



UNM EMS CONSORTIUM

RURAL EMS TREATMENT GUIDELINES

REVISED 2/15/2021



TABLE OF CONTENTS

1. ADMINISTRATIVE GUIDELINES	5
STATEMENT OF PURPOSE / APPROVAL FOR USE	6
HOW TO READ THESE GUIDELINES	7
EXCEPTIONAL EVENT REPORTING	8
DEAD AT SCENE	9
DOCUMENTATION	10
DO NOT RESUSCITATE / ADVANCED DIRECTIVES	12
EMERGENCY DEPARTMENT PATIENT TURNOVER	14
MCEP AND UNM EMS CONSORTIUM PHYSICIANS	15
PATIENTS IN LAW ENFORCEMENT CUSTODY	16
PHYSICIAN ON SCENE	17
REFUSAL CRITERIA	18
RESPONSIBILITY FOR PATIENT CARE	19
TREATMENT OUTSIDE OF GUIDELINES	20
VACCINATIONS	21
2. TRANSPORT GUIDELINES	22
GENERAL TRANSPORT CONSIDERATIONS	23
ALS / ILS INTERCEPT	24
HELICOPTER UTILIZATION	25
INVOLUNTARY TRANSPORT	26
MENTAL HEALTH PICKUP ORDERS	27
MINOR (UNDER 18) TREATMENT CONSIDERATIONS	28
TRANSPORT IN MEDICAL RESCUE UNIT	29
SELECTION OF DESTINATION HOSPITAL / DIVERSION	30
EASTERN CIBOLA COUNTY PATIENT DESTINATION	31
TRAUMA AND MEDICAL DESIGNATION – ST. VINCENT’S HOSPITAL	32
3. GENERAL GUIDELINES	33
PRIMARY MANAGEMENT	34
ADMINISTERING A PATIENT’S OWN MEDICATIONS	35
EMERGENCY INCIDENT REHAB	36
INFUSION PUMP	38
INTRAOSSEOUS ACCESS	39
PHYSICAL AND CHEMICAL RESTRAINT	40
TASER PROBE REMOVAL	42
4. AIRWAY GUIDELINES	43
AIRWAY MANAGEMENT	44
ADULT INTUBATION CHECKLIST	45
POST INTUBATION CHECKLIST	46
FOR UNM EMS CONSORTIUM CALL 505-449-5710	1

CRICOTHYROTOMY CHECKLIST	47
TRACHEOSTOMY TUBE EMERGENCIES	48
FOREIGN BODY AIRWAY OBSTRUCTION	49
CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP) CHECKLIST	50
MECHANICAL VENTILATION	51

5. MEDICAL GUIDELINES **52**

PAIN MANAGEMENT	53
ABDOMINAL / FLANK PAIN	56
ADULT RESPIRATORY DISTRESS	58
ALCOHOL WITHDRAWAL	60
ALLERGIC REACTION AND ANAPHYLAXIS	61
ALTERED MENTAL STATUS	63
CONTAGIOUS RESPIRATORY ILLNESS	64
INGESTION / POISONING / OVERDOSE	66
DIABETIC EMERGENCIES	69
EXTRAPYRAMIDAL REACTIONS	70
FAINTING / SYNCOPE	71
FEVER	72
HYPERKALEMIA	73
NAUSEA	75
PSYCHIATRIC EMERGENCIES	76
SEIZURES / CONVULSIONS	77
SEPSIS	78
STROKE / CEREBROVASCULAR INCIDENT (CVA)	79
STROKE SCALES CHECKLISTS: CPHSS	80
STROKE SCALES CHECKLISTS: C-STAT	81
STROKE ALERT DESTINATION	82

6. CARDIAC GUIDELINES: ALL AGES AND ADULT-SPECIFIC **83**

ADULT CARDIAC ARREST (NON-TRAUMATIC)	84
REFRACTORY VENTRICULAR FIBRILLATION	86
CARDIAC ARREST – HYPOTHERMIA	87
RETURN OF SPONTANEOUS CIRCULATION (ROSC)	88
TERMINATION OF RESUSCITATION EFFORTS	89
CARDIOGENIC SHOCK	90
CONGESTIVE HEART FAILURE EXACERBATION	91
NON-TRAUMATIC CHEST PAIN / ACUTE CORONARY SYNDROME	92
ADULT REGULAR NARROW COMPLEX TACHYCARDIA	94
ADULT IRREGULAR NARROW COMPLEX TACHYCARDIA	96
ADULT WIDE COMPLEX TACHYCARDIA WITH A PULSE	98
ADULT SYMPTOMATIC BRADYCARDIA	100
VENTRICULAR ASSIST DEVICE	102

7. TRAUMA GUIDELINES **103**

AMPUTATIONS	104
-------------	-----

BURNS	105
CRUSH INJURY	107
EYE INJURIES	108
FRACTURED EXTREMITIES	109
HEAD INJURY – INCREASING INTRACRANIAL PRESSURE	110
MAJOR TRAUMA	112
SEXUAL ASSAULT / RAPE	113
SPINAL MOTION RESTRICTION	114
TRAUMATIC CARDIAC ARREST	115

8. OBSTETRICAL / GYNECOLOGICAL GUIDELINES 116

CHILDBIRTH – ASSISTING WITH A FIELD DELIVERY	117
CHILDBIRTH – ABNORMAL: BREECH DELIVERY	119
CHILDBIRTH – ABNORMAL: LIMB PRESENTATION	121
CHILDBIRTH – ABNORMAL: PROLAPSED CORD	122
CHILDBIRTH – ABNORMAL: SHOULDER DYSTOCIA	123
CHILDBIRTH – ABNORMAL: WRAPPED (NUCHAL) CORD	125
CHILDBIRTH – POSTPARTUM HEMORRHAGE	126
PREECLAMPSIA	127
ECLAMPSIA	128

9. PEDIATRIC-SPECIFIC GUIDELINES 129

PEDIATRIC CARDIAC ARREST (NON-TRAUMATIC)	130
NEONATAL RESUSCITATION	132
PEDIATRIC NARROW COMPLEX TACHYCARDIA	134
PEDIATRIC WIDE COMPLEX TACHYCARDIA WITH A PULSE	135
PEDIATRIC BRADYCARDIA	136
BRIEF RESOLVED UNEXPLAINED EVENT (BRUE)	137
PEDIATRIC RESPIRATORY DISTRESS	138

10. ENVIRONMENTAL GUIDELINES 140

ACUTE MOUNTAIN SICKNESS (AMS)	141
BITES: ANIMALS / HUMANS / INSECTS	142
BITES: SNAKES	143
FROSTBITE	144
HEAT RELATED EMERGENCIES	145
HYPOTHERMIA	146

APPENDIX A: MCI INFORMATION 147

MULTI-CASUALTY INCIDENT (MCI)	147
START / JUMPSTART TRIAGE	149
SANDOVAL COUNTY SOUTH MCI PATIENT DISTRIBUTION	152
SANDOVAL COUNTY NORTH MCI PATIENT DISTRIBUTION	153
ALBUQUERQUE BERNALILLO COUNTY MCI PATIENT DISTRIBUTION	154

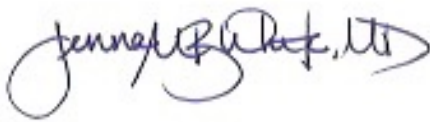
<u>APPENDIX B: SHOCK ALGORITHM</u>	<u>155</u>
<u>APPENDIX C: ACUPRESSURE GUIDELINES</u>	<u>156</u>
<u>APPENDIX D: MINORS CONSENT FOR HEALTH CARE SERVICES IN NEW MEXICO</u>	<u>160</u>
<u>APPENDIX E: MEDICATION FORMULARY</u>	<u>162</u>
<u>APPENDIX F: MEDICATION REFERENCE GUIDE</u>	<u>164</u>
<u>APPENDIX G: FIELD TRAUMA TRIAGE</u>	<u>171</u>
<u>APPENDIX H: SANDOVAL REGIONAL MEDICAL CENTER LEVEL III TRAUMA CENTER DESIGNATION</u>	<u>172</u>
<u>APPENDIX I: REVISIONS AND ADDITIONS</u>	<u>173</u>

1. ADMINISTRATIVE GUIDELINES

STATEMENT OF PURPOSE / APPROVAL FOR USERevised 2/15/2021

- The UNM Rural EMS Treatment Guidelines are written to provide evidence-based guidance for prehospital care, particularly in rural and frontier areas and in resource-limited situations. They are intended to guide the practice of the EMS providers of specific EMS agencies under the medical direction of UNM EMS Consortium Physicians
- These guidelines are meant to supplement the education and experience of EMS providers as well as individual agency policies and procedures. All treatment provided must conform to the New Mexico EMS Scope of Practice for the EMS provider's licensure level, as well as to all applicable federal, state, and local laws
- Every effort has been made to ensure the clarity, accuracy, and medical appropriateness of these guidelines. Should an EMS provider detect an error or a point of confusion, he or she should report it as soon as possible to both of the Medical Directors listed below
- Though many guidelines are unchanged, this 2/15/2021 version of the UNM Rural EMS Treatment Guidelines supersedes the 2/20/2020 version of the UNM Rural EMS Treatment Guidelines

**These UNM Rural EMS Treatment Guidelines are approved,
in accordance with NMAC 7.27.3, for use by EMS providers
and EMS agencies under the primary medical direction of:**



Jenna M. B. White, MD, FAEMS, DiMM
jmwhite@salud.unm.edu



Chelsea C. White IV, MD, NRP, FAEMS, FACEP
ccwhite@salud.unm.edu

Approval effective 2/15/2021, and in effect until superseded or replaced

GENERAL	<p style="text-align: center;"><u>HOW TO READ THESE GUIDELINES</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ General comments relevant to all providers will be listed here ➤ Information about the medical conditions discussed in the guideline will be listed here as well
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Treatments and considerations for providers of all levels are listed here
EMT	<ul style="list-style-type: none"> ➤ Treatments and considerations for EMTs and above are listed here ➤ EMTs shall consider them in addition to those in the ALL PROVIDERS section
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Treatments and considerations for EMT-Intermediates and above are listed here ➤ EMT-Intermediates shall consider them in addition to those in the ALL PROVIDERS and EMT sections
PARAMEDIC	<ul style="list-style-type: none"> ➤ Treatments and considerations for Paramedics are listed here ➤ Paramedics shall consider them in addition to those in the ALL PROVIDERS, EMT, and EMT-INTERMEDIATE sections
NOTES	<ul style="list-style-type: none"> ➤ Relevant notes, if any, will be listed here as information for all providers

GENERAL	<p style="text-align: center;"><u>EXCEPTIONAL EVENT REPORTING</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <p>➤ This guideline is intended to allow for rapid notification of agency supervision and the agency EMS Medical Director for specific sentinel events</p>
ALL PROVIDERS	<p>➤ EMS Providers shall contact their direct supervisor as soon as possible after the following situations. Once the supervisor is briefed, he or she will determine how urgently to contact the agency's EMS Medical Director:</p> <ul style="list-style-type: none"> • Significant mass casualty incident • Incident in which a UNM EMS Consortium Physician is requested to the scene to perform physician-level skills • Injury or illness of an agency EMS provider requiring evaluation or transport to a hospital • Pediatric cardiac arrest • Incident of medical error, equipment malfunction, or accidental harm inflicted to patient • Event requiring critical incident stress debriefing for providers • Unresolved conflict with a receiving physician or staff at the hospital • Event that results in request from media for comment • EMS vehicle accident resulting in injury to a citizen • Suspected drug diversion <p>➤ If the agency's EMS Medical Director is not available when one of these circumstances transpires, contact the on-call UNM EMS Consortium Physician</p>

