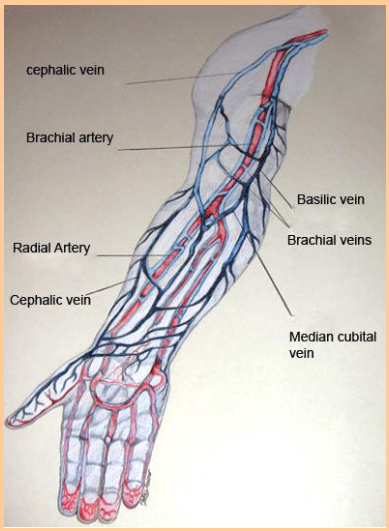
PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

▪ Utilize universal precautions as per OSHA. ▪ Select vein and prep as usual. Avoid any alcohol prep for legal blood draws. ▪ Select appropriate blood-drawing devices. ▪ Draw appropriate tubes of blood for lab testing. ▪ For legal blood draws, a specific kit provided by law enforcement will be utilized. ▪ Assure that the blood samples are labeled with the correct information (a minimum of the patients name, along with the date and time the sample was collected). ▪ Deliver the blood tubes to the appropriate individual at the hospital or to law enforcement, as applicable.	**P[2,3]**

[2]EMT and [3]AEMT providers may perform these procedures if credentialed with the appropriate OM.



Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

VENOUS ACCESS- EXISTING CATHETERS

Clinical Indications

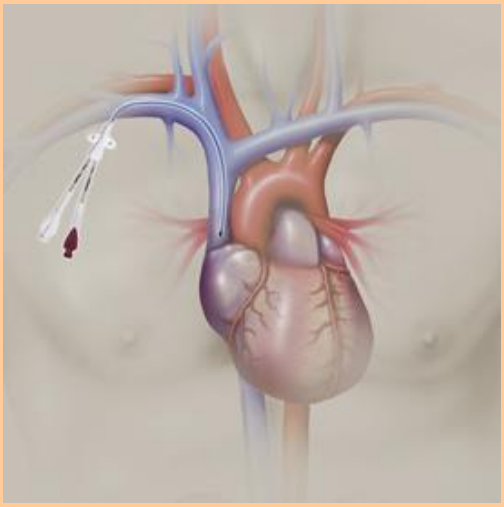
- Inability to obtain adequate peripheral access.
- Access of an existing venous catheter for blood draw, medication or fluid administration.
- Central venous access in a patient in cardiac arrest with an existing central venous catheter.

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

▪ Clean the port of the peripheral or central venous catheter with an alcohol wipe. ▪ Using sterile technique, withdraw 5 cc of blood and discard syringe in sharps container. Withdraw additional blood at that time if needed for blood lab work. ▪ Using 5cc of normal saline, access the port with sterile technique and gently attempt to flush the saline. Always aspirate first to visualize the blood/saline interface, and to insure that air is not injected. ▪ If there is no resistance to injection, no evidence of infiltration (e.g., no subcutaneous collection of fluid), and no pain experienced by the patient, proceed to next step. ▪ If there is resistance, evidence of infiltration, pain experienced by the patient, or any concern that the catheter may be clotted or dislodged, do not use the catheter. ▪ Begin administration of medications or IV fluids slowly and observe for any signs of infiltration. If difficulties are encountered, stop the infusion and reassess. ▪ Record procedure, any complications, and fluids/medications administered in the Patient Care Report (PCR).	**A**



Central venous double lumen catheter

Drawing blood from a PICC (Peripherally inserted central catheter) line

VENOUS ACCESS- PERIPHERAL CATHETER INSERTION

Clinical Indications

- Any patient where intravenous access is indicated (significant trauma or mechanism, emergent or potentially emergent medical condition).
- **Clinical considerations:**
  1. Saline locks may be used as an alternative to an IV tubing and IV fluid in every protocol at the discretion of the ALS provider.
  2. Paramedics can use intraosseous access (Guideline #9074) where threat to life exists.
  3. Use the largest catheter bore necessary based upon the patient's condition and size of veins.

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

▪ Wash hands, use gloves and follow body substance isolation guidelines (1031). ▪ Inspect the IV solution for expiration date, cloudiness, discoloration, leaks, or particles. ▪ Connect IV tubing to the solution in a sterile manner. Fill the drip chamber half full and then flush the tubing, bleeding all air bubbles from the line. ▪ Place a tourniquet around the patient's extremity to restrict venous flow only. ▪ Select a vein and an appropriate gauge catheter for the vein and the patient's condition. ▪ Prep the skin with an antiseptic solution. ▪ Insert the needle with the bevel up into the skin in a steady, deliberate motion until the bloody flashback is visualized in the catheter. ▪ Advance the catheter into the vein. **Never** reinsert the needle through the catheter. Dispose of the needle into the proper container without recapping. ▪ Draw blood samples when appropriate. ▪ Remove the tourniquet and connect the IV tubing or saline lock. ▪ Open the IV to assure free flow of the fluid and then adjust the flow rate as per protocol or as clinically indicated. ▪ Cover the site with a sterile dressing and secure the IV and tubing. ▪ Label the IV with date and time, catheter gauge, and initials of the person starting the IV. ▪ Document the procedure, time and result (success) on/with the patient care report (PCR).	**A**[2]

[2]EMT providers may perform these skills if trained and credentialed with the appropriate OM.



Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

INTRAOSSEOUS LINE PLACEMENT

Clinical Indications and Contraindications

- **Clinical Indications:**
  Patients where rapid, regular IV access is unavailable with any of the following: Cardiac Arrest, multisystem trauma with severe hypovolemia, severe dehydration with vascular collapse, loss of consciousness, respiratory failure/arrest.
- **Contraindications:**
  Fracture proximal to proposed intraosseous site, history of Osteogenesis Imperfecta, current or prior infection at proposed intraosseous site, previous intraosseous insertion or joint replacement at the selected site.

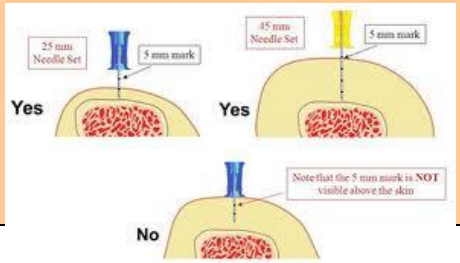
TREATMENT GUIDELINES

R-EMR	E–EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

▪ Don personal protective equipment (gloves, eye protection, etc.). ▪ Identify anteromedial aspect of the proximal tibia (bony prominence below the knee cap). The insertion location will be 1-2 cm (2 finger widths) below this. If this site is not suitable, and patient >12 years of age, identify the anteriormedial aspect of the distal tibia (2 cm proximal to the medial malleolus). ▪ Prep the site with providone-iodine ointment or solution. ▪ For manual pediatric devices, hold the intraosseous needle at a 60 to 90 degree angle, aimed away from the nearby joint and epiphyseal plate, twist the needle handle with a rotating grinding motion applying controlled downward force until a "pop" or "give" is felt indicating loss of resistance. Do not advance the needle any further. ▪ For the EZ-IO intraosseous device, hold the intraosseous needle at a 60 to 90 degree angle, aimed away from the nearby joint and epiphyseal plate; power the driver until a "pop" or "give" is felt indicating loss of resistance. Do not advance the needle any further. ▪ For the Bone Injection Gun (BIG), find and mark the manufacturers recommended site. Position the device and pull out the safety latch. Trigger the BIG at 90° to the surface and remove the injection device. Remove the stylette and place in approved sharps container. ▪ Attach a syringe filled with at least 5 cc NS; aspirate bone marrow for manual devices only, to verify placement; then inject at least 5 cc of NS to clear the lumen of the needle. ▪ Attach the IV line and adjust flow rate. A pressure bag may assist with achieving desired flows. Stabilize and secure the needle with dressings and tape. ▪ You may administer 10 to 20 mg (1 to 2 cc) of 2% Lidocaine in adult patients who experience infusion-related pain. This may be repeated prn to a maximum of 60 mg (6 cc). ▪ Following the administration of any IO medications, flush the IO line with 10 cc of IV fluid. ▪ Document the procedure, time, and result (success) on/with the patient care report (PCR).	A[2]

[2]EMT providers may perform these procedures if credentialed with the appropriate OM.



Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

CENTRAL LINE MAINTENANCE

Clinical Indications

- Transport of a patient with a central venous pressure line already in place.

TREATMENT GUIDELINES

R-EMR	E–EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

▪ Prior to transportation, ensure the line is secure. ▪ Medications and IV fluids may be administered through a central venous pressure line. ▪ Such infusions must be held while the central venous pressure is transduced to obtain a central venous pressure, but may be restarted afterwards. ▪ Do not manipulate the central venous catheter. ▪ If the central venous catheter becomes dysfunctional, does not allow drug administration, or becomes dislodged, contact medical control. ▪ Document the time of any pressure measurements, the pressure obtained, and any medication administration in the patient care report (PCR).	P

Triple lumen PICC Line

Triple Lumen Hickman Catheter

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

SECTION 9000
PROCEDURES AND SKILLS

WOUND CARE PROCEDURES 9080-9089

WOUND CARE

Clinical Indications

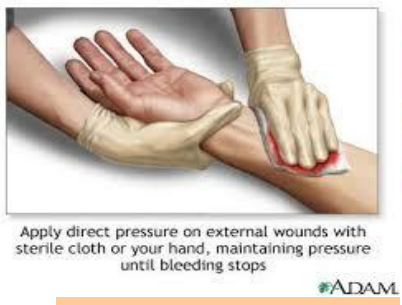
- **Clinical Indications:**
  Protection and Care for open wounds prior to and during transport.