GENERAL	<p style="text-align: center;"><u>DEAD AT SCENE</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ This guideline is intended to allow withholding of resuscitative efforts on obviously deceased patients ➤ For patients with Do-Not-Resuscitate (DNR), MOST, or other advanced directives, refer instead to the Do Not Resuscitate/Advanced Directives Guideline
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Resuscitation efforts may be withheld on a pulseless and apneic patient if any of the following criteria are present: <ul style="list-style-type: none"> • Rigor Mortis or Livor Mortis • Obvious external exsanguination • Decapitation • Burned beyond recognition • Massive open or penetrating trauma to the head or chest with obvious organ destruction and/or visible brain matter • Body decomposition • Visible brain matter in an apneic and pulseless patient ➤ Any pulseless and apneic patient not meeting any of these criteria should receive resuscitative efforts unless directed otherwise by the Do Not Resuscitate/Advanced Directives Guideline

GENERAL	<p style="text-align: center;"><u>DOCUMENTATION</u> <u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ These are the necessary <u>medical documentation</u> elements for an EMS call for service ➤ This guideline is to be used in conjunction with departmental policies, billing requirements, and applicable local, state, and federal regulations, all of which may specify documentation requirements in addition to what is detailed here
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ A unique run number and electronic run report is required every time EMS is requested ➤ This includes radio, phone, and drive-up/in-person requests for EMS services that result in patient transport, patient refusal, and cancelation prior to patient contact ➤ This also includes standbys, public appearances, body transports, and any other activity for which EMS is requested (such reports may be brief) ➤ Multiple patient incidents require a unique run number and report for each patient ➤ “Wait and return” requests require a unique run number and report for each direction ➤ Run reports involving patient contact should include, at a minimum, all of the following (except when circumstances do not allow or when patient refuses some or all evaluation and/or treatment and/or refuses to provide sufficient information): <ul style="list-style-type: none"> • Date, location, and nature of call • Relevant times, including (as applicable): <ul style="list-style-type: none"> ○ Call receipt, dispatch, en route, on scene or cancelation, departure from scene, arrival at destination, turnover at destination, available for calls • Patient name, age, gender, and billing address • Patient medical history, medication list, and allergy list • Complete charting of treatments performed and vital signs (as defined in Primary Management Guideline) • Narrative, describing: <ul style="list-style-type: none"> ○ WHY you were called (dispatch info, patient chief complaint) ○ WHAT you found when you arrived (scene/mechanism, focused physical exam, including pertinent positive and negative findings) ○ WHAT you did (all treatments performed) ○ WHY you did what you did (medical decision making) ○ HOW the patient responded to what you did ○ WHERE you took the patient ○ Any exceptions or complication affecting your ability to treat the patient • Attach/upload all cardiac rhythm strips, 12-lead ECGs, and/or ETCO₂ waveform strips <p style="text-align: center;">GO TO NEXT PAGE</p>

CONTINUED FROM PREVIOUS PAGE

- **For patient refusals**, include the following additional information as well:
 - Patient's ability to make an informed decision about their care
 - Discussion of the risks of refusal of treatment and/or transport
 - Patient's alternative plan (what patient plans to do instead of going with you to the hospital)
 - Reminder to patient to call back if they change their mind
 - Signature of patient and witness, if possible
 - Refer to **Refusal Criteria Guideline** as needed
- **Timeframe for completion of run reports, as per NMAC 18.3.14.24.D:**
 - “an ambulance service shall deliver an electronic or written copy of the completed pre-hospital patient care record to the receiving facility emergency department for inclusion in the patient's permanent medical record **upon delivery of the patient to the hospital**; in the event the unit is dispatched on another call, the patient care record shall be delivered as soon as possible after that call, but not later than the end of a shift or twenty four (24) hours after the transportation and treatment of the patient”

DO NOT RESUSCITATE / ADVANCED DIRECTIVES

Effective 2/20/2020

GENERAL

- EMS providers may be confronted with a variety of documents – or a lack of documentation – regarding a patient’s wishes to direct his or her medical care in the midst of a medical emergency
- This guideline attempts to clarify some of these documents as well as situations with incomplete or missing documentation
- **Important definitions, as adapted from 7.27.6 NMAC:**
 - **Advance directive:** a written instruction, such as a living will, durable power of attorney for health care or emergency medical services do not resuscitate form relating to the provision of health care when an individual is incapacitated
 - **Authorized health care decision maker:** a person authorized under a durable power of attorney to make health care decisions on behalf of another, a court-appointed guardian or the parent of a minor or any other person authorized by law to make health care decisions for another
 - **Durable power of attorney:** a document which designates an individual to make health care decisions for the person executing the document, or an advance health-care directive which designates an agent or surrogate to make health care decisions for an individual
 - **EMS do not resuscitate (DNR) order:** an order issued by a physician, advanced practice nurse, or physician’s assistant, and signed by the person or authorized health care decision maker, on a form approved by the New Mexico EMS Bureau, indicating that resuscitative measures should not be performed
 - **New Mexico Medical Orders for Scope of Treatment (MOST) form:** a New Mexico EMS Bureau approved advanced healthcare directive/healthcare decision that may be used either in conjunction with or as an alternative to the EMS DNR order; it must be signed by a physician, advanced practice nurse, or physician’s assistant and by the patient or patient’s healthcare decision maker
- An EMS DNR or MOST order may be revoked at any time orally, by executing a subsequent order, or by performing an act which indicates an attempt to revoke the order, such as by burning, tearing, canceling, obliterating or destroying the order or any part of it, by the person on whose behalf it was executed or by the person's authorized health care decision maker
- If there is any question about the validity of an EMS DNR order or MOST form, or there is any indication of an attempted homicide or suicide, initiate resuscitation until such time that the questions have been answered
 - If necessary, contact the on-call UNM EMS Consortium Physician as soon as possible for additional guidance

GO TO NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

ALL PROVIDERS

- Upon encountering a patient in **cardiac or respiratory arrest** who does not meet criteria in the **Dead On Scene Guideline**, reference appropriate medical treatment guideline and begin appropriate treatment unless or until an EMS DNR or MOST DNR is presented
- **Once an EMS DNR or MOST DNR is presented**, immediately verify:
 - Patient identity and that the form belongs to the patient
 - That the document has appropriate signatures
 - The instructions regarding desired medical care and/or care to be withheld
- If resuscitation has already started, or if you cannot immediately verify all of the above, initiate and continue basic life support measures only until verification is completed
- Once the DNR is verified, stop or do not initiate:
 - External chest compressions
 - Artificial ventilation
 - Intubation or other advanced airway adjuncts
 - Defibrillation or pacing
 - Cardiac medications
- **For a patient not in cardiac or respiratory arrest with a MOST form**, verify as described above, and then treat/withhold treatment as described on the form
- Incomplete, missing, or “verbal only” DNR:
 - EMS providers may encounter a patient in cardiac or respiratory arrest that has an incomplete DNR, a DNR that cannot be found, or with a knowledgeable bystander stating that the patient wishes to be DNR but does not yet have paperwork
 - EMS providers should initiate resuscitation according to appropriate medical guidelines and should contact the on-call UNM EMS Consortium Physician as soon as possible for additional guidance

GENERAL	<p style="text-align: center;"><u>EMERGENCY DEPARTMENT PATIENT TURNOVER</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ The Emergency Department staff assumes responsibility for a patient's care once a patient enters an ED. EMS providers will maintain continuity of care until report is given and patient turnover has occurred ➤ ED staff is expected to receive EMS providers in a timely manner after arrival to ED and direct them to the appropriate bed or ED area ➤ EMS providers shall give a complete prehospital report to ED staff and assist in moving patient to the hospital gurney ➤ Patient turnover should be completed within 15 minutes of ED arrival unless extenuating circumstances exist ➤ If patient turnover has not occurred within 15 minutes, the EMS crew will seek a safe place to unload the patient, assuming patient condition allows. A complete written chart shall be left with the patient. The crew shall notify a medical member of the ED staff and provide a verbal report. The EMS crew shall then return to service <ul style="list-style-type: none"> • In such cases, the EMS crew shall notify their duty officer/supervisor as soon as possible after returning to service

GENERAL	<p style="text-align: center;"><u>MCEP AND UNM EMS CONSORTIUM PHYSICIANS</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ This guideline outlines when to consult a Medical Control Emergency Physician (MCEP), either at an Emergency Department or with the UNM EMS Consortium
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ The UNM Rural EMS Guidelines serve as indirect medical orders for EMS providers ➤ If needed or desired by an EMS provider, direct medical consultation may be provided by an MCEP, either in person on scene or remotely via phone, radio, or other telecommunication while patient care is being rendered by the EMS provider ➤ Direct medical consultation is available by contacting the Medical Control Emergency Physician (MCEP) at an Emergency Department, preferably at the hospital to which the patient is being transported (or would otherwise be transported in the case of patient refusal) ➤ For more challenging clinical situations or complex refusal of transport, EMS providers are encouraged to contact the on-call UNM EMS Consortium Physician on call: <ul style="list-style-type: none"> • UNM EMS CONSORTIUM PHYSICIANS CAN BE REACHED THROUGH ALBUQUERQUE AMBULANCE SERVICE AT 505-449-5710 • Involvement of UNM EMS Consortium Physicians in patient care in no way mandates transport of a patient to UNM facilities

PATIENTS IN LAW ENFORCEMENT CUSTODY

Effective 2/20/2020

GENERAL

- **Patients in Law Enforcement custody shall be treated like all other patients**
- If an individual in the custody of a Law Enforcement officer desires treatment and transport by EMS, this should be offered to the patient
- Unless otherwise specified in EMS agency-specific policies, guidelines, and /or protocols, EMS providers cannot under the UNM Rural EMS Treatment Guidelines determine if a patient is safe for detention. This determination must be made at a hospital, or the if the facility is capable, at the receiving detention center
- Any Law Enforcement officer who refuses treatment and transport on behalf of an individual in their custody should be informed of the risks of non-transport and advised of the liability that the officer assumes for outcomes occurring as a result of the decision to deny the individual treatment and transport
 - This discussion should be documented thoroughly, and the Law Enforcement officer should be asked to sign the refusal document
- Patients in custody of a Law Enforcement Officer will be accompanied by that officer in the back of the ambulance. EMS providers cannot maintain custody of patients. Such patients may be in handcuffs or other Law Enforcement restraints at the discretion of the officer, but may not be handcuffed to the stretcher or any other EMS equipment
 - The Law Enforcement Officer must be able to immediately release handcuffs/other Law Enforcement restraints should patient condition dictate their removal
 - Certain unavoidable circumstances may require the Law Enforcement Officer to instead follow immediately behind the transport unit in his or her own vehicle; the officer **MUST** be able to immediately get in the transport unit if the patient escalates or if medical condition requires release of handcuffs/other Law Enforcement restraints

GENERAL	<p style="text-align: center;"><u>PHYSICIAN ON SCENE</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ This guideline delineates the role of on-scene physicians and interactions between on-scene physicians and EMS providers ➤ All of the UNM EMS Consortium Physicians are contractually designated as either the primary EMS Medical Director or as an Assistant EMS Medical Director for all the EMS agencies specifically authorized to use these guidelines; certain exceptions apply for UNM EMS Consortium Physicians to the points below
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ A physician physically present on scene who offers to assist in the patient's care may be allowed to do so if the following conditions are met: <ul style="list-style-type: none"> • The physician identifies him or herself to the EMS provider in charge of patient care as a currently licensed physician in the State of New Mexico • The physician agrees to accompany the patient to the hospital and to provide patient care until patient care is appropriately transferred to hospital medical staff <ul style="list-style-type: none"> ○ An on-scene UNM EMS Consortium Physician does not have to accompany the patient to the hospital unless he or she performs interventions outside the New Mexico EMS Scope of Practice of the highest licensed EMS provider on scene • The physician agrees to sign the EMS run report in the "Medical Control" section ➤ If a pre-established physician-patient relationship exists between a patient and a physician on scene, that physician shall maintain control of patient until he or she expressly relinquishes it to EMS or to another online consulting Medical Control Emergency Physician (MCEP) <ul style="list-style-type: none"> • Reasonable effort should be made to assist this physician with patient care, but EMS providers may not violate their scope of practice, nor may they perform patient care that they feel is inappropriate at the order of an on-scene physician ➤ If any on-scene medical intervention ordered by an on-scene physician conflicts with these guidelines, EMS providers should place the on-scene physician in contact with the on-call UNM EMS Consortium Physician. If a conflict remains, EMS personnel shall defer to the direction provided by the UNM EMS Consortium Physician

REFUSAL CRITERIA

Effective 2/20/2020

GENERAL

- EMS providers should respond to all calls for EMS service with the intention of providing appropriate medical care and with the assumption that the call will result in transport to an Emergency Department
 - At no time should providers attempt to discourage a patient from being transported. Treatment and transport to a hospital should always be offered
- Adults and emancipated minors who demonstrate understanding of the risks of refusal of treatment and/or transport are generally allowed to refuse, even if against medical advice
 - This generally does not apply to patients who are suicidal and/or have demonstrated that they are a danger to themselves or others
 - Unemancipated minors may make decisions in certain circumstances; reference **Appendix D: Minors' Consent for Health Care Services in New Mexico**
 - Reference **Involuntary Transport Guideline** for guidance on transporting a patient against his or her wishes
- Parents/legal guardians of unemancipated minors who demonstrate understanding of the risks of refusal of treatment and/or transport are generally allowed to refuse treatment and/or transport on behalf of an unemancipated minor, **unless**, in the opinion of the EMS provider, refusal places the minor at risk of further harm
 - EMS providers should have a very low threshold to involve Law Enforcement and attempt to transport a minor against the wishes of parents/legal guardians who are making unsafe decisions about the care of the minor
- **If an EMS provider feels that refusal of treatment and/or transport is not in the best interest of patient**, but patient does not meet threshold for involuntary transport:
 - Reiterate the risks of refusal of treatment and/or transport
 - Consider consulting the on-call UNM EMS Consortium Physician for additional insight, and if necessary, to talk directly with the patient in an attempt to convince him or her to accept treatment and/or transport
 - While the EMS provider alone has the authority to "force transport" (the Physician does not), the Physician may be able to convince the patient to accept treatment and/or transport, or may help the EMS provider decide whether or not to force transport
 - The Physician may be especially helpful in high risk situations including but not limited to: syncope, cardiac complaints, BRUE, questions of patient decision-making capacity, obvious life threats, minors, etc.
- **If the patient still wishes to refuse treatment and/or transport**, read the liability release aloud to the patient, and have the patient sign
 - Patient may sign the electronic patient report or a paper liability release
 - Paper copies shall be attached/uploaded to the electronic patient report
 - If possible, obtain signature of witnesses, preferably a family member, bystander, or Law Enforcement officer, especially if patient refuses to sign
- Refusal must be documented thoroughly in the electronic patient report; reference **Documentation Guideline** for additional guidance

GENERAL	<p style="text-align: center;"><u>RESPONSIBILITY FOR PATIENT CARE</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ The responding EMS provider with the highest level of EMS licensure is ultimately responsible for patient care while on scene or in transport, regardless of agency rank or affiliation ➤ Should an EMS provider with higher level of licensure arrive on scene after patient care has been initiated, responsibility for patient care shall be passed to that provider as soon as it is possible to brief that provider with a patient care report ➤ In the event that several EMS Providers with the same level of licensure respond to a scene, the provider arriving first on the scene shall be responsible for patient care <ul style="list-style-type: none"> • Providers from a mutual aid agency or outside district will be subordinate to providers of equal EMS licensure from the agency or district in which a call originates ➤ If the provider initially responsible for patient care is not with the transporting unit, the transporting unit crew member with the highest level of EMS licensure shall assume responsibility of patient care on arrival and should receive a patient report from the most appropriate on scene EMS provider ➤ Responsibility for patient care may be transferred from a higher licensed non-transporting EMS provider to a transporting provider of lower EMS licensure if patient condition can be addressed within the scope of practice of the provider of lower EMS licensure ➤ Except in unusual circumstances, if patient condition exceeds the scope of practice of the highest licensed transporting EMS provider, a higher licensed non-transporting EMS provider shall accompany the patient and transporting crew to the hospital and shall retain responsibility for patient care, according to applicable agency policies and agreements, and applicable laws ➤ Once in transport, the transporting EMS provider of highest EMS licensure level may delegate patient care duties to an EMS crew member of lower licensure if patient needs can be addressed within the scope of practice of the provider of lower EMS licensure <ul style="list-style-type: none"> • In this case, the higher licensed transporting EMS provider retains responsibility for patient care and is expected to immediately assume patient care duties should patient needs escalate or should the provider of lower EMS licensure become uncomfortable providing care at his or her level ➤ A recognized active EMS agency member trained in First Aid/AED/CPR but without an EMS license may assist in providing patient care under the direction of the licensed EMS provider responsible for patient care. The presence of non-licensed EMS agency members does not release an EMS service from the staffing requirements as outlined by the New Mexico EMS Bureau or the New Mexico Public Regulation Commission
	<p>NOTES</p> <ul style="list-style-type: none"> ➤ Transfer to a lower level of care is acceptable in an MCI, even if a higher level of care is desirable, to ensure the greatest benefit for the greatest number of patients

GENERAL	<p style="text-align: center;"><u>TREATMENT OUTSIDE OF GUIDELINES</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ This set of treatment guidelines is intended to help EMS providers address common presentations of common EMS patient complaints. ➤ Occasionally, EMS providers will be faced with a patient presentation that does not fit one of these guidelines ➤ If, by using his or her education and experience, the EMS provider believes that interventions outside of these guidelines are necessary and in the best interests of the patient, the EMS provider should discuss the situation with the on-call EMS Consortium Physician <ul style="list-style-type: none"> • The EMS provider should explain that no guideline exists to cover this particular situation • The EMS provider and the EMS Consortium Physician will decide how to proceed with the treatment of that patient ➤ Situations may also arise involving patients with uncommon conditions requiring specific out of hospital administered medications or procedures. Family members and or caregivers trained and knowledgeable of the special needs of the patient should be recognized as the expert regarding the care of the patient <ul style="list-style-type: none"> • The EMS provider can offer assistance only, and only within the New Mexico EMS Scope of Practice for the EMS provider's level of licensure. The EMS Consortium Physician can be a resource in such situations as well ➤ If the EMS provider is unable to contact an EMS Consortium Physician for any reason, the EMS provider may consider all medically appropriate interventions described within these guidelines and/or within the New Mexico EMS Scope of Practice for the EMS provider's level of licensure. <u>Under no circumstances should an EMS provider violate the scope of practice, even if instructed to do so by a consulting physician</u> ➤ Any treatment rendered outside of guidelines, regardless of whether it was discussed with an EMS Consortium Physician, shall be clearly charted as such in the patient run report and promptly reported to the EMS provider's appropriate supervisor

GENERAL	<p style="text-align: center;"><u>VACCINATIONS</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ To optimize the ability for EMS personnel to administer immunologic agents within their own or surrounding agencies based on New Mexico State Scope of EMS Practice
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Administration of immunizations, vaccines, biological agents, and tuberculin skin testing (TST) is authorized under the following circumstances: <ul style="list-style-type: none"> • To the general public as part of a Department of Health (DOH) initiative or emergency response, utilizing DOH guidelines. The administration of immunizations is to be under the supervision of a public health physician, nurse, or other authorized public health provider • Administer vaccines to EMS and public safety personnel • TSTs may be applied and interpreted if the licensed provider has successfully completed required DOH TST training • In the event of a disaster or emergency, the State EMS Medical Director or Chief Medical Officer of the DOH may temporarily authorize the administration of other immunizations, vaccines, biological agents, or tests not listed above

2. TRANSPORT GUIDELINES

GENERAL TRANSPORT CONSIDERATIONSEffective 2/20/2020

- In general, scene time should be minimized and transport to a hospital should be initiated as soon as practical, especially if patient is experiencing a time-sensitive medical condition
- On scene treatments should be limited to those that are critical/lifesaving and/or those that would change course of treatment
 - Trauma example: gaining control of massive hemorrhage
 - Medical example: obtaining 12-lead ECG for acute chest pain
- Procedures that are less critical should be performed en route to the hospital if possible
- Reference **Appendix F: Field Trauma Triage Guideline** for specific guidance regarding appropriate destinations for trauma victims
 - Any full-thickness burn, partial thickness burns >20% TBSA and those involving joints, the face, the airway, the genitalia, or that are circumferential around an extremity should be transported to UNMH

GENERAL	<p style="text-align: center;"><u>ALS / ILS INTERCEPT</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ When a patient being transported by BLS or ILS unit needs care outside of the scope of the transporting EMS providers, consider requesting an ALS intercept <ul style="list-style-type: none"> • A BLS unit may instead request an ILS intercept if ILS is sufficient or no ALS unit is available ➤ The intercept should be arranged as early as possible to expedite transfer of care ➤ The benefit of the intercept should outweigh risk of time delay and roadside danger ➤ A safe intercept point should be coordinated through the EMS agency Communications Center/Dispatch until the units are close enough for direct car-to-car communication ➤ The intercept point should be chosen to minimize the amount of time the first unit is stationary while waiting for the intercepting unit