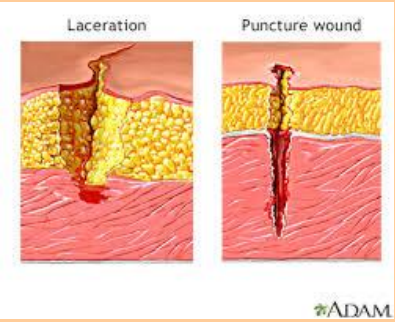
PROCEDURE GUIDELINES

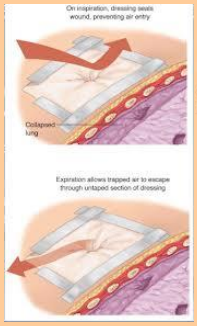
R- EMR	E – EMT BASIC	A-EMTA	P-PARAMEDIC	**M-Medical Control **

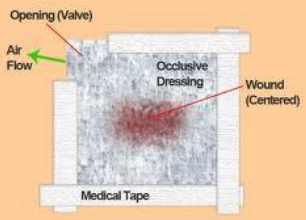
*****Higher level providers are responsible for lower level treatments*****

▪ Use personal protective equipment including gloves, gown and mask as indicated. ▪ If active bleeding, elevate the affected area if possible and apply direct pressure. Do not rely on "compression" bandages to control bleeding. Direct and focused pressure is more effective. ▪ Once bleeding is controlled, irrigate contaminated wounds with saline as appropriate (this may have to be avoided if bleeding is hard to control). In the Wilderness setting, wash the surrounding skin with soap and water, and irrigate the wound with at least 100 ml, up to 1,000 ml using the cleanest water available. Ideally use a 30 or 60cc syringe and 18 gauge catheter to deliver water under pressure. Consider analgesia per protocol prior to irrigation when ALS is available. ▪ Remove foreign particles as completely as possible. Consider rinsing the wound with 1% Povidone-Iodine solution if he wound is incompletely cleansed. ▪ Cover wounds with sterile gauze/dressings. An occlusive dressing may be required for deep or "sucking" wounds. For exposure of internal organs, cover with moistened, sterile gauze with an occlusive dressing when available. For shallow wounds in the Wilderness setting, apply an antibacterial ointment before dressing. ▪ Immobilize or splint high-risk and infected wounds; do not close with sutures or closures. ▪ Check distal pulses, sensation and motor function to ensure the bandage is not too tight. ▪ Monitor wounds and/or dressings throughout transport for bleeding, and change the bandage when saturated. During prolonged Wilderness care, clean the wound each hour and change the dressing accordingly. ▪ Document the wound assessment and care in the patient care report (PCR).	R









Remove all impaled objects unless doing so would cause further harm. Exceptions include impaled objects in the globe of the eye or when removal of the impaled object would result in severe pain or bleeding. Remove objects that interfere with safe transport or that will cause more damage if left in place. After removal, treat as an open wound.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

WOUND CARE- HEMOSTATIC AGENT

Clinical Indications and Contraindications

- **Clinical Indications:**
  Serious hemorrhage that cannot be controlled by other means.
- **Contraindications:**
  Wounds involving open thoracic or abdominal cavities.

PROCEDURE GUIDELINES

R- EMR	E – EMT BASIC	A-EMTA	P-PARAMEDIC	**M-Medical Control **

Higher level providers are responsible for lower level treatments

▪ Use personal protective equipment including gloves, gown and mask as indicated. ▪ Apply approved, non-heat generating hemostatic agent per manufacturer's instructions. ▪ Supplement with direct pressure and standard hemorrhage control techniques. ▪ Cover wounds with sterile gauze/dressings. ▪ Check distal pulses, sensation and motor function to ensure the bandage is not too tight. ▪ Monitor wounds and/or dressings throughout transport for bleeding. ▪ Document the wound assessment and care in the patient care report (PCR).	R

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

TASER® PROBE REMOVAL

Clinical Indications and Contraindications

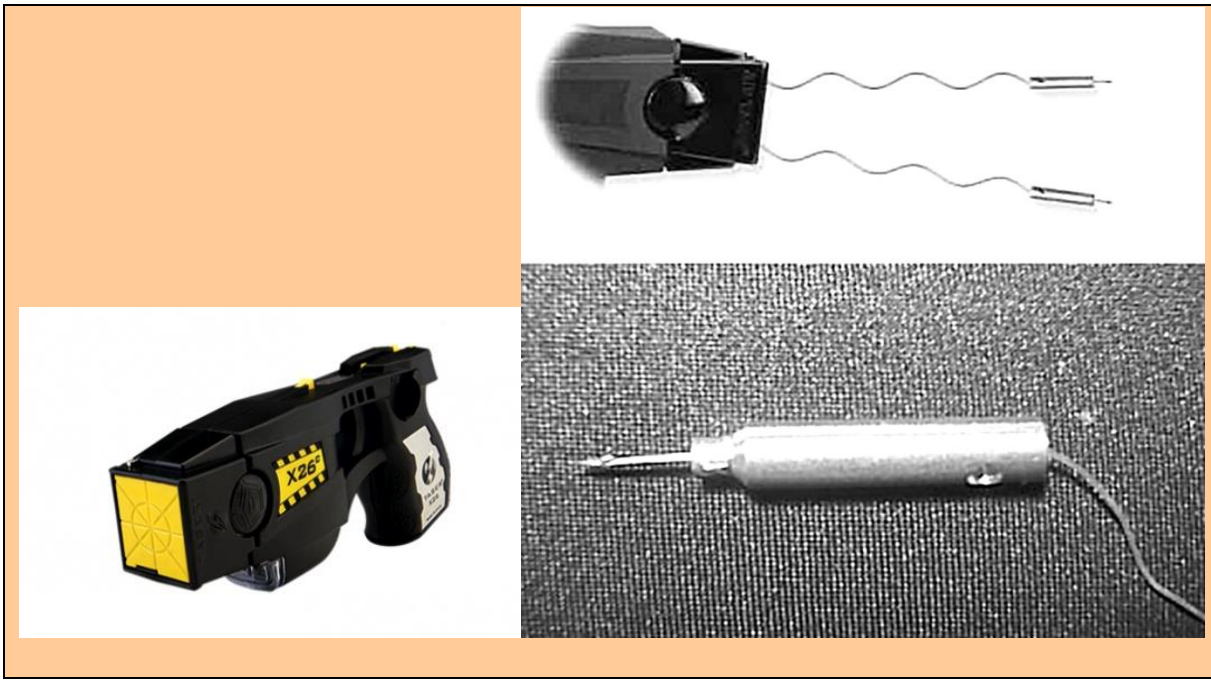
- **Clinical Indications:**
  Patient with uncomplicated conducted electrical weapon (Taser®) probes embedded subcutaneously in non-sensitive areas of skin.
  Taser probes are barbed metal projectiles that may embed themselves up to 13 mm into the skin.
- **Contraindications:**
  Patient with conducted electrical weapon (Taser®) probe penetration in vulnerable areas of the body should be transported for further evaluation and probe removal: This includes probes embedded in skin above the level of clavicles, female breasts, or genitalia.
  Suspicion that probe might be embedded in bone, blood vessel, or other sensitive structures.

PROCEDURE GUIDELINES

R- EMR	E – EMT	A-AEMT	P-PARAMEDIC	**M-Medical Control **

*****Higher level providers are responsible for lower level treatments*****

▪ Ensure wires are disconnected from weapon. ▪ Stabilize skin around probe using non-dominant hand. ▪ Grasp probe by metal body using dominant hand. ▪ Remove probe in single quick motion. ▪ Wipe wound with antiseptic wipe and apply dressing.	P[2-4]



[2,]EMT [3]AEMT, and [4]Paramedic providers may perform these procedures if credentialed with the appropriate OM.

BCEMS Medical Director
Effective: 07/01/19

BONNER COUNTY
EMERGENCY MEDICAL SERVICES
EMS SYSTEM

APPENDICES

APGAR SCORING CHART

Clinical Signs	Zero	One	Two
A = Appearance (Color)	Blue, pale	Body pink, Extremities blue	All pink
P = Pulse (Heart Rate)	Absent	< 100	> 100
G = Grimace (Reflex Response) **1,2**	No response	Grimace	Cough, sneeze
A = Activity (Muscle Tone)	Limp	Some flexion of arms and/or legs	Well flexed
R = Respiratory effort	Absent	Weak cry, Hypoventilation	Strong cry

Add score from each category to equal APGAR score (0-10). Typically APGAR scoring is done at 1 and 5 minutes after birth.

1 Response to catheter in nostril (tested after pharynx is cleared)
2 Tangential foot slap

GLASGOW COMA SCALE

The Glasgow Coma Scale (based upon eye opening, verbal and motor response) is a practical means of monitoring changes in level of consciousness. If each response on the scale is given a number (higher for normal and lower for impaired responses), the responsiveness of the patient can be expressed by the summation of the figures. The lowest score is 3; the highest is 15.