HELICOPTER UTILIZATION

Effective 2/20/2020

- Patients with time-sensitive, life-threatening conditions may benefit from helicopter critical care transport in two general scenarios:
 - When time from first medical contact to arrival at an appropriate hospital will be significantly shortened by utilizing a helicopter compared to ground transport
 - When helicopter crew can initiate critical clinical interventions outside the scope of available ground transport units significantly sooner than could be initiated at an appropriate hospital following urgent ground transport
- Helicopters may also be useful in other situations as well, such as:
 - Multiple victim incidents
 - Disasters
 - When ground transport is complicated due to mechanical failure of ground response units, remote locations, poor road conditions, etc.
 - Trauma victims with prolonged extrication/prolonged scene time
- **Helicopter response time can be lengthy in remote areas. Once patient is packaged and ready for transport, unless helicopter ETA to scene is less than 10 minutes, initiate ground transport towards the most appropriate hospital. Select an intercept point/landing zone along that route that minimizes the amount of time the ground unit is stationary while waiting for helicopter to land**
- All requests for helicopter transport shall be coordinated through the EMS agency Communications Center/Dispatch

GENERAL	<p style="text-align: center;"><u>INVOLUNTARY TRANSPORT</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Per <u>New Mexico Statute 24-10B-9.1</u>, “Emergency Transportation”: “Any person may be transported to an appropriate health care facility by an emergency medical technician, under medical direction, when the emergency medical technician makes a good faith judgment that the person is incapable of making an informed decision about his own safety or need for medical attention and is reasonably likely to suffer disability or death without the medical intervention available at such a facility.” ➤ While a hospital MCEP or the on-call UNM EMS Consortium Physician can help an EMS provider determine if a person is incapable of making an informed decision, the statute clearly gives the authority to the EMS provider to transport a patient against his or her will ➤ If possible, at least two EMS providers should ride in the back of the transport unit during an involuntary transport, for added EMS provider protection and as a witness when the patient is physically or chemically restrained
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Physical and Chemical Restraint Guideline ➤ Reference Patients in Law Enforcement Custody Guideline ➤ Reference other relevant treatment guidelines based on patient’s underlying condition ➤ Perform as much of the patient assessment as possible prior to application of restraint ➤ Request Law Enforcement at the earliest opportunity ➤ Ensure the presence of sufficient personnel to safely apply restraints if required ➤ Run report documentation should include treatment, names of officers, witnesses and, if utilized, the MCEP or UNM EMS Consortium Physician

GENERAL	<p style="text-align: center;"><u>MENTAL HEALTH PICKUP ORDERS</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Per <u>New Mexico Statute 43-1-10</u>, “Emergency mental health evaluation and care” a peace officer may detain and transport a person for emergency mental health evaluation and care if “a licensed physician or a certified psychologist has certified that the person, as a result of a mental disorder, presents a likelihood of serious harm to himself or others and that immediate detention is necessary to prevent such harm. Such certification shall constitute authority to transport the person” ➤ Such certification is and “Certificate for Evaluation”, commonly referred to as a mental health “pick-up order” ➤ Execution of a pick-up order is the responsibility of Law Enforcement, not EMS ➤ If, while executing a pick-up order, a Law Enforcement Officer observes a medical condition, the officer may request EMS for evaluation and possible transport to a hospital for treatment of that medical condition <ul style="list-style-type: none"> • If EMS agrees that a medical condition may exist, EMS will treat and transport as needed, with an officer riding in the patient compartment during the transport to maintain custody of the patient • If, after on-scene evaluation, the EMS provider determines that no urgent/emergent medical condition exists and/or the patient makes an informed refusal to be transported by ambulance, Law Enforcement will retain responsibility to transport the patient to an appropriate facility for evaluation ➤ Under no circumstances shall EMS be requested or compelled to execute a pick-up order
NOTES	<ul style="list-style-type: none"> ➤ New Mexico Statute 43-1-10 “Emergency mental health evaluation and care” contains other provisions for Law Enforcement transport for medical/psychiatric conditions; this is the Law Enforcement equivalent of New Mexico Statute 24-10B-9.1 “Emergency Transportation”, which describes the conditions under which an EMS provider can transport a patient against his or her will ➤ Knowledge of both statutes is recommended for all EMS providers

GENERAL	<p style="text-align: center;"><u>MINOR (UNDER 18) TREATMENT CONSIDERATIONS</u></p> <p style="text-align: center;"><u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ A minor must be legally emancipated to make decisions regarding healthcare ➤ Per <u>New Mexico Statute 32A-21-3</u>, “Emancipated minors”, to be legally emancipated, the minor must be at least 16 years of age and meet <u>at least one</u> of the following criteria: <ul style="list-style-type: none"> • Currently or previously married • Active military • Legally declared emancipated in a court of law ➤ Pregnancy or parenthood does automatically not emancipate a minor, though an unemancipated minor mother can still make decisions for her minor child ➤ When in doubt, consult the on-call UNM EMS Consortium Physician for guidance ➤ Certain exceptions apply; reference Appendix D: Minors’ Consent for Health Care Services in New Mexico
NOTES	<ul style="list-style-type: none"> ➤ When dealing with the emancipation issues, document statements made by the patient regarding their emancipation status in the electronic run report when the appropriate documentation (marriage certificate, court order, etc.) is not readily available. Err on the side of providing appropriate care to patient

TRANSPORT IN MEDICAL RESCUE UNIT

Effective 2/20/2020

GENERAL

- Certain situations may require transport of a patient in a New Mexico EMS Bureau-certified transport-capable medical rescue unit (“medical rescue”)
- Such transport may occur to an intercept point with a New Mexico Public Regulation Commission certified transport unit (“transport unit”), to an intercept point/landing zone with a helicopter, or directly to an appropriate hospital
- Such transport is permissible and encouraged if in the best interest of the patient(s)
- Scenarios requiring patient transport in a medical rescue to an intercept point or to a hospital include, but are not limited to:
 - The nearest appropriate transport unit has an extended response time, or one is not available
 - The medical rescue is outfitted to cover terrain that a transport unit may not be able to access
 - Mass Casualty Incidents and Disasters
- The medical rescue must be staffed with at least one licensed EMS provider in the patient compartment during patient transport

SELECTION OF DESTINATION HOSPITAL / DIVERSION

Effective 2/20/2020

GENERAL

- This guideline discusses selection of destination hospitals for individual patients during normal EMS operations
- **In case of certain time-sensitive, life threatening conditions**, guidelines elsewhere within the UNM Rural EMS Treatment Guidelines mandate bypassing closer hospitals in favor of hospitals with special ability to care for the patient's specific condition
 - In these situations, the transport unit should bypass closer hospitals only if the patient is stable enough to tolerate the additional travel time at the discretion of the transport unit crew
- **If the patient does not have a condition requiring transport to a specialty center:**
 - If the patient has a hospital preference, the transport unit will transport to the hospital of patient's choice, unless transport to that hospital will take the transport unit out of its primary coverage area for too great of an interval
 - If the patient does not have a hospital preference, or if the patient's preferred hospital will take the transport unit out of its primary coverage area for too great of an interval, the patient shall be transported to the closest appropriate facility capable of providing definitive care and treatment
- Some smaller, outlying hospitals may lack capability to care for certain patients, and may sometimes request that the transporting unit to **divert to another facility**
 - Transporting units should attempt to honor diversion requests IF patient is stable enough to tolerate the additional time incurred by bypassing that facility
 - Such diversion requests should be denied/overridden by the transporting unit EMS providers when patient is not stable enough to tolerate the additional transport time incurred by bypassing the closer facility
 - In such cases, the unit should transport to the closest hospital for stabilization and should immediately advise the receiving hospital that they are overriding the diversion request
 - Such cases shall be reported as soon as possible to the agency duty officer/supervisor as well as the agency EMS Medical Director
- If a transport unit arrives on the property of a hospital (crosses the driveway), the hospital is legally obligated to accept the patient and perform a medical screening exam (MSE), per the Emergency Medical Treatment and Labor Act (EMTALA)
 - A transport unit shall not accept a request to divert to another facility if they are already on hospital property
 - Exception: a transport unit may arrange a helicopter intercept on a hospital helipad without obligating the hospital to accept patient and perform MSE

NOTES

- **This guideline does not apply during declared and bannered Multi-Casualty Incidents** – for patient destination/distribution during MCIs, reference the MCI Patient Distribution Algorithm specific to the locale of the MCI
- **No requests for diversion shall be honored during a declared and bannered MCI**

EASTERN CIBOLA COUNTY PATIENT DESTINATION

Effective 2/20/2020

CRITICAL PATIENT TOO SICK FOR TRANSPORT TO ALBUQUERQUE:

Includes, but not limited to: airway catastrophe, impending arrest, status epilepticus, etc. (may vary based on EMS crew licensure)

- Transport urgently to closest hospital (may be ACL)
- Contact closest hospital as early as possible
- Arrange intercept with additional EMS unit(s) if practical

TIME SENSITIVE EMERGENCY BUT STABLE FOR TRANSPORT TO ALBUQUERQUE:

Includes, but not limited to: STEMI, CVA, major trauma, etc.

- Transport urgently to appropriate Albuquerque hospital
- Arrange intercept with additional EMS unit(s) if needed and practical

Stable patient requesting transport to ACL Hospital:

- Contact ACL Hospital via phone or radio to determine if ACL will accept
- Make contact with ACL before diversion would cause you to turn around
- If diversion is requested, choose new destination based on patient preference, patient condition, and location

Stable patient requesting hospital other than ACL:

- Transport to requested hospital
- For IHS patients: inform patient that he or she will need to contact ACL within 72 hours to arrange coverage; coverage is not guaranteed

Notes:

- Please document destination decision in run report
- If requested to divert from ACL, please document ACL provider and reason in run report
- Generally acceptable destination hospitals: ACL, Cibola General, Albuquerque metro hospitals; Gallup hospitals and Crownpoint IHS in select circumstances

TRAUMA AND MEDICAL DESIGNATION – ST. VINCENT’S HOSPITAL

Effective 2/20/2020

- St. Vincent’s Hospital in Santa Fe refers to their trauma and medical patients as Stable, Serious, or Critical as per below

Medical and Trauma Designation Criteria

- **Stable** - Patient is stable, with no apparent risk of developing a life-threatening or disabling condition. Non-emergent transport is appropriate
- **Serious** - Patient is at moderate risk of developing a life-threatening or disabling condition. Most circumstances will merit non-emergent transport
- **Critical** - Patient has a severe and acute life-threatening or disabling condition. Immediate intervention is required. Emergency transport is at the EMS provider’s discretion. Examples include penetrating and/or blunt trauma injuries to chest and/or abdominopelvic cavity with unstable vitals, or if patient presents with vitals indicating s/he is likely to deteriorate

GENERAL

3. GENERAL GUIDELINES

GENERAL	<p style="text-align: center;"><u>PRIMARY MANAGEMENT</u> <u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ This guideline establishes the evaluation steps that are to be completed or considered during every patient encounter, except when circumstances do not allow or when patient refuses some or all evaluation and/or treatment ➤ These steps are to be completed prior to and in conjunction with steps outlined in guidelines specific to the patient's condition and presenting complaint(s)
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Rapidly assess for and immediately address major hemorrhage, airway, breathing, circulation, and level of consciousness ➤ Obtain chief complaint ➤ Obtain complete medical history, list of medications, and list of allergies ➤ Obtain Initial Vital Signs, including: <ul style="list-style-type: none"> • Respiratory effort, rate and depth • Pulse rate, strength, regularity, and site • Blood Pressure • Oxygen Saturation (SpO₂) • Skin color and turgor ➤ Consider performing/obtaining the following, based on patient presentation/chief complaint, and history: <ul style="list-style-type: none"> • Blood glucose • Temperature (oral, tympanic, or temporal) • 3-lead ECG monitor/rhythm strip • 12-lead ECG • Capnography (ETCO₂)
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Consider peripheral IV/IO access for fluid and/or medication administration ➤ Consider fluid bolus as indicated
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG, if obtained

GENERAL	<p style="text-align: center;"><u>ADMINISTERING A PATIENT'S OWN MEDICATIONS</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ In general, medication provided by EMS providers should be from EMS agency stock ➤ An EMS provider may administer a medication belonging to a patient only if: <ul style="list-style-type: none"> • The specific medication is within the provider's EMS scope of practice • EMS Providers on scene do not have the specific medication OR an appropriate alternative medication • Additional responding EMS personnel who may have the medication or appropriate alternative medication are delayed • This delay is deemed detrimental to the patient ➤ Prior to administering a patient's medication, the provider must: <ul style="list-style-type: none"> • Confirm that medication is the patient's own, is not expired, and is appropriate for the current complaint • Confirm that there are no contraindications to administration of the medication ➤ If time/patient condition allows, the provider must also: <ul style="list-style-type: none"> • Ask the patient or bystander(s) if the patient has taken this or any other medication as of yet and if so, how much • Obtain a list of the medications that the patient is prescribed ➤ Medication administration is to be documented in typical fashion, with notation that patient's own medication was used
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Any EMS provider may administer the following medications belonging to a patient: <ul style="list-style-type: none"> • Bronchodilators, using pre-measured or metered dose inhalation device (such as nebulizers or inhalers) for acute bronchoconstriction • Naloxone via nasal atomizer device (MAD) or intramuscular (IM) injector • Epinephrine via intramuscular (IM) injector
INTERMEDIATE	<ul style="list-style-type: none"> ➤ In addition to the above medications, an EMT-Intermediate or above may administer a patient's own Glucagon

EMERGENCY INCIDENT REHAB

Effective 2/20/2020

GENERAL

- Firefighters die of stress and overexertion illnesses more often than burns/injuries on the fireground. This guideline is intended to guide Fire Officers and EMS providers in the care of firefighters during operations on the fireground. It is to be used in conjunction with (or may be superseded by) specific departmental guidelines and policies established for this purpose
- Key principles of Emergency Incident Rehabilitation (EIR) include the following:
 - Adequate hydration and rest should be maintained at all times while on shift
 - Provide regular medical monitoring of each firefighter (FF) to allow early identification of stress and heat related illness
 - Immediately identify and treat any potentially serious medical condition or injuries detected during an emergency incident
 - Baseline resting and post-aerobic vital signs for each member should be confidential but accessible to the rehab sector
 - Pay special attention to members on beta-blockers, calcium channel blockers, or diuretics as those drugs alter response to heat and cardiovascular stress

ALL PROVIDERS

- **In the fireground rehab sector:**
 - Obtain and record vital signs, HR, BP, Pulse Oximetry, CO (when available) on each firefighter reporting to rehab. If HR > 120, consider obtaining and recording tympanic temperature and record it
 - Question personnel and evaluate for medical history and current symptoms.
 - Based on the assessments and re-assessments of the personnel, there can be several dispositions as follows:
 - **Triaged to Rest and Rehabilitation:**
 - Reassess VS after 20 minutes; if within normal limits, may return to duty
 - If cannot take or keep down oral re-hydration, assign to treatment area
 - **Triaged to Medical Evaluation and Treatment Area:**
 - If FF has injuries, HR > 120 at entry, BP > 200 systolic or between 100 - 120 diastolic, or < 90 systolic, re-assess VS after 10 - 20 minutes and log VS
 - If after 20 minutes with oral re-hydration and rest VS have not returned to normal, remove from duty

GO TO NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

- If HR > 140 after approximately 20 minutes, or cannot take or keep down oral fluids, initiate IV, NS 1 L bolus, and re-assess. May repeat twice prior to consultation with on-call EMS Consortium Physician. If HR, BP, temp return to normal and FF is able to take oral fluids and keep them down, may return to duty
- **Immediate Transport to Hospital Required:**
 - If FF temperature is > 101, HR is > 140 after 20 minutes, if FF has significant injuries, or any of the following signs or symptoms of heat exhaustion/stroke or other serious illness are present:
 - Headache
 - Vomiting
 - Chest Pain
 - SOB
 - Altered Mental Status
 - Irregular pulse
 - Systolic BP > 200 after cool-down, and diastolic > 130 at any time
 - If transport is initiated, reference the appropriate guideline for treatment

➤ **General Guidelines for Rehab:**

- Unusual symptoms such as excessive salivation, runny nose, and diarrhea may indicate organophosphate exposure/poisoning. Burning eyes could indicate exposure to chemicals or metal gases. These and any other unusual symptoms should be reported to IC immediately
- Adequate water, electrolyte containing fluid and energy-containing carbohydrates should be available. Do not provide products that contain caffeine. Cool fluids and shade in warm weather should be a goal, as should warm fluids, warm rehab area in cold weather
- Notify IC of disposition of personnel, per Department SOG

GENERAL	<p style="text-align: center;"><u>INFUSION PUMP</u> <u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ Infusion pumps allow for the safest delivery of infused medications (drips) by allowing EMS providers to tightly control delivery rates, volume and quantity of drug delivered ➤ All medication infusions shall be delivered via infusion pump <ul style="list-style-type: none"> • In the rare case of infusion pump malfunction or in absence of an infusion pump, infusions may be given via flow regulator device (e.g., Dial-a-Flow) and/or mini-drip set, unless infusion pump is required by New Mexico State EMS Scope of Practice
INTERMEDIATE	<ul style="list-style-type: none"> ➤ The following medications should be delivered via infusion pump: <ul style="list-style-type: none"> • Antibiotics during interfacility transports (required by New Mexico State EMS Scope of Practice) • Infusion pump should be strongly considered for pediatric Normal Saline or Lactated Ringers boluses • Dextrose 10% can be delivered by via infusion pump if desired
PARAMEDIC	<ul style="list-style-type: none"> ➤ Additional medications to be delivered via infusion pump when infusion/drip is indicated: <ul style="list-style-type: none"> • Amiodarone infusions • Epinephrine infusions • Lidocaine infusions • Magnesium infusions • Norepinephrine infusions • All other medications in the New Mexico State EMS Scope of Practice that require the use of an infusion pump ➤ Refer to Appendix F: Medication Reference Guide as needed for infusion mixing recommendations

GENERAL	<p style="text-align: center;"><u>INTRAOSSEOUS ACCESS</u> <u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ IO access is indicated for rapid vascular access when IV access is difficult or limited ➤ Contraindications for use include: <ul style="list-style-type: none"> • Fracture proximal to the proposed insertion site • History of Osteogenesis Imperfecta (brittle bone disease) • Current or recent infection at proposed insertion site • Previous joint replacement at proposed insertion site • Previous IO insertion/attempt within past 24 hours at proposed insertion site • Inability to locate landmarks or excessive tissue
INTERMEDIATE	<ul style="list-style-type: none"> ➤ A powered IO insertion device (example: Easy IO device) should be the IO device of choice in most patients requiring IO access, if available ➤ A manual IO insertion device (example: Jamshidi IO needle) may be the primary device for services that do not carry a powered IO insertion device, and may be the back-up device to a powered IO insertion device ➤ Acceptable IO insertion sites by an EMT-Intermediate include: <ul style="list-style-type: none"> • Humeral head (adult patients only) • Distal tibia (adult patients only) • Proximal tibia (adult and pediatric patients) ➤ EMT-Intermediates may consider 2% Lidocaine for pain for <u>adult patients only</u>: <ul style="list-style-type: none"> • Adult dose: 2 mL (40 mg) IO, infused over 1-2 minutes, flushed with 10 mL NS <ul style="list-style-type: none"> ○ An additional 1 mL (20 mg) IO may be given if needed
PARAMEDIC	<ul style="list-style-type: none"> ➤ Acceptable sites for IO insertion by a Paramedics for all patients include: <ul style="list-style-type: none"> • Humeral head • Proximal tibia • Distal tibia ➤ Paramedics may consider 2% Lidocaine for pain for all patients: <ul style="list-style-type: none"> • Adult dose: 40 mg (2 mL) IO, infused over 1-2 minutes, flushed with 10 mL NS <ul style="list-style-type: none"> ○ An additional 20 mg (1 mL) IO may be given if needed • Pediatric dose: 0.5 mg/kg, up to 40 mg (2 mL) IO, infused over 1-2 minutes, flushed with 5-10 mL NS <ul style="list-style-type: none"> ○ An additional 0.25 mg/kg, up to 20 mg (1 mL) IO, may be given if needed

GENERAL	<p style="text-align: center;"><u>PHYSICAL AND CHEMICAL RESTRAINT</u> <u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ A patient's behavior may threaten his or her own safety and/or that of EMS providers ➤ Such behavior may be due to an acute medical condition, toxic exposure, substance abuse, traumatic brain injury, or mental or emotional health crisis ➤ In these situations, EMS providers must prioritize their own safety, which may mean: <ul style="list-style-type: none"> • Waiting for law enforcement to secure the scene before entering • Waiting for additional EMS personnel • Physically distancing yourself from the patient • Leaving the scene altogether if it becomes volatile or unsafe ➤ Verbal de-escalation skills and conflict resolution techniques may reduce the need for physical or chemical restraint ➤ Any patient exhibiting extreme agitation or other signs of excited delirium should receive pharmacologic sedation not only for their own and EMS providers' safety, but as a protective measure against cardiovascular collapse
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Altered Mental Status Guideline ➤ Reference Airway Management Guideline ➤ Reference treatment guidelines relevant to any underlying condition ➤ Ensure adequate number of responders to properly apply physical restraints to patient <ul style="list-style-type: none"> • Never restrain a patient in the prone or "hog-tie" positions • Always restrain all 4 limbs • Hobble restraints are not to be used ➤ Once patient is restrained, closely monitor all vital sign parameters. A restrained patient is a high-risk patient ➤ Apply continuous ETCO₂ monitoring (if available) ➤ Apply cardiac monitor and obtain 12-lead ECG (if available)
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated <p style="text-align: center;">GO TO NEXT PAGE</p>

CONTINUED FROM PREVIOUS PAGE

PARAMEDIC

- Consider **Midazolam** for patient and provider safety and for any patient requiring physical restraints
 - **Adult Dose:** 10 mg IM/IN; 5 mg IV/IO; may repeat every 10 minutes as needed
 - **Pediatric Dose:** 0.2 mg/kg IM/IN, up to maximum dose of 10 mg; 0.1 mg/kg IV/IO, up to maximum dose of 5 mg; may repeat every 10 minutes as needed
- Interpret 12-lead ECG