GLASGOW COMA SCALE

EYES OPEN:

Spontaneously..... 4
To verbal command..... 3
To pain..... 2
No Response..... 1 Score (1 to 4) = _____

MOTOR RESPONSE:

To verbal command:
Obeys.....6
Painful Stimulus [1]:
Localizes pain.....5
Flexion-withdrawal.....4
Flexion-abnormal (decorticate rigidity).....3
Extension (decerebrate rigidity).....2
No response..... 1 Score (1 to 6) = _____

VERBAL RESPONSE [2]:

Oriented, converses..... 5
Disoriented, converses..... 4
Inappropriate words.....3
Incomprehensible sounds..... 2
No response..... 1 Score (1 to 5) = _____

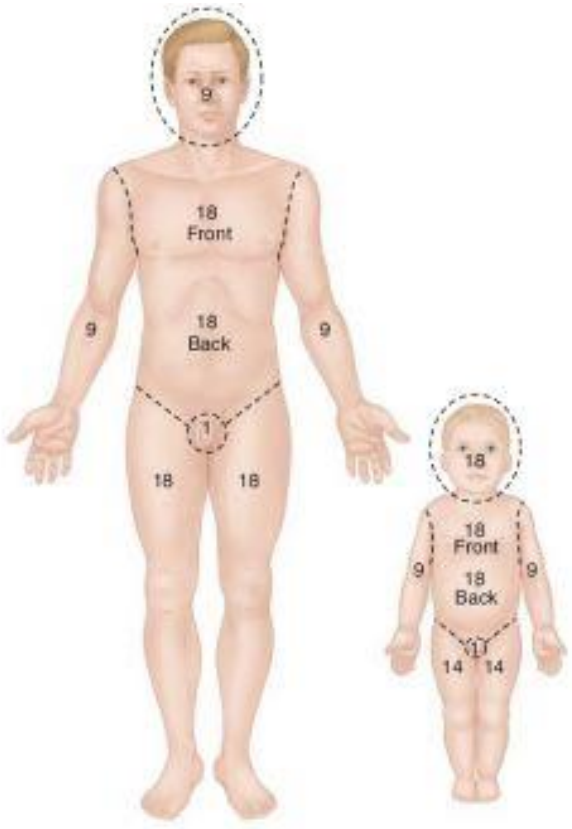
GLASGOW COMA SCALE TOTAL SCORE (3 to 15) = _____

[1] apply knuckle to sternum, observe arms
[2] arouse patient with painful stimulus if necessary

Ronald Jackson MD

BURNS, RULE OF NINES

The rule of nines assesses the percentage of burn and is used to help guide treatment decisions including fluid resuscitation and becomes part of the guidelines to determine transfer to a burn unit. To approximate the percentage of burned surface area, the body has been divided into eleven sections:



- Head
- Right arm
- Left arm
- Chest
- Abdomen
- Upper back
- Lower back
- Right thigh
- Left thigh
- Right leg (below the knee)
- Left leg (below the knee)

Each of these sections takes about nine percent of the body's skin to cover it. Added all together, these sections account for 99 percent. The genitals make up the last one percent.

To apply the rule of nines, add up all the areas of the body that are burned deep enough to cause blisters or worse (2nd or 3rd degree burns).

This means a superficial burn. The surface of the skin is damaged, but the epidermis (the outermost layer of skin) is still intact, and therefore able to perform its functions (control temperature and protect from infection or injury).

This means damage that has extended through the epidermis and into the dermis (the second layer of skin). Second-degree burns also are known as partial-thickness burns.

This indicates the burn has destroyed both the epidermis and dermis. The victim has the same trouble with fluid loss, heat loss, and infection that come with second-degree burns.

Ronald Jackson MD

NORMAL VITAL SIGN RANGES

Age Group	Respiratory Rate rpm	Heart Rate bpm	Systolic Blood Pressure mmHg	Weight in kilos
Newborn	30-50	100-160	>60	3.0-3.5
4 months	30-40	100-160	>60	7
1 Years	20-30	100-160	>70	10
2-3 Years	16-24	90-150	>70	15
4-6 Years	14-24	80-130	>75	20
7-8 Years	14-24	70-110	>80	25
9-10 Years	14-24	60-100	>80	30
10-15 Years	12-20	60-100	>85	35-50
>15 years	12-20	60-100	>90	45-80

PREHOSPITAL STROKE SCALE

CINCINNATI STROKE SCALE

Stroke Recognition Tool **(FAST)**
Facial Droop: Have patient show teeth or smile. • Normal- both sides of face move normally • Abnormal- one side of face does not move as well as the other side
Arm Drift: Patient closes eyes and extends both arms straight out, with palms up for 10 seconds. • Normal- both arms move the same, or both arms do not move • Abnormal- one arm doesn't move or one arm drifts down compared with the other
Speech: Have patient say "you can't teach a dog new tricks" • Normal- patient uses correct words with no slurring • Abnormal- patient slurs words, uses the wrong words, or is unable to speak

FACIAL DROOP

ARM DRIFT

PAIN ASSESSMENT TOOLS

A. FLACC Behavioral Tool:

1. This tool is appropriate for use with children less than 3 years of age or those with cognitive impairments or any child who is unable to use the other scales.
2. FLACC stands for Face, Legs, Activity, Cry and Console-ability.
3. The patient is assessed in each of these categories with a score applied to behaviors evaluated.
4. The five scores are totaled; the severity of pain is based on the 0-10 scale.

	0	1	2
FACE	No particular expression or smile	Occasional grimace or frown, withdrawn, disinterested	Frequent to constant frown, clenched jaw, quivering chin
LEGS	Normal position or relaxed	Uneasy, restless, tense	Kicking or legs drawn up
ACTIVITY	Lying quietly, normal position, moves easily	Squirming, tense, shifting back and forth, hesitant to move, guarding	Arched, rigid or jerking, fixed position, rocking, rubbing of body part
CRY	No cry/moan (awake or asleep)	Moans or whimpers, occasional cries, sighs or complaint	Cries steadily, screams, sobs, moans, groans, frequent complaints
CONSOLABILITY	Calm, content, relaxed, needs no consoling	Reassured by hugging, talking to; distractible	Difficult to console or comfort

B. Baker-Wong Faces Pain Rating Scale:

Baker-Wong FACES Pain Rating Scale

This tool is usually appropriate for use with children age 3 years and older.

Wong DL, Hockenberry-Eaton M, Wilson D, Winkelstein ML: Wong's Essentials of Pediatric Nursing, 6th edition, St Louis, 2001, Mosby. p 1301. Copyright, Mosby. Inc. Reprinted with permission.

Brief word instructions: Point to each face using the words to describe the pain intensity. Ask the child to choose the face that best describes how he/she is feeling.
Original word instructions: Explain to the person that each face is for a person who feels happy because he/she has no pain (hurt) or sad because he/she has some pain or a lot of pain. Ask the person to choose the face that best describes how he/she is feeling.

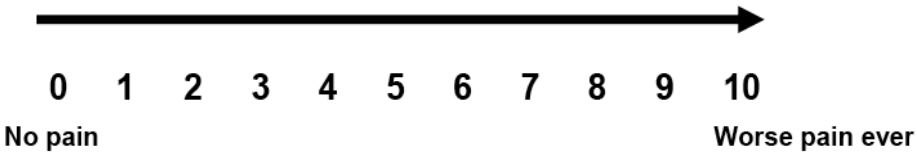
- **Face 0** is very happy because he doesn't hurt at all.
- **Face 2** hurts just a little bit.
- **Face 4** hurts a little more.
- **Face 6** hurts even more.
- **Face 8** hurts a whole lot.
- **Face 10** hurts as much as you can imagine; you don't have to cry to feel this bad.

Ronald Jackson MD

C. Visual Analog Scale:

1. This tool is appropriate for use with children approximately ages 8 and older. 2. If there is any doubt that the child clearly understands the concept of assigning

a number to describe the degree of their pain, utilize the Wong-Baker FACES scale or the FLACC Behavioral tools.



FIELD GUIDE FOR ALS PROCEDURES

PROCEDURES PRIOR TO MEDICAL CONTROL CONTACT

GENERAL ALS

1. Basic Airway
2. High flow O2 / Advanced Airway*
   (*MCP contract required for needle cricothyrotomy)
3. Cardiac monitor document rhythm / 12 lead EKG prn
4. If indicated, perform blood glucose analysis
5. Establish peripheral venous access prn

RESPIRATORY DISTRESS

Arrest/Hypoventilation (RR < 8/minute):

1. General ALS
2. Advanced Airway
3. If suspected narcotic overdose--***Naloxone*** prior to intubation
   Adult: 0.8-2mg IVP/IM (titrate IV to adequate RR/TV)
   Pediatric: 0.1mg/kg IVP/IM

Wheezing/Bronchospasm:

1. General ALS
2. ***Albuterol*** via hand-held nebulizer
   Adult: 2.5mg in 3 cc SVN
   Pediatric: 0-1 year—1.25 mg in 3 cc SVN
3. ***Epinephrine*** 0.3 mg SQ/IM (patients <35 yrs)

Basilar Rales/Cardiogenic origin:

1. General ALS
2. ***Nitroglycerin*** 0.4mg SL q 5 minutes up to 3 doses as follows:
   SBP >100mmHg and < 120mmHg=0.4mg x1 dose
   SBP >120mmHg=0.4mg x2 doses with BP repeat Q 5 min
3. ***Furosemide*** 0.5-1.0 mg/kg IV/IM
   Adult: 20-40 mg IV
   Pediatric: 1-20 mg IV