GENERAL	<p style="text-align: center;"><u>TASER PROBE REMOVAL</u> <u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ This guideline is to be used in conjunction with all relevant treatment guidelines ➤ Evaluation/manipulation of the TASER probe should be appropriately prioritized based on patient presentation ➤ Remember that patient's behavior before and/or after being tazed may be secondary to hypoxia, hypoglycemia, trauma, intoxication, and/or CNS abnormalities ➤ Decision to transport patient to a hospital should be made based on patient's medical situation and not unduly influenced by patient's legal situation
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Evaluate the anatomical location of the probe(s) puncture zones. Retained TASER probes in the following high-risk/sensitive zones require transport to a medical facility for removal: <ul style="list-style-type: none"> • Head (including eyes and ears), neck, breasts, groin, hands, feet, or joints ➤ Stabilize one of your hands against the patient and pull/remove the probe with the other. If possible, make sure both of your hands are least eight inches away from the probe to avoid raking your hand with the barbed tip ➤ Thoroughly irrigate the puncture site with water or saline ➤ Examine the probe and the patient to see if the barbs broke off. If a barb remains in the subject, the patient will need to be transported to a medical facility for removal ➤ Return the probe to Law Enforcement personnel for storage as evidence ➤ If patient is not going to the hospital with EMS, inform patient of basic wound care and the need to seek additional care in event that signs of infection occur
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG, if obtained

4. AIRWAY GUIDELINES

GENERAL	<p style="text-align: center;"><u>AIRWAY MANAGEMENT</u></p> <p style="text-align: center;"><u>Revised 2/15/2021</u></p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Spinal Motion Restriction Guideline if spine injury suspected ➤ Reference Adult Respiratory Distress Guideline or Pediatric Respiratory Distress Guideline if needed ➤ Reference Foreign Body Airway Obstruction Guideline if obstruction suspected ➤ For all patients in respiratory arrest, failure, or distress: <ul style="list-style-type: none"> • Open airway to optimize path for air flow <ul style="list-style-type: none"> ○ Jaw thrust if spine injury is suspected ○ Sniffing or ramped if spine injury is not suspected • Suction airway if needed • Place oral and/or nasal airway • Apply Oxygen as needed to maintain SpO₂ saturations 94-99% • Apply continuous SpO₂ and ETCO₂ monitoring ➤ If respiratory rate or effort is INEFFECTIVE OR if SpO₂ still < 85%: <ul style="list-style-type: none"> • Reference Continuous Positive Airway Pressure (CPAP) Checklist • If CPAP is ineffective or contraindicated, assist respirations with BVM <ul style="list-style-type: none"> ○ Typical adult ventilatory rate should be 10-12 breaths per minute (once every 5-6 seconds). Consider lower ventilatory rates in patients with asthma or COPD. Consider higher ventilatory rates in patients with acidosis (i.e. overdose, sepsis) ○ Pediatric ventilatory rates vary by age <ul style="list-style-type: none"> ▪ School age child: ~15 breaths per minute ▪ Toddler: ~20 breaths per minute ▪ Infant: ~30 breaths per minute ➤ If patient becomes AGONAL or APENIC: <ul style="list-style-type: none"> • Provide ventilations with BVM at a rate appropriate for age and patient condition ➤ Consider extraglottic airway (i.e. AuraGain, i-Gel, King Airway, LMA) if needed after above interventions have been considered ➤ Reference Mechanical Ventilation Guideline if needed ➤ Attempt to determine cause of patient's condition and reference appropriate guideline
PARAMEDIC	<ul style="list-style-type: none"> ➤ Consider intubation and reference Adult Intubation Checklist if unable to manage airway with any of the methods described above (age 13 or older) ➤ Reference Cricothyrotomy Checklist if unable to intubate and unable to ventilate

ADULT INTUBATION CHECKLIST

Effective 2/20/2020

- In general, intubation should be attempted only once; return to **Airway Management Guideline** or go to **Cricothyrotomy Checklist** if intubation is unsuccessful

INTUBATION CONTRAINDICATIONS

Is patient younger than 13 years old?	YES/NO
Does patient anatomy suggest poor likelihood of success?	YES/NO
Does the patient have an intact gag reflex?	YES/NO
NASAL INTUBATION SPECIFIC: has patient stopped breathing?	YES/NO
NASAL INTUBATION SPECIFIC: does the patient have possible nasal or basilar skull fracture?	YES/NO
If YES to any of the above, STOP and go back to Airway Management Guideline or to Cricothyrotomy Checklist	

PREPARE TEAM

- ☐ Face shield/mask for all providers
- ☐ Determine backup airway plan
- ☐ Establish team roles – who will: intubate, suction, place backup airway (if needed), confirm placement, ventilate, secure tube?

PREPARE PATIENT

- ☐ Place patient in sniffing and/or ramped position if no spine injury suspected; jaw thrust and manual C-spine protection if spinal injury suspected
- ☐ Place oral and/or nasal airway
- ☐ Preoxygenate via nasal cannula at 15 LPM AND via BVM at 15 LPM
- ☐ Apply SpO₂ probe (Goal preintubation SpO₂ >90% if not in cardiac arrest)
- ☐ Confirm patency of IV and/or IO

PREPARE EQUIPMENT

- ☐ Direct laryngoscope and blades tested
- ☐ Video laryngoscope tested (if available)
- ☐ Suction unit tested/running, suction catheter under patient's right shoulder
- ☐ ET tube(s) – syringe, verify cuff and lubrication
- ☐ Bougie – out and ready
- ☐ ETT securing device – out and ready
- ☐ Extraglottic airways – out and ready

**GO TO POST INTUBATION CHECKLIST
IMMEDIATELY AFTER INTUBATION**

GENERAL

POST INTUBATION CHECKLIST

Effective 2/20/2020

- In general, intubation should be attempted only once; return to **Airway Management Guideline** or go to **Cricothyrotomy Checklist** if intubation is unsuccessful

PARAMEDIC

CONFIRMATION OF PLACEMENT

Does ETCO ₂ waveform show correct placement?	NO/YES
Does patient have bilateral breath sounds and absent epigastric sounds? <i>(If left sided breath sounds are initially absent/concern for right mainstem intubation, attempt to back ET tube out slightly before answering)</i>	NO/YES
If NO to either of the above, REMOVE ET TUBE and go back to Airway Management Guideline or to Cricothyrotomy Checklist	
If YES to both above, secure with tube tamer or other method and note depth of the ET tube:	<u> </u> cm

POST-INTUBATION CARE

- ☐ If available, use transport ventilator (Reference **Mechanical Ventilation Guideline**) **OR** use BVM to oxygenate/ventilate to target SpO₂ >94% and ETCO₂ 35-45 mmHg
- ☐ Elevate head of bed to 30° to optimize venous drainage unless CPR in progress and/or concerned for spinal injury
- ☐ Continuously monitor heart rate, ETCO₂ waveform, SpO₂, 3-lead ECG; obtain blood pressure every 5 minutes
- ☐ For patients not in cardiac arrest, consider **Midazolam** 5 mg IV/IO, may repeat every 10 minutes as needed for sedation; alternatively, consider **Fentanyl** 50-150 mcg IV/IO as needed for pain

PATIENT HANDOFF AND DOCUMENTATION

- ☐ Receiving Physician or Respiratory Therapist must confirm placement of ET tube and sign run report indicating correct placement at time of patient hand off
- ☐ Complete continuous ETCO₂ waveform data (including waveform at time of patient handoff) must be attached and/or uploaded to run report
- ☐ Reference **Exceptional Event Reporting Guideline** if any complications occur or if you and/or receiving facility personnel have any concerns

GENERAL

CRICOTHYROTOMY CHECKLIST

Effective 2/20/2020

- In general, cricothyrotomy should be considered in an unconscious adult patient with immediate life-threatening airway compromise and when other modalities of airway management have failed or are contraindicated
- This checklist should be used with **Airway Management Guideline** and **Adult Respiratory Distress Guideline**

PARAMEDIC

CRICOTHYROTOMY CONTRAINDICATIONS

Is patient younger than 13 years old?	YES/NO
Can patient be oxygenated and ventilated by any other method?	YES/NO
If YES to any of the above, STOP and go back to Airway Management Guideline or to Cricothyrotomy Checklist	

PREPARE TEAM

- ☐ Face shield/mask for all providers
- ☐ Establish team roles – who will: perform cricothyrotomy, suction, confirm placement, ventilate, secure tube?

PREPARE PATIENT

- ☐ Place patient supine
- ☐ Identify cricothyroid membrane and cleanse with chlorhexidine or betadine
- ☐ Apply SpO₂ probe
- ☐ Confirm patency of IV and/or IO

PREPARE EQUIPMENT

- ☐ Suction unit tested/running, suction catheter under patient's right shoulder
- ☐ ET tube(s) – syringe, verify cuff and lubrication
- ☐ Bougie – out and ready
- ☐ ETT securing device – out and ready

PERFORM PROCEDURE

- ☐ Make a vertical incision through the skin over the cricothyroid membrane 2 - 3 cm in length with sufficient depth to expose the cricothyroid membrane
- ☐ Horizontally puncture the membrane with the scalpel to facilitate access to the trachea
- ☐ Insert and maintain airway with a bougie
- ☐ Thread a 6.0 cuffed ET tube over the bougie and into the trachea

**GO TO POST INTUBATION CHECKLIST
IMMEDIATELY AFTER CRICOTHYROTOMY**

GENERAL	<p style="text-align: center;"><u>TRACHEOSTOMY TUBE EMERGENCIES</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ A tracheostomy tube is a permanent airway device placed as a result of a patient's underlying medical condition(s) ➤ This guideline is specifically for patients with tracheostomy tubes that are in <u>Respiratory Distress</u> or <u>Cardiac Arrest</u> ➤ Patients with tracheostomy tubes who are not in respiratory distress or cardiac arrest should be treated like any other patient, according to relevant treatment guidelines
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference other treatment guidelines as needed, based on patient presentation ➤ For respiratory distress, use along with the Adult Respiratory Distress Guideline or Pediatric Respiratory Distress Guideline ➤ For cardiac arrest, use along with Adult Cardiac Arrest Guideline or Pediatric Cardiac Arrest Guideline ➤ Caregivers or medical staff may re-insert a dislodged tracheostomy tube if they feel comfortable doing so ➤ Look for possible causes of distress which may be easily correctable, such as a detached or empty oxygen source. ➤ Suction any <u>visible</u> mucus plugs to help clear airway (do not perform deep suction) ➤ If breathing is adequate but patient has continued respiratory distress: <ul style="list-style-type: none"> • Administer high-flow oxygen via non-rebreather mask or blow-by, as tolerated, over the tracheostomy tube/site ➤ If breathing is inadequate/absent: <ul style="list-style-type: none"> • Assist ventilations using bag valve mask through tracheostomy tube/site ➤ Consider attempting all above treatments through nose or mouth if unable to successfully do so via tracheostomy tube or stoma ➤ If patient is bleeding from tracheostomy site, attempt bleeding control with direct pressure and suction without further compromising airway
PARAMEDIC	<ul style="list-style-type: none"> ➤ If patient is in respiratory distress after above and <u>tracheostomy tube is in place</u>: <ul style="list-style-type: none"> • Remove obturator and/or inner cannula • Suction approximately 5 cm deep in tube; may use 2-3 mL NS flush to help break up secretions ➤ If <u>tracheostomy tube is dislodged</u>, AND patient is in distress or cardiac arrest: <ul style="list-style-type: none"> • Insert bougie, then slide ET tube over bougie into stoma. Utilize <u>extreme caution</u> in recently placed tracheostomy tracts, as there is heightened likelihood of creating a false passage through the soft tissues of the neck when instrumenting immature tracheostomies • Reference Post Intubation Checklist and follow steps as closely as possible and as applicable