STABLE WIDE-COMPLEX TACH

1. General ALS
2. Advanced airway
3. ***Amiodarone*** 150 mg slow IVP (0ver 10 min)
   Adult: 1 mg/min IV
4. Consider ***Lidocaine***
   Adult: 1mg/kg slow IVP
   0.5mg/kg IV every 5 min max total 3mg/kg
   Pediatric: 1mg/kg slow IVP
5. If SPB < 90 and decreased LOC Synchronized Cardioversion
   Adult: Monophasic 100,200,300,360WS *or*
   Biphasic 100,150,200WS
   Pediatric: 0.5WS/KG x1 prior to Med Control
6. Premedicate cardioversion with ***Midazolam***
   0.05-0.1 mg/kg IV, 2.5 mg/dose maximum

SUPRAVENTRICULAR TACHYCARDIA

1. General ALS
2. If SBP > 90 awake alert--Valsalva
3. For regular SVT***:Adenocard***
   Adult: 6mg IVP reassess, 12 mg IVP, reassess, 12mg IVP.
   If SBP <90, and decreased LOC
   Synchronized cardioversion
   Monophasic 100,200,300,360WS *or*
   Biphasic 100,150,200WS
4. For irregular SVT (AF): ***Diltiazem***
   Adult: 0.25 mg/kg IVP

Ronald Jackson MD

BCEMS Medical Director

CHEST PAIN

1. General ALS
2. ***Aspirin*** 324 mg chewable or po
3. If SBP >100 ***Nitroglycerin*** 0.4mg SL q 5 minutes max 3 doses
4. ***Nitroglycerin paste*** 0.5-2" TD
5. ***Morphine Sulfate*** 2 mg IVP, repeat q 5 min to 10 mg maximum
6. If shock or dysrhythmia, treat per appropriate protocol

ALTERED LOC

1. General ALS
2. Advanced airway
3. If blood glucose < 60 (chemstrip)
   Adult: 50ml (25 gm) ***D50W*** IV
   Pediatric: Under 2 years - 2ml/kg ***D25W*** IVP
   Over 2 years - 1ml/kg ***D50W*** IVP

If unable to establish IV access--***Glucagon*** 1mg IM

4. If suspected narcotic overdose or hypoventilation - ***Naloxone*** prior to ET/ETC
   Adult: 0.8mg-2mg IVP/IM (titrate IV to adequate RR/TV)
   Pediatric: 0.1mg/kg IVP/IM

SYMPTOMATIC BRADYCARDIA

Adult: (HR < 40/minute and systolic BP < 80):

1. General ALS
2. Advanced airway
3. ***Atropine*** 0.5-1mg IVP may repeat every 5 minutes max total 3mg
4. Cardiac External Pacing
5. Consider ***Dopamine*** 5 mcg/kg/min

Pediatric: (HR<60/minute)

1. Basic Airway Ventilate BVM @ 100% 02 (Ventilate @ 20 breaths/min)
2. CPR
3. Venous access
4. **Do not administer *Atropine*** to 8 yrs and under

CARDIOPULMONARY ARREST

Non-Traumatic Cardiac Arrest:

1. Cardiac Monitor/General ALS
2. If V-Fib/pulseless V-Tach--defibrillate per protocol
   Adult: Monophasic 200, 200, 360WS OR Biphasic 150, 200WS
   Pediatric: 2, 4, 4WS/kg
3. Advanced airway
4. Peripheral venous access,
   (If unable, *Adult:* Intraosseous or femoral, *Pediatric:* Limb IO)
5. ***Epinephrine*** (1:10,000)
   Adult: 1mg IVP or 2mg ET repeat every 5 minutes
   Pediatric: 0.01mg/kg IVP repeat every 5 minutes
6. If no conversion – defibrillate at last setting
7. Consider Cardiac External Pacing for Asystole

Traumatic Cardiac Arrest:

1. Cardiac Monitor/General ALS
2. If V-Fib/V-Tach--defibrillate
   Adult: Monophasic 200, 200, 360WS OR Biphasic 150, 200WS
   Pediatric: 2, 4, 4WS/kg
3. If Tension Pneumothorax--needle thoracostomy
4. Advanced airway
5. Peripheral venous access enroute - ***Normal Saline,*** 2 large bore
   (If unable, *Adult:* Intraosseous or femoral, *Pediatric:* Limb IO)
   Adult: *NS* wide open up to 2 liters and reassess
   Pediatric: *NS* 20ml/kg and reassess

Has the patient's condition improved, symptoms significantly resolved and are the patient's vital signs stable? If yes, proceed with ED EMS notification. If NO, then contact Medical Control.

Ronald Jackson MD

BCEMS Medical Director

SHOCK

1. General ALS
2. Advanced airway
3. Venous access:
   If hypovolemic and or without CHF
   Normal Saline (NS)
   Adult: *NS* Wide open up to 2 liters and reassess
   Pediatric: *NS* 20ml/kg and reassess
   If cardiogenic/unknown cause - NS TKO
4. If severe anaphylaxis—***Epinephrine:***
   Adult: 0.1mg slow IVP (1:10,000) or 0.3mg IM/SC (1:1000)
   Pediatric: 0.01mg/kg slow IVP (1:10,000) (max dose 0.1mg) OR
   0.01mg/kg IM/SC (1:1000) (max 0.3mg)
5. If Tension Pneumothorax: Needle Thoracostomy

ALLERGIC REACTION

1. General ALS
2. Advanced airway
3. Remove allergen/or stinger when appropriate
4. ***Epinephrine 1:1000***
   Adult: 0.3mg IM/SC (If age >50 per MCP order only)
   Pediatric: 0.01mg/kg IM/SC (Max dose 0.3mg)
5. ***Normal Saline*** 500ml Bolus
6. ***Diphenhydramine (Benadryl):***
   Adult: 25mg IV or 50mg IM
   Pediatric: 1mg/kg IM (max dose 25mg)
7. ***Albuterol*** via hand-held nebulizer (consider for wheezing or dyspnea)
   Adult: 2.5mg SVN
   Pediatric: 0 - 1 year – 1.25 mg SVN
8. **Methylprednisolone** (***Solumedrol)*** 125 mg IV/IM for severe reaction, or **Dexamethasone (Decadron)** 4-10 mg IM/IV for severe reaction.

SEIZURES

1. General ALS
2. Advanced airway
3. If blood glucose < 60 (chemstrip)
   Adult: 50ml ***D50W*** IV
   Pediatric: 0 - 2 years--2ml/kg ***D25W*** IVP
   Over 2 years--1ml/kg ***D50W*** IVP
   If unable to establish IV --***Glucagon*** 1mg IM
5. If seizures prolonged or recurrent–***Midazolam:***
   Adult: *0*.05-0.1 mg/kg IV/IM reassess, may repeat every 5 minutes, Max 2.5mg/dose
   Pediatric: 0.05-0.1mg/kg reassess repeat every 3-5 minute, Max 0.5mg/dose

SEVERE PAIN – NON CARDIAC

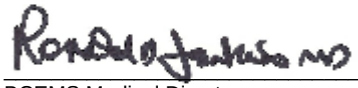
1. General ALS
2. Peripheral venous access
3. Consider ***Fentanyl:***
   Adult: ***Fentanyl*** 1 microgram/kg **slow** IV up to Max dose100 micrograms
   Titrate IV 25-50 micrograms per dose every 10 Minutes
5. Consider Inhaled Nitrous Oxide.
6. Consider Ketamine 0.1-0.3 mg/kg IV/IO.

Has the patient's condition improved, symptoms significantly resolved AND are the patient's vital signs stable? If YES then proceed with ED EMS notification. If NO then contact Medical Control.

Ronald Jackson MD

BCEMS Medical Director
Effective: 07/01/19

Medication	EMR	EMT	AEMT	Paramedic	Med Control
Acetaminophen				X	
Acetylsalicylic Acid		X	X	X	
Activated Charcoal		MC	MC	MC	X
Adenosine				X	
Albuterol		ASSIST	X	X	
Amiodarone				X	
Atropine				X	
Calcium Chloride				MC	X
Dexamethasone				X	
Dextrose			X	X	
Diltiazem				X	
Diphenhydramine				X	
Dopamine				X	
Epinephrine 1:1000		OM	OM	X	
Epinephrine 1:10000				X	
Epinephrine Infusion				x	
EpiPen	OM	X	X	X	
Etomidate				X	
Fentanyl				X	
Furosemide				X	
Glucagon		OM	X	X	
Glucose		X	X	X	
Heparin				x	
Ibuprofen				X	
Ipratropium				X	X
Ketamine				X	
Lidocaine				X	
Magnesium Sulfate				X	
Methylprednisolone				X	
Metoprolol				MC	
Midazolam				X	
Naloxone			X	X	
Nitroglycerin (SL)		ASSIST	X	X	
Nitroglycerin Paste			OM	X	
Nitroglycerin Infusion				MC	
Nitrous Oxide			X	X	
Ondansetron		X	X	X	
Oxygen	X	X	X	X	
Potassium Chloride				MC	
Pralidoxime (auto injector)		X	X	X	
Promethazine				X	
Rocuronium				X	
Sodium Biccarbonate				X	
Succinylcholine Chloride				X	
Ticagrelor (Brilinta)				MC	



DRUG REFERENCES
BONNER COUNTY EMS SYSTEM APPROVED MEDICATIONS

ACETAMINOPHEN (Tylenol)
Dose: 325-1000 mg every 4-6 hours. Maximum 4 gms/day.
Peds: 15 mg/kg PO/PR every 4-6 hours for age >3 months. Maximum dose 1,000 mg/dose, 2000 mg/day.
Indications: Acetaminophen is used to treat many conditions such as headache, muscle aches, arthritis, backache, toothaches, colds, and fevers.
Notes: Avoid if there is a history of alcoholism or hepatic cirrhosis, or age < 3 months. Acetaminophen overdose may lead to liver injury and death.