GENERAL	<p style="text-align: center;"><u>FOREIGN BODY AIRWAY OBSTRUCTION</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ If patient is conscious with good air exchange, encourage coughing ➤ In conscious patient with poor air exchange, perform sub-diaphragmatic abdominal thrusts (Heimlich Maneuver or anterior abdominal thrusts for pregnant or obese patients) ➤ If unconscious, reposition airway and try to ventilate with BVM ➤ If unable to ventilate, begin CPR. Visualize airway prior to each ventilation cycle/at pulse checks; remove object if it appears in mouth
PARAMEDIC	<ul style="list-style-type: none"> ➤ Consider direct laryngoscopy to grasp object with Magill forceps (all ages) ➤ Reference Adult Intubation Checklist and consider intubation to protect airway and/or force object in either mainstem bronchus for an adult patient ➤ Reference Cricothyrotomy Guideline in unconscious patient after <u>ALL OTHER</u> attempts have failed ➤ If tracheostomy tube has become dislodged, reference Tracheostomy Tube Emergencies Guideline

GENERAL	<div>CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP) CHECKLIST</div> <div>Effective 2/20/2020</div> <div><div><div>➤ CPAP may benefit awake and breathing patients experiencing severe dyspnea secondary to asthma, chronic obstructive pulmonary disease, pulmonary edema, CHF, of other forms of severe pulmonary compromise</div><div>➤ This checklist is to be used along with the Adult Respiratory Distress Guideline or the Pediatric Respiratory Distress Guideline</div></div></div>															
	<div><div>CPAP CONTRAINDICATIONS</div><table><tr><td>Is patient in respiratory or cardiac arrest?</td><td>YES/NO</td></tr><tr><td>Does patient have severe facial or head trauma?</td><td>YES/NO</td></tr><tr><td>Is patient too small OR too big for any of the CPAP masks?</td><td>YES/NO</td></tr><tr><td>Is patient unable to maintain his/her own airway?</td><td>YES/NO</td></tr><tr><td>Does patient have signs of severe gastric distention?</td><td>YES/NO</td></tr><tr><td>Does patient have severe hypotension? (SBP ≤90 mmHg)</td><td>YES/NO</td></tr><tr><td>Does patient have pneumothorax or penetrating chest trauma?</td><td>YES/NO</td></tr><tr><td colspan="2">If YES to any of the above, STOP and go back to Adult Respiratory Distress Guideline or the Pediatric Respiratory Distress Guideline</td></tr></table><div><div>PREPARE PATIENT</div><div><div><input type="checkbox"/> Place patient in upright and seated position</div><div><input type="checkbox"/> Explain CPAP to patient and reassure as much as possible</div></div><div>PREPARE EQUIPMENT</div><div><div><input type="checkbox"/> Correctly sized mask connected to tubing, check for leaks</div><div><input type="checkbox"/> Pressure setting of 5 cm H₂O; titrate upward as needed to a max of 15 cm H₂O to an oxygen saturation of greater than 90%</div><div><input type="checkbox"/> Continuously monitor heart rate, ETCO₂ waveform, SpO₂, 3-lead ECG; obtain blood pressure every 5 minutes</div><div><input type="checkbox"/> Remove mask immediately if patient vomits or stops breathing</div><div><input type="checkbox"/> Monitor oxygen tank levels closely; change as needed</div></div></div></div>	Is patient in respiratory or cardiac arrest?	YES/NO	Does patient have severe facial or head trauma?	YES/NO	Is patient too small OR too big for any of the CPAP masks?	YES/NO	Is patient unable to maintain his/her own airway?	YES/NO	Does patient have signs of severe gastric distention?	YES/NO	Does patient have severe hypotension? (SBP ≤90 mmHg)	YES/NO	Does patient have pneumothorax or penetrating chest trauma?	YES/NO	If YES to any of the above, STOP and go back to Adult Respiratory Distress Guideline or the Pediatric Respiratory Distress Guideline
Is patient in respiratory or cardiac arrest?	YES/NO															
Does patient have severe facial or head trauma?	YES/NO															
Is patient too small OR too big for any of the CPAP masks?	YES/NO															
Is patient unable to maintain his/her own airway?	YES/NO															
Does patient have signs of severe gastric distention?	YES/NO															
Does patient have severe hypotension? (SBP ≤90 mmHg)	YES/NO															
Does patient have pneumothorax or penetrating chest trauma?	YES/NO															
If YES to any of the above, STOP and go back to Adult Respiratory Distress Guideline or the Pediatric Respiratory Distress Guideline																
PARAMEDIC	<div><div>➤ CPAP mask can make patient anxious or claustrophobic; if this persists despite coaching and reassurance, consider “low-dose” Midazolam</div><div><div><div>• Adult Dose: 5 mg IM/IN; 2.5 mg IV/IO; may repeat every 10 minutes as needed</div><div>• Pediatric Dose: 0.1 mg/kg IM/IN, up to maximum dose of 10 mg; 0.05 mg/kg IV/IO, up to maximum dose of 5 mg; may repeat every 10 minutes as needed</div></div></div></div>															

MECHANICAL VENTILATION

[Revised 2/15/2021]

GENERAL

- If available, mechanical ventilation should be considered for all APNEIC patients
- Mechanical ventilation ensures the safest delivery of ventilations in an apneic patient by tightly controlling respiratory pressures, volume of air delivered, and respiratory rate
- Mechanical ventilation may be used with any airway device or with mask from BVM
- This guideline covers the use of mechanical ventilators in cardiac arrest and respiratory arrest patients by first responders and above
- This guideline does not cover intensive care unit (ICU)-level ventilator support

ALL PROVIDERS

- Reference **Airway Management Guideline**
- Apply continuous ETCO₂ monitoring
- If apneic patient is easy to ventilate with a BVM:
 - Connect mechanical ventilator
 - Select **respiratory rate**
 - Adult: 10 breaths per minute
 - Pediatrics: 20 breaths per minute
 - Infants: 30 breaths per minute
 - Select ventilator **tidal volume**
 - **Adult:** 400 - 500 mL (6 - 8 mL/kg ideal body weight)
 - ALTERNATE CALCULATION for adult: Tidal volume in mL = size of extraglottic airway x 100
 - **Pediatric:** 6 - 8 mL/kg
 - **If patient has pulse, or achieves ROSC after receiving CPR**
 - Set **pressure relief/maximum pressure** to 40 cm H₂O
 - Set **PEEP** to 5 cm H₂O
 - Titrate **respiratory rate** to goal ETCO₂ = 35 – 45 mm Hg
 - Titrate **FiO₂** to goal SpO₂ = 94%
 - **During CPR**
 - Set **pressure relief/maximum pressure** to “MAX”
 - Set **PEEP** to 0 cm H₂O
 - Set **FiO₂** to 100%
- If ventilator alarms or if ventilations are not being successfully delivered, disconnect ventilator, ventilate with BVM, and troubleshoot with DOPE mnemonic:

D.O.P.E. VENTILATOR TROUBLESHOOTING GUIDE

D	Dislodged Airway	<input type="checkbox"/> Check ET tube/extraglottic device placement <input type="checkbox"/> Check continuous ETCO ₂ waveform
O	Obstruction	<input type="checkbox"/> Deep suction ET tube/extraglottic device <input type="checkbox"/> Check ventilator tubing and connections for kinks or leaks
P	Pneumothorax	<input type="checkbox"/> Reevaluate breath sounds for possible pneumothorax
E	Equipment Failure	<input type="checkbox"/> Check ventilator function and settings <input type="checkbox"/> Check oxygen supply

If patient still cannot be ventilated with ventilator, **continue ventilating with BVM**

5. MEDICAL GUIDELINES

GENERAL	<p style="text-align: center;"><u>PAIN MANAGEMENT</u> <u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ Consider pain medication for any patient that appears to be in pain of any kind ➤ Ibuprofen, ketorolac, and acetaminophen are approved as <u>single dose</u> medications for EMS use ➤ A patient should <u>not</u> receive both ibuprofen and ketorolac – pick only one ➤ Ibuprofen and ketorolac may be used with acetaminophen and/or fentanyl ➤ Ibuprofen and ketorolac may <u>not</u> be given to patients younger than 6 months of age or older than 65 ➤ If pain persists after initial medication administration, consider additional dose(s) or additional medications as outlined in this guideline ➤ If hypotension (SBP <90), respiratory depression, and/or significant mental status change occurs after fentanyl is administered, perform appropriate supportive care and do not repeat dose ➤ Frequent monitoring and documentation of vital signs before and after medication administration is required
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Position patient comfortably ➤ Continuous waveform end-tidal CO2 monitoring is highly recommended if benzodiazepines or repeat doses of opiates have been administered
BASIC	<ul style="list-style-type: none"> ➤ Consider Ibuprofen if able to tolerate PO <ul style="list-style-type: none"> • Adult Dose: 400 – 800 mg PO, one time only • Pediatric Dose for children 6 months of age or older: 10 mg/kg PO to maximum dose of 800 mg, one time only • Do <u>not</u> administer to patients with a known or suspected history of: <ul style="list-style-type: none"> ○ Pregnancy ○ Kidney disease ○ Gastrointestinal bleeding ○ Peptic ulcers ○ Recent endurance athletic endeavor (marathon, triathlon, etc.) ○ Ibuprofen administration within the last 6 hours ➤ Reference Acupressure Guideline if trained in this modality <p style="text-align: center;">GO TO NEXT PAGE</p>

CONTINUED FROM PREVIOUS PAGE

INTERMEDIATE

- **Fentanyl:**
 - **Adult Dose:**
 - 50 – 150 mcg IV/IO/IM **or** 100 mcg (50 mcg per nare) IN every 5 min as needed
 - Consider lower starting dose in geriatric patients
 - **Pediatric Dose:**
 - 0.5 – 1.5 mcg/kg IV/IO/IM **or** 1.5 mcg/kg IN (max 50 mcg per nare) every 5 minutes as needed
 - Consider giving first dose IN, especially for pediatrics and in patients with suspected difficult IV access
 - Consider giving all doses IN (or IM) if IV access is not otherwise required
- EMT-Intermediates require approval from EMS Consortium or on-scene Paramedic to administer fentanyl
- If unable to contact EMS Consortium and no Paramedic is on scene, the EMT-Intermediate may give fentanyl following the dosing above. This must be clearly documented as an exception in the patient chart

PARAMEDIC

- Consider **Acetaminophen** if able to take PO
 - **Adult Dose:** 650 mg PO, one time only
 - **Pediatric Dose:** 15 mg/kg PO, one time only
 - Do not administer to patients with known or suspected history of:
 - Liver disease
 - Acetaminophen administration within the last 4 hours
- Consider **Ketorolac** especially for patients with suspected kidney stone, or acute musculoskeletal pain
 - **Adult Dose for patients less than 65 years old:** 15 mg IV/IM, one time only
 - **Pediatric Dose for children older than 2 years:** 0.5 mg/kg IV or 1 mg/kg IM (max 15 mg IV or IM), one time only
 - Do not administer Ketorolac to patients with known or suspected history of:
 - Trauma with bleeding
 - Bleeding disorders
 - Intracranial bleeding
 - Pregnancy or breastfeeding
 - Gastrointestinal bleeding
 - Peptic ulcer disease
 - Recent surgery
 - Administration of another NSAID (i.e. ibuprofen) within 6 hours