ACETYLSALICYLIC ACID /ASPIRIN
Dose: 324 mg/dose therapeutic, 81 mg/day prophylactic. Max dose 1000 mg/day.
Peds: **No not administer Aspirin to children or teenagers.**
Indications: Acute MI, Suspected Acute Coronary Syndrome. It is also beneficial for pain, fever and inflammation.
Notes: Ask if the patient is taking Coumadin/Warfarin. Aspirin should not be given to a child or teenager with fever, especially if the child has flu symptoms or chicken pox, as it can cause a sometimes fatal condition called Reye's Syndrome. Do not administer Aspirin if there is a history of allergy to Aspirin or NASIDS, if the patient is on Warfarin, or if there is a history of GI bleeding, ulcers, bleeding disorders, asthma, nasal polyps, liver or kidney disease.

ACTIVATED CHARCOAL
Dose: 50 gm (2 tablespoons) mixed with 8 Oz. of water, then given orally or through a nasal gastric tube.
Peds: 1.0 gm/kg mixed with a 6 Oz. of water, then given orally or through a nasal gastric tube.
Indications: In poisoning or when emesis is contraindicated.

Notes: Do not give if airway not controlled. Administer only after emesis or in those cases where emesis is contraindicated..

ADENOSINE
Dose: 6 mg IVP followed by a rapid Saline flush. May repeat at 12 mg IVP x 2 doses.
Peds: 0.1 mg/kg rapid IVP/IO (max 1st dose 6mg), if no response in 2 minutes administer 0.2 mg/kg rapid IVP/IO, Max repeat dose 12mg IV x 2 doses.
Indications: Supraventricular Tachycardia, in Peds also use for ventricular tachycardia with a pulse.
Notes: Xanthines, Tegretol, Persantine may alter effectiveness of Adenosine. Side effects may include: transient flushing,
dyspnea, chest pain, and transient asystole.

ALBUTEROL (Ventolin)
Dose: 2.5 mg (3 ml) in nebulizer @ 6 1/m flow
Peds: 1.25-2.5 mg (3 ml) in nebulizer @ 6 l/m flow
Indications: Bronchospasm, respiratory distress, critical hyperkalemia
Notes: Use with caution in hypertension, tachycardia.

AMIODARONE (Cordarone, Pacerone)
Dose: VF Pulseless/Unstable VT: 300mg IV/IO (max 450mg)
Hemodynamically Stable VT: 150mg IV/IO over 10 minutes
Follow-up Infusion: 1 mg/min IV x 6 hours.
Peds: SVT/VT with pulse: 5mg/kg IVP/IO over 20-60 min.
V-Fib/Pulseless V-Tach: 5mg/kg IV/IO (Max dose 300mg)
Follow-up infusion: 5-15 mcg/kg/min IV
Indications: V-Fib/Pulseless V-Tach refractory to Lidocaine.
Notes: Avoid with sinus bradycardia, second and third-degree AV block in the absence of a functioning pacemaker, severe heart failure and cardiogenic shock, and long QT syndromes.

Ronald Jackson MD
BCEMS Medical Director
Effective: 07/01/19

ATROPINE SULFATE
Dose: Bradycardia: 0.5mg IVP/IO (Max 3.0 mg)
Asystole: 1.0mg IVP/IO or 2mg ETT q 3-5 min. (Max 3 mg)
Cholinesterase inhibiting toxins: 1.0-2.0 mg IVP/IO challenge then 1.0 mg IVP/IO q 5-10 min, titrate to drying of secretions.
Peds: Bradycardia/Asystole; 0.02 mg/kg (min dose: 0.1 mg; maximum single dose 0.5mg child/1.0mg adolescent)
Adjunct with intubation: (<10 y/o) 0.02 mg/kg IVP/IO
Cholinesterase inhibiting toxins; 0.05 mg/kg q 5-10 minutes
titrated to drying of secretions (minimum dose: 0.2 mg).
Indications: Bradycardia, Asystole/PEA, cholinesterase inhibiting toxins.
Notes: Use with caution in Tricyclic overdose.

CALCIUM CHLORIDE 10%
Dose: 500-1000mg slow (5-10ml) IVP/IO may repeat q10 min
Peds: 20 mg/kg slow IVP/IO
Indications: acute hyperkalemia, hypocalcemia, calcium channel blocker toxicity
Notes: Flush IV line well between administration of Sodium Bicarbonate to avoid precipitation. May cause bradycardia, arrhythmias, syncope, and cardiac arrest, tissue necrosis to veins.

DEXAMETHASONE
Dose: 4-10 mg IM/IV
Peds: 0.6 mg/kg up to 10 mg IM/IV or PO
Indications: respiratory distress, asthma and anaphylaxis

DEXTROSE 50% (D50)
Dose: 12.5 grams – 50 grams IVP/IO
Peds: 2.0 - 4.0 ml/kg of D25W (diluted D50W 1:1 with NS)
Neonates: 5-10 ml/kg D10W (mix 12 ml D50 with 50 cc NS)
Indications: Hypoglycemia
Notes: Necrotizing if IV infiltrated use D10W for neonates

DILTIAZEM (Cardizem)
Dose: 0.1-0.25 mg/kg IV/IO bolus, titrate in 5mg increments. Maximum initial bolus is 20 mg.
Infusion post bolus: 5-10 mg/hour IV
Indications: Atrial Fibrillation, Flutter, PSVT, hypertension
Notes: Avoid in second or third degree AV block, hypotension, wide-complex tachycardia or cardiogenic shock.

DIPHENHYDRAMINE (Benadryl)
Dose: 0.5-1.0 mg/kg IV/IM/IO or PO (25-50 mg)
Peds: 1-2 mg/kg IVP/IO/PO (50 mg maximum dose).
Indications: Anaphylaxis, allergic reaction, nausea control, dystonia (an impairment of muscle tone often effecting the head, neck and tongue) secondary to extrapyramidal reactions (uncontrolled movement, changes in muscle tone, and abnormal posturing).
Notes: Observe for hyperthermia, tachycardia. Relative contraindication with asthma.

DOPAMINE (Premix)
Dose: 2-20 mcg/kg/min titrated to blood pressure.
Indications: Hypotension, bradycardia and AV block.
Notes: Observe carefully for ectopy and tachycardia. Contraindicated in hypovolemia, pheochromocytoma (an adrenaline secreting tumor), and MAO inhibitors.

EPINEPHRINE 1:1000
Dose: 0.3–0.5 ml SQ or IM every 10 minutes as needed.
Peds: 0.01 ml/kg SQ not to exceed 0.5 mg; 5.0 ml SVN
Indications: Bronchospasm, anaphylaxis, allergic reaction.
Notes: Avoid using in patients with hypertension, tachycardia, and in persons >50 years old or with known heart disease.

Ronald Jackson MD
BCEMS Medical Director

EPINEPHRINE 1:10,000
Dose: 1.0 mg IVP/IO or ETT q 3-5 min; 0.3-0.5 mg IVP/IO for anaphylaxis or extreme asthmatics.
Peds: 0.01-0.03 mg/kg IVP/IO (0.1mg/kg ETT) q3-5 minutes. (Maximum dose 1 mg)
Indications: V-fib, asystole, EMD, bronchospasm, anaphylaxis, allergic reaction, pediatric bradycardia.
Notes: Use with caution in patients with hypertension, tachycardia. Consider using 1:1,000 Epi if ETT dose needed.

EPINEPHRINE INFUSION
Dose: 2 – 10 mcg/min; mix 1mg in 250cc NS, (4.0 mcg/ml)
Indications: For severe asthma or anaphylaxis refractory to SQ or IM Epinephrine.
Notes: Titrate drip for effect. All patients must be on a Cardiac Monitor. **Must clear with Medical Control.**

EPIPEN
Dose: Epinephrine autoinjector, 0.3 mg SQ
See procedure 9021 EpiPen Administration
Peds: Epinephrine autoinjector, 0.15 mg SQ (EpiPen Jr.)
Notes: EpiPen Jr. is for children between 15 and 30 kg.

ETOMIDATE
Dose: 0.3-0.6 mg/kg IVP/IO
Peds: Dose same as adults
Indications: RSI adjunct.
Notes: Causes hypnotic effect within one minute, duration 4-10 minutes. Use cautiously with geriatric patients; may cause cardiac depression. Repeat administration for continued sedation is not endorsed.

FENTANYL (Duragesic)
Dose: 1-2 mcg/kg/dose slow IM/IV/IO/IN (25-100 mcg).
Repeat initial dose at 5-10 minute intervals cautiously. IN dosing is up to 0.5-1cc in each nare.
RSI pretreatment: 2-3 mcg/kg IV/IM/IO/IN
Peds: 1-3 mcg/kg slow IM, IVP/IO; titrate to effect at 5-10 minute intervals. Max dosage 25 mcg/dose in children.
Neonates: 1mcg/kg. Max 25 mcg/dose in children.
Indications: Pain relief and RSI pretreatment.
Notes: Contraindications: Avoid using in patients with increased intracranial pressure, severe respiratory depression, or severe renal or hepatic insufficiency.

FUROSEMIDE (Lasix)
Dose: 20-80 mg slow IVP/IO
Peds: 1 mg/kg slow IVP/IO (maximum dose 20mg)
Indications: Heart Failure, and Pulmonary Edema when rapid diuresis is required. It is also beneficial for hypercalcemia.
Notes: Furosemide generally causes potassium depletion in the absence of renal insufficiency.

GLUCAGON
Preparation: Mix solution and powder to yield 1 mg.
Dose: - Hypoglycemia: 1 mg IM or SQ;
Beta Blocker OD: 2 mg IVP/IO
Peds: 0.025 mg/kg IM or IV
Indications: Hypoglycemia when IV access is unobtainable. Consider initiation of treatment in symptomatic beta blocker overdose refractory to Atropine
Notes: Not compatible with NS.

GLUCOSE (Oral Glucose Gel)
Dose: 15 gms Oral Glucose gel PO/SL
Peds: same
Indications: Hypoglycemia, Insulin Reactions
Notes: Avoid if patient is unconscious and not able to protect airway. Be prepared to use suction.

HEPARIN
Dose: Loading dose of 35-50 units/kg bolus (2-5,000 units) followed by a drip of 10-15 units/kg/hr.
Indications: Acute coronary syndromes including STEMI, Pulmonary embolism, Deep Vein Thrombosis and other thrombotic disease states.
Notes: Heparin should be used with extreme caution whenever there is an increased risk of hemorrhage, such as GI lesions, recent surgery, blood dyscrasias, menstruation, uncontrolled hypertension, and indwelling catheters.

Ronald Jackson MD

IBUPROPHEN (Advil, Motrin)
Dose: 200-800 mg PO
Peds (age >6 months): 10 mg/kg PO (max 800 mg)
Indications: Pediatric high fever, anti inflammatory, Pain relief
Notes: NSAIDs cause an increased risk of serious GI adverse events including bleeding, ulceration, and perforation of the stomach or intestines. Avoid in perioperative CABG patients.

IPRATROPIUM (Atrovent)
Dose: 0.5 mg (2.5ml) SVN (in Nebulizer) at 6 LPM flow
Peds: 0.25-0.5 mg SVN at 6 LPM flow
Indications: used as an adjunct with Albuterol for Bronchospasms, COPD, Asthma
Notes: May cause cough, nervousness and dry mouth. Contraindicated if peanut or soy allergies are known.

KETAMINE
Dose: 0.1-0.3 mg/kg IV/IM/IO for analgesia, 1-2 mg/kg IV/IM/IO for RSI Induction, 0.5-4 mg/kg/hr infusion
Indications: Non-opiate analgesia, RSI Induction
Notes: Preferred over opiates in the settings of shock, hypotension and chronic pain syndromes.

LIDOCAINE
Dose: V-Fib/Pulseless V.T.: 1.5 mg/kg slow IV/IO. May repeat twice at 0.75 mg/kg IV (max total 3 mg/kg). If no IV/IO access: 2.0- 2.5 mg/kg down ETT. For Hemodynamically Unstable VT: 1 mg/kg, may repeat at 0.5 mg/kg q 10 min, up to 3 mg/kg. Head injury/RSI with reactive airway disease: consider 1.5 mg/kg IVP/IO; 20-100mg for IO insertion.
Pain Relief for conscious patient during IO Infusion: 20-40 mg into EZ-IO port prior to initial bolus or fluid
Peds: V-Fib/Pulseless V-Tach: 1.0mg/kg IVP/IO.
If no IV/IO access, 2.0-2.5 mg/kg down ETT.
Head injury/RSI: 1.0 mg/kg IVP/IO.
Pain Relief for conscious patient during IO Infusion: 0.5 mg/kg into EZ-IO port prior to initial bolus or fluid Indications: V-Fib/Pulseless V-Tach, pathologic ventricular ectopy; anesthetic adjunct for IO infusion; adjunct for intubation with associated head trauma.
Notes: For successful resuscitation, consider infusion of 2-4 mg/min titrated to control of ventricular ectopy.
Peds infusion is: 20-50 mcg/kg/min IV.

MAGNESIUM SULFATE
Dose: 4 grams of 50% solution in with 20 cc NS given IV, or 4grams of 50% solution IM for ecclamptic seizure, and 1-2 grams in 20-50cc NS, IV for Torsades, and bronchospasm.
Peds: 20-40 mg/kg of 50% solution in 10 cc NS IV
Indications: Control of seizures in severe toxemia or ecclampsia of pregnancy. Also may be effective for Torsades de Pointes, polymorphic VT, and severe bronchospasm.
Notes: Avoid use for 2 hours preceding delivery. This drug should be used with caution in patients with renal impairment. Clinical indications of a safe dosage regimen include the presence of the patellar reflex and absence of respiratory depression.

METHYLPREDNISOLONE (Solumedrol)
Dose: Asthma and Anaphylaxis: 125 – 250 mg IV.Spinal cord injury: 30 mg/kg IV over 15 min, then 5.4 mg/kg/hr infusion
Peds: 2 mg/kg IV
Indications: Severe asthma, allergy, anaphylaxis, and spinal cord injury.
Notes: Use with caution in patients with history of GI bleeding, diabetes mellitus, CHF, hypertension, seizures.

METOPROLOL TARTRATE
Dose: 5 mg IV Q 5 minutes x 3 doses
Indications: Acute MI or suspected MI with tachycardia.
Notes: Hold for heart rate <70, BP < 110 mmHg. Avoid in presence of bronchospasm/ wheezing, heart block, bradycardia and hypotension.

Ronald Jackson MD
BCEMS Medical Director
Effective: 07/01/19

MIDAZOLAM Hcl (Versed)
Dose: .05-0.1 mg/kg (1-10 mg) slow IV/IO, IM or Nasal Atomizer, titrated to effect. (max dose 2.5 mg unless intubated)
Peds: 0.05-0.30 mg/kg IVP/IO or IM or nasally titrate to
effect or 2 mg IM (contact medical control if more than 2 mg IM is required).
Indications: Seizures, sedation, facilitation of advanced airway management (i.e. endotracheal intubation, cricothyrotomy, post-intubation sedation), alcohol withdrawl & excited delerium.
Notes: Monitor BP and respirations closely.

NALOXONE (Narcan)
Dose: 0.4-2.0 mg IVP/IO, SQ, IM, Nasal Atomizer or ETT
Peds: 0.1 mg/kg IVP/IO, SQ, IM or Nasal Atomizer maximum of 2mg.
Indications: Partial/complete withdrawal of narcotic opiates, ALOC with unknown etiology.
Notes: Follow up dosage of Naloxone may be needed since narcotic may exceed Naloxone effects.

NITROGLYCERIN (Sublingual)
Dose: 0.4 mg, 1 tab/spray Q5 minutes
Indications: Angina pectoris, pulmonary edema, hypertension
Notes: Potentiates orthostatic hypotension. Observe for headache, syncope, and have patient sit or lie down.

NITROGLYCERIN PASTE
Dose: ½" to 2" transdermal (on skin under applicator)
Indications: Angina, pulmonary edema, hypertension.
Notes: Potentiates orthostatic hypotension

NITROGLYCERIN INFUSION (Nitro drip)
Dose: 5-10 mcg/min, titrate up as needed to 40 mcg/min max, for pain and to keep BP >110, <140 mmHg.
Indications: Acute coronary syndromes or MI
Notes: Avoid hypotension, and beware of nausea, vomiting and headache which may require a reduction in dose.

NITROUS OXIDE
Dose: 50:50 mix of nitrous and Oxygen inhaled.
Indications: Prehospital analgesia for chest pain, myocardial infarction, kidney stones, urinary retention, burns, fractures, dislocations and labor pain.
Notes: Contraindicated in the presence of altered metal status, intoxication, facial burns, facial trauma, chest trauma including pneumothorax, undiagnosed abdominal pain, respiratory distress, congestive heart failure, pulmonary hypertension, eye surgery, decompression sickness, B12 deficiency, head trauma and early pregnancy.

ONDANSETRON (Zofran)
Dose: 4 mg IV push/IM, IO, Buccal over at least 30 seconds. It may also be given orally 4-8 mg PO q 8 hrs.
Peds: < 12 months (40 kg): 0.1 mg/kg IVP/IM/IO (Max 4 mg).
> 40kg: 4mg IVP/IM/IO
Indications: Nausea and Vomiting
Notes: Appears safe to administer to pregnant patients.
EMTS and AEMTS may administer oral Ondansetron

POTASSIUM CHLORIDE (KCL)
Dose: 10-40 meq orally or 10 meq/hr IV
Indication: Replacement for known Hypokalemia.
Notes: Administration will primarily be during Critical Care Transports in patients with known Hypokalemia.

PRALIDOXIME AUTOINJECTOR (Duodote)
Dose: 600 mg/2 ml IV
Indication: Used in Duodote Organophosporous Nerve Agent antidote kits to restore impaired cholinergic neural function.
Notes: Kit also contains 2 mg Atropine.

Ronald Jackson MD
BCEMS Medical Director
Effective: 07/01/19

PROMETHAZINE (Phenergan)
Dose: 6.25 – 25.0 mg IM/IV (use lower dose range for initial treatment in patients > 75 years old)
Indications: To provide relief from nausea and vomiting.
Notes: Avoid in comatose patients or patients who have received a large amount of depressants or with a history of hypersensitivity to the drug. Care must be taken to avoid accidental intra-arterial or subcutaneous injection, or administration in patients suffering from nerve agent or organophosphorus pesticide exposure.

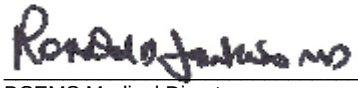
ROCURONIUM (ZEMURON)
Dose: Titrate 0.2 - 1.0 mg/kg IVP/IO to facilitate or for maintenance of paralysis for RSI.
Indications: To facilitate longer neuromuscular block lasting 30-60 minutes ONLY AFTER adequate sedation has been provided.
Notes: Contraindicated for anticipated short pre-hospital time.

SODIUM BICARBONATE
Dose: 1 mEq/kg IVP/IO (usually 50 meq dose)
Peds: 1 mEq/kg IVP/IO
Indications: Tricyclic overdose, Hyperkalemia, and consider in cardiac arrest with suspected metabolic acidosis.
Note: Precipitates calcium, so do not infuse with Calcium Chloride.

SUCCINYLCHOLINE CHLORIDE (ANECTINE)
Dose: 1.5 mg/kg IVP/IO; 2-4 mg/kg IM (as last resort) in large muscle mass.
Peds: 2.0 mg/kg IV/IO.
Indications: To facilitate rapid sequence intubation.
Notes: Monitor EKG, provide airway support as needed. May cause histamine release, some patients may experience prolonged paralysis. Contraindications include MS, 24 hr post extensive burns, rhabdomyolysis, spinal cord injury, or history of malignant hyperthermia. In patients under 10 years old consider pre-medicating with Atropine 0.02 mg/kg IVP.

TICAGRELOR (BRILINTA)
Dose: 180 mg oral load, 90 mg BID daily dose
Indication: Used for loading antiplatelet medication for STEMI.
Contraindications: Bleeding diathesis, recent TIA, stroke, severe hypertension, current anticoagulant therapy and known sensitivity to Ticagrelor.
Notes: No change in loading dose by age criteria

TORADOL (KETOROLAC)
Dose: 15-30 mg IV, 30-60 mg IM
Peds: 0.5 mg/kg IV/IM
Indications: Mild to moderate pain
Contraindications: Avoid using with severe renal impairment, hypersensitivity to the drug or history of GI bleeding or peptic ulcer disease, history of asthma or allergic reactions after taking Aspirin or other NSAIDs.



OXYGEN DELIVERY

Oxygen Administration Reference Chart		
Method	Flow Rate (in liters per minute)	% Oxygen Delivered
Room Air		21
Nasal Cannula	1 2 4	24 28 31
Face Mask (simple)	6 10	35-40 40-50
Non-rebreather Face Mask *(1)	12 15	80 90
Face Mask with Oxygen Reservoir Bag	10-12	90
Pocket Mask	10 15	50 80 *(2)
Bag Valve Mask	Room Air 12	21 40-90*(3)

*(1) Delivery system of choice for patients with inadequate breathing and patients who are cyanotic, cool, clammy, short of breath or suffering chest pain, suffering severe injuries, or displaying an altered mental status, or being transported.
*(2) This is accomplished by plugging the breathing port with the thumb while using the oxygen inlet version for supplemental oxygen delivery.
*(3) Depends on brand of bag valve mask and provisions for occluding room air inlet.

Notes:
1. Administration rates by nasal cannula of over 4 L/min are uncomfortable.
2. Use humidified oxygen, when possible, on infants, children, suspected respiratory tract burns and transports exceeding one hour duration.
3. Percentages of delivered oxygen listed above are based on optimal conditions. Altitude, equipment, etc. may decrease percentages of delivered oxygen.

Oxygen Bottle Volume and Flow				
Bottle Size	Volume in Liters	Time @ 5 L/min.	Time @ 10 L/min.	Time @ 15 L/min.
D	360	1hr. 12 min.	36 min.	24 min.
E	625	2 hrs. 5 min.	1 hr. 3 min.	42 min.
M	3,200	10 hrs.	5 hrs.	3 hrs. 20 min.
G	5,300	17 hrs. 40 min.	8 hrs. 50 min.	5 hrs. 53 min.
H	6.900	23 hrs.	11 hrs. 30 min.	7 hrs. 40 min.

1. The above values are based on full bottle (2,000 to 2200 psi.) @ 70 degrees F.
2. Allow for pressure drop of 5 psi for every 1 degree drop in temperature below 70 degrees F.

Idaho EMSPC Scope of Practice - 2020-1

	2020-1	OLD (ISC) Curriculum License Levels NEW 2011 IEC Curriculum License Levels					
	AIRWAY / VENTILATION / OXYGENATION						
	Skill	**EMR-2011** (Licensed after 1-1-2012)	**EMT-2011** (Licensed after 1-1-2012)	**AEMT-85**	**AEMT-2011** (Licensed after 1-1-2013)	**Paramedic-2011** (Licensed after 1-1-2013)	**CC Skills** Paramedic 2011
1	Advanced Airway devices not intended to be inserted into trachea		2,3,OM*~	X*	X*	X	
2	Airway – Nasal		X	X	X	X	
3	Airway – Oral	X	X	X	X	X	
4	Airway – Obstruction - removal of foreign body by direct laryngoscopy					X	
5	Bag-Valve-Mask (BVM)	X	X	X	X	X	
6	BiPAP					X	
7	Chest Decompression – Needle					X	
8	Chest Tube Placement						2,3,OM
9	Chest Tube – Monitoring & Management					X	
10	CPAP		2X	2,OM	2X	X	
11	Cricothyrotomy – Needle/Percutaneous					X	
12	Cricothyrotomy - Surgical					2, OM	3X
13	End Tidal CO_2 Capnography		2,3,OM~	2,OM	X	X	
14	Finger Sweep	X	X	X	X	X	
15	Gastric Decompression – NG Tube					X	
16	Gastric Decompression – OG Tube					X	
17	Head-tilt/chin-lift	X	X	X	X	X	
18	Intubation – Digital					X	
19	Intubation – Medication Assisted (non-paralytic)					X	
20	Intubation – Medication Assisted (paralytics) (RSI)					2,3,OM	
21	Intubation - Nasotracheal					X	
22	Intubation - Orotracheal					X	
23	Jaw-thrust	X	X	X	X	X	
24	Jaw-thrust - Modified (trauma)	OM	X	X	X	X	

	2020-1	OLD (ISC) Curriculum License Levels NEW 2011 IEC Curriculum License Levels					
	AIRWAY / VENTILATION / OXYGENATION (CONT.)						
	Skill	EMR-2011 (Licensed after 1-1-2012)	EMT-2011 (Licensed after 1-1-2012)	AEMT-85	AEMT-2011 (Licensed after 1-1-2013)	Paramedic-2011 (Licensed after 1-1-2013)	CC Skills Paramedic 2011
25	Mouth-to-Barrier	X	X	X	X	X	
26	Mouth-to-Mask	X	X	X	X	X	
27	Mouth-to-Mouth	X	X	X	X	X	
28	Mouth-to-Nose	X	X	X	X	X	
29	Mouth-to-Stoma	X	X	X	X	X	
30	Obstruction – Direct Laryngoscopy					X	
31	Obstruction – Manual	X	X	X	X	X	
32	Oxygen Therapy - High Flow Nasal Cannula					X	
33	Oxygen Therapy – Humidifiers		X	X	X	X	
34	Oxygen Therapy – Nasal Cannula	X	X	X	X	X	
35	Oxygen Therapy – Non-rebreather Mask	X	X	X	X	X	
36	Oxygen Therapy – Partial Rebreather Mask		X	X	X	X	
37	Oxygen Therapy – Simple Face Mask		X	X	X	X	
38	Oxygen Therapy – Venturi Mask		X	X	X	X	
39	Pulse Oximetry		X	2,OM	X	X	
40	CO Oximetry		2,4,OM	2,4,OM	2,4,OM	OM	
41	Suctioning – Tracheobronchial via advanced airway		2,OM	X	X	X	
42	Suctioning – Upper Airway	X	X	X	X	X	
43	Ventilators – Automated Transport (ATV) for non-intubated patients		X		X	X	
44	Ventilators – Automated Transport (ATV)					X	
45	Ventilators, Automated – Enhanced Assessment & Management						3X

	2020-1	OLD (ISC) Curriculum License Levels NEW 2011 IEC Curriculum License Levels					
	CARDIOVASCULAR / CIRCULATION						
	Skill	EMR-2011 (Licensed after 1-1-2012)	EMT-2011 (Licensed after 1-1-2012)	AEMT-85	AEMT-2011 (Licensed after 1-1-2013)	Paramedic-2011 (Licensed after 1-1-2013)	CC Skills Paramedic 2011
46	EKG - 12-lead acquisition & transmission		X	X	X	X	
47	EKG - 12-lead interpretation					X	
48	EKG - 3-lead rhythm interpretation					X	
49	Cardiopulmonary Resuscitation (CPR)	X	X	X	X	X	
50	Cardioversion – Electrical					X	
51	Carotid Massage					X	
52	Defibrillation – Automated / Semi-Automated	X	X	X	X	X	
53	Defibrillation – Manual					X	
54	Hemorrhage Control – Direct Pressure	X	X	X	X	X	
55	Hemorrhage Control – Dressing	X	X	X	X	X	
56	Hemorrhage Control – Tourniquet	X	X	X	X	X	
57	Hemorrhage Control – Wound Packing	X	X	X	X	X	
58	Impedance Threshold Device (ITD)		OM	OM	OM	OM	
59	IABP monitoring & management						3X
60	Invasive Hemodynamic Monitoring						3X
61	Mechanical CPR Device		X	X	X	X	
62	Pericardiocentesis						2,3,OM
63	Pacing - Transcutaneous					X	
64	Pacing - Transvenous & Epicardial – monitoring & management						3X
65	Telemetric monitoring & telemedicine		X		X	X	

	2020-1	OLD (ISC) Curriculum License Levels NEW 2011 IEC Curriculum License Levels					
	IMMOBILIZATION						
	Skill	**EMR-2011** (Licensed after 1-1-2012)	**EMT-2011** (Licensed after 1-1-2012)	**AEMT-85**	**AEMT-2011** (Licensed after 1-1-2013)	**Paramedic-2011** (Licensed after 1-1-2013)	**CC Skills** Paramedic 2011
66	Cervical Stabilization – Cervical Collar	2,OM	X	X	X	X	
67	Spinal Immobilization – Long Board	2,OM	X	X	X	X	
68	Cervical Stabilization – Manual	X	X	X	X	X	
69	Spinal Immobilization – Seated Patient (KED, etc.)	2,OM	X	X	X	X	
70	Extremity Stabilization - Manual	X	X	X	X	X	
71	Extremity Splinting	2,OM	X	X	X	X	
72	Extremity Splinting – Traction		X	X	X	X	
73	Pelvic Immobilization Devices		OM	OM	OM	OM	

	2020-1	OLD (ISC) Curriculum License Levels NEW 2011 IEC Curriculum License Levels					
	VASCULAR ACCESS / FLUIDS						
	Skill	**EMR-2011** (Licensed after 1-1-2012)	**EMT-2011** (Licensed after 1-1-2012)	**AEMT-85**	**AEMT-2011** (Licensed after 1-1-2013)	**Paramedic-2011** (Licensed after 1-1-2013)	**CC Skills** Paramedic 2011
74	Arterial Line – Monitoring & Access Only						3X
75	Central Line – Placement						2,3,OM
76	Central Line – Monitor & Maintain Only					X	
77	Intraosseous – Pediatric		2,OM	X	X	X	
78	Intraosseous – Adult		2,OM	OM	X	X	
79	Peripheral – Initiation (includes External Jugular)		2,OM	X	X	X	
80	Umbilical - Initiation						2,3,OM
81	IV Fluid infusion - Non-medicated		2,OM	X	X	X	
82	IV Fluid infusion - Maintenance of Medicated Fluids					X	

	2020-1	OLD (ISC) Curriculum License Levels NEW 2011 IEC Curriculum License Levels					
	TECHNIQUE OF MEDICATION ADMINISTRATION						
	Only includes techniques required to administer meds listed in the medication formulary. Does not include techniques for assisting a patient in administering his/her own medications.						
	Skill	EMR-2011 (Licensed after 1-1-2012)	EMT-2011 (Licensed after 1-1-2012)	AEMT-85	AEMT-2011 (Licensed after 1-1-2013)	Paramedic-2011 (Licensed after 1-1-2013)	CC Skills Paramedic 2011
83	Aerosolized (MDI)		X		X	X	
84	Auto-Injector	X	X	X	X	X	
85	Buccal		X	X	X	X	
86	Endotracheal Tube (ET)					X	
87	Inhaled - patient administered (nitrous oxide)				X	X	
88	Intradermal					X	
89	Intramuscular (IM)	2,OM	2,OM	2,OM	X	X	
90	Intranasal	X	X	X	X	X	
91	Intraosseous - Pediatric		2,4,OM	2,4,OM	X	X	
92	Intraosseous - Adult		2,4,OM	2,4,OM	X	X	
93	IV Infusion					X	
94	IV Piggyback					X	
95	IV Programmable Volume Infusion Device					2, OM	3X
96	IV Push					X	
97	IV Push-D50/concentrated dextrose solutions only / Naloxone (Narcan)				X	X	
98	Accessing Implanted Central IV Port					X	
99	Nasogastric					X	
100	Nebulized (SVN)		X		X	X	
101	Oral		X	X	X	X	
102	Rectal					X	
103	Subcutaneous		2,OM	2,OM	X	X	
104	Sub-lingual/Mucosal		X		X	X	
105	Topical				OM	X	
106	Transdermal					X	

	2020-1	OLD (ISC) Curriculum License Levels NEW 2011 IEC Curriculum License Levels					
	MISCELLANEOUS						
	Skill	EMR-2011 (Licensed after 1-1-2012)	EMT-2011 (Licensed after 1-1-2012)	AEMT-85	AEMT-2011 (Licensed after 1-1-2013)	Paramedic-2011 (Licensed after 1-1-2013)	CC Skills Paramedic 2011
107	Assist with Prescribed Meds		X	X	X	X	
108	Over-the-Counter Medications (OTC)					X	
109	Assisted Childbirth Delivery - Normal	X	X	X	X	X	
110	Assisted Childbirth Delivery- Complicated		X	X	X	X	
111	Blood Chemistry Analysis					X	
112	Blood Glucose Monitoring - Automated	2, OM	X	X	X	X	
113	Blood Pressure – Manual	X	X	X	X	X	
114	Blood Pressure – Automated		X	X	X	X	
115	Emergency Moves for Endangered Patients	X	X	X	X	X	
116	Eye Irrigation	X	X	X	X	X	
117	Eye Irrigation – Morgan Lens					X	
118	Mechanical Patient Restraints		X	X	X	X	
119	Rapid Extrication		X	X	X	X	
120	ICP Monitoring						3X
121	Taser Barb Removal	OM	OM	OM	OM	OM	
122	Ultrasound						3,OM
123	Urinary Catheterization						2,3,OM
124	Venous Blood Sampling – Obtaining		2,OM	X	X	X	

	2020-1	OLD (ISC) Curriculum License Levels NEW 2011 IEC Curriculum License Levels					
	MEDICATION FORMULARY						
	Formulary	EMR-2011 (Licensed after 1-1-2012)	EMT-2011 (Licensed after 1-1-2012)	AEMT-85	AEMT-2011 (Licensed after 1-1-2013)	Paramedic-2011 (Licensed after 1-1-2013)	CC Skills Paramedic 2011
125	Acetylsalicylic Acid (Aspirin)					X	
126	Acetylsalicylic Acid (Aspirin) for suspected cardiac chest pain		X	OM	X		
127	Activated Charcoal		X	X	X	X	
128	Antihistamines (Oral)		X	X	X	X	
129	Blood Products Administration						3X
130	Dextrose 50%				X	X	
131	Dextrose, concentrated solutions				X	X	
132	Epinephrine (Adrenalin)	2,4,OM	X	2,4,OM	X	X	
133	Glucagon		2,4,OM	2,4,OM	X	X	
134	Glucose (Oral)		X	X	X	X	
135	Inhaled Anticholinergic		X	X**	X	X	
136	Inhaled Beta Agonist		X	X**	X	X	
137	Lidocaine - as an adjunct for IO fluid administration		4 OM	4 OM	4 OM	X	
138	Maintenance of Blood Administration					X	
139	Atropine sulfate & 2-Pralidoxime chloride auto-injector (e.g. MARK-I, DuoDote) self & peer	X	X		X	X	
140	Atropine sulfate & 2-Pralidoxime chloride auto-injector (e.g. MARK-I, DuoDote)		X		X	X	
141	Atropine sulfate & 2-Pralidoxime chloride auto-injector (Chempack patient use - emergency stockpile release only)	4X	4X	5X	4X	X	
142	Medical Director Approved Medications					X	
143	Nitroglycerin - (Paste)				OM	X	
144	Nitroglycerin - (Sublingual)		X**	X**	X	X	
145	Nitrous Oxide (Nitronox)				X	X	
146	Ondansetron - (Sublingual)		X	X	X	X	
147	Opioid Antagonist	X	X	X	X	X	
148	OTC Pain Analgesics (Ibuprophen, Acetaminophen)		X	X	X	X	
149	Oxygen	X	X	X	X	X	
150	Plasma Volume Expander Administration						3X
151	Thrombolytic Therapy Administration					X	
152	Vaccinations	5,OM	5,OM	5,OM	X	X	

X in a white square = Existing Idaho scope of practice that will be removed from new curriculum licensure level scope

OM=Optional Module

3X CC Skills = Provider must complete the FP-C or CCP-C exam (BCCTPC)

2,3,OM CC Skills = Provider must complete the FP-C or CCP-C exam (BCCTPC) & Medical Director Approval of OM

License levels based on previous Idaho Standard Curriculum (ISC) which was based on National Standard Curricula

License levels based on new 2011 Idaho EMS Curricula (IEC) which is basesd on National Education Standards

Levels of Medical Supervision	
Requires online medical direction before performing	1
Requires completion of training that meets or exceeds specified state-wide training content established by the EMS Bureau	2
Requires additional standards as defined by the EMSPC	3
Requires EMSPC protocol	4
Just In Time Training	5

(Individual scopes of practice, separated by license level, can be found in the Standards Manual)

~End Tidal CO2 Monitoring/ Capnometry must be included if the Supraglottic Airway is selected as an EMT-2011 2,3 OM

* Adults Only

** May carry and administer only if already prescribed