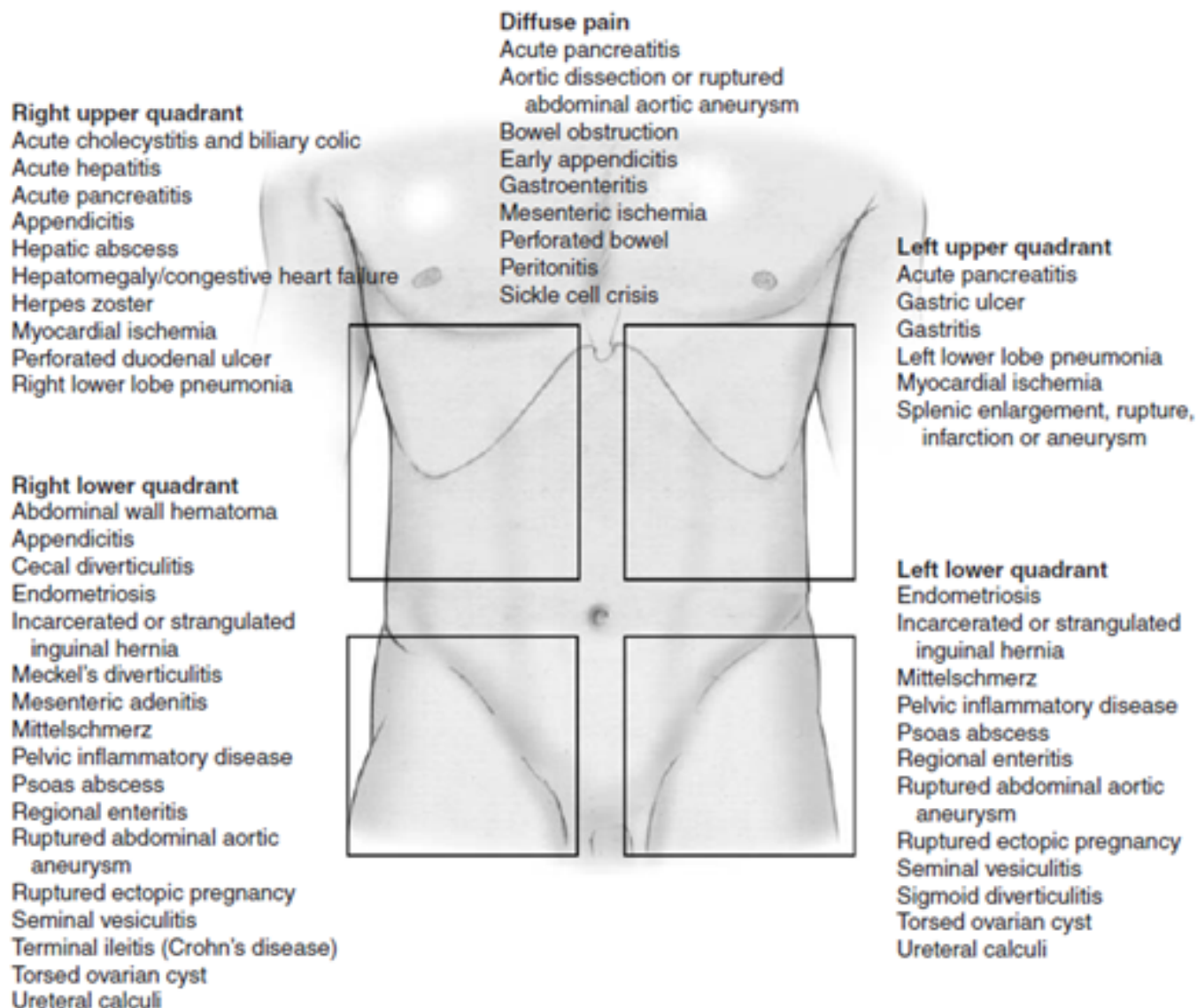
GO TO NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

PARAMEDIC

- Consider a single administration of “low-dose” **Midazolam** as adjunct to medication for pain management
 - **Midazolam** administration may be appropriate in the following circumstances:
 - Patient requires a potentially life- or limb-saving intervention that will cause patient significant pain (i.e. repositioning of a pulseless fractured/dislocated limb in an attempt to restore perfusion, synchronized cardioversion, cardiac pacing)
 - Provider suspects significant element of muscle spasm to patient’s discomfort
 - If **Midazolam** is co-administered with **Fentanyl**, there is a heightened risk of respiratory depression. Providers should anticipate this possibility and be prepared to closely monitor respiratory status, and provide supplemental **Oxygen** or respiratory support as needed
 - **Adult Dose:** 5 mg IM/IN; 2.5 mg IV/IO (only to be administered to patients less than 65 years old)
 - **Pediatric Dose:** 0.1 mg/kg IM/IN, up to maximum dose of 10 mg; 0.05 mg/kg IV/IO, up to maximum dose of 5 mg

GENERAL	<p style="text-align: center;"><u>ABDOMINAL / FLANK PAIN</u> <u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Causes can include appendicitis, food poisoning, abdominal aortic aneurysm, gastritis, gallbladder problems, kidney stone, intestinal obstruction, ectopic pregnancy, ulcers, ovarian cyst, and more
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Place patient in position of comfort for transport ➤ Gather patient history carefully. Consider ectopic pregnancy for female patients of childbearing age ➤ Watch for shock, treat and transport expeditiously ➤ Reference Pain Management Guideline ➤ Reference Nausea Guideline ➤ Cardiac monitor to capture rhythm and obtain 12-lead ECG if available/applicable ➤ ECG is required (if available) for patients with upper abdominal pain, nausea, or vomiting if patient is greater than 40 years of age
BASIC	<ul style="list-style-type: none"> ➤ Consider Sepsis Guideline
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated or a history of vomiting or diarrhea
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG



GENERAL	<p style="text-align: center;"><u>ADULT RESPIRATORY DISTRESS</u></p> <p style="text-align: center;"><u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ Causes of respiratory distress in an adult patient may include asthma, anaphylaxis, COPD, pneumonia, hyperventilation, pulmonary edema, pneumothorax, or epiglottitis ➤ For pediatric doses, reference Pediatric Respiratory Distress Guideline
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline ➤ Reference Foreign Body Airway Obstruction Guideline as needed ➤ Reference Allergic Reaction and Anaphylaxis Guideline as needed ➤ Reference Altered Mental Status Guideline as needed ➤ Reference Congestive Heart Failure Exacerbation Guideline as needed ➤ Reference Continuous Positive Airway Pressure (CPAP) Checklist ➤ Allow patient to assume a position of comfort ➤ Apply Oxygen to achieve SpO₂ of >94% ➤ Continuous end-tidal carbon dioxide monitoring if available ➤ If stridor is present, administer nebulized saline and/or humidified Oxygen ➤ If wheezing is present: <ul style="list-style-type: none"> • Albuterol 5 mg nebulized, repeat if wheezing persists <ul style="list-style-type: none"> ○ If patient is unable to hold nebulizer, attach to NRB mask or BVM to assist ➤ Consider 12-lead ECG if available/applicable
BASIC	<ul style="list-style-type: none"> ➤ Wheezing Present: <ul style="list-style-type: none"> • Add Ipratropium bromide 0.5 mg nebulized to first or second dose of Albuterol ➤ If work of breathing is considerable and anaphylaxis or severe asthma exacerbation is suspected: <ul style="list-style-type: none"> • Epinephrine 1 mg/mL (OLD NAME 1:1,000) 0.3 mg IM, using a pre-measured dose or a 0.3 mg dose-limiting syringe <ul style="list-style-type: none"> ○ May repeat epinephrine dosing as needed every 3-5 minutes to 3 doses. Contact MCEP/EMS CONSORTIUM if additional doses are needed <p style="text-align: center;"><i>GO TO NEXT PAGE</i></p>

CONTINUED FROM PREVIOUS PAGE

INTERMEDIATE

- Consider **Diphenhydramine** 50 mg IV/IM if allergic reaction or anaphylaxis suspected
- Consider **Dexamethasone** or **Methylprednisolone** (choose one) if severe systemic symptoms and/or if Epinephrine has been administered
 - **Dexamethasone**
 - **Adult Dose:** 10 mg IV/IM/IO/PO; if IV/IO, slow push over 2 minutes
 - **Methylprednisolone**
 - **Adult Dose:** 125 mg IV/IO
- Administer a 10 mL/kg bolus of **Normal Saline** or **Lactated Ringers** to patients with hemodynamic instability; repeat as clinically indicated

PARAMEDIC

- Interpret 12-lead ECG
- For patients with persistent wheezing or poor air movement, or who are in shock:
 - Reference **Infusion Pump Guideline**
 - **Magnesium Sulfate** 2 grams IV/IO infusion, administer over 10 minutes
- Consider **Epinephrine Drip**, **Epinephrine Mini-Bolus**, and/or **Nebulized Epinephrine** for worsening distress and/or impending respiratory FAILURE
 - **Epinephrine Drip**
 - **Adult Dose:** 2 – 10 mcg/min IV/IO; titrate to MAP 65 mm Hg for adults
 - **Epinephrine Mini-Bolus**
 - **Adult Dose:** 2 – 10 mcg IV/IO, may repeat every minute as needed to sustain MAP of 65 mm Hg for adults
 - **Nebulized Epinephrine**
 - **Adult Dose:** add 1 mg of **Epinephrine 1 mg/mL (OLD NAME 1:1000)** to 3 mL NS and administer via nebulizer
 - Repeat after 20 minutes if the patient did not significantly improve after the first administration

GENERAL	<p style="text-align: center;"><u>ALCOHOL WITHDRAWAL</u> <u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Patients who are physiologically dependent upon alcohol can experience severe withdrawal when they have not consumed alcohol, even for short periods of time ➤ The time from last consumption to onset of withdrawal symptoms will vary by patient and pattern of consumption ➤ Symptoms of alcohol withdrawal include: tremors, agitation, restlessness, tachycardia, hypertension, hallucinations, and altered mental status/delirium ➤ Patients in alcohol withdrawal are at risk for cardiac arrhythmias, electrolyte abnormalities, seizures and dehydration ➤ Alcohol withdrawal can be fatal
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Nausea Guideline ➤ Reference Altered Mental Status Guideline ➤ Apply cardiac monitor and obtain 12-lead ECG if available
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer 10 mL/kg IV/IO bolus of Normal Saline or Lactated Ringers; repeat as clinically indicated
PARAMEDIC	<ul style="list-style-type: none"> ➤ Consider Midazolam <ul style="list-style-type: none"> • Adult Dose: 10 mg IM/IN; 5 mg IV/IO; may repeat every 10 minutes as needed ➤ As with any benzodiazepine administration, prepare to closely monitor patient's respiratory status and actively manage the patient's airway ➤ Interpret 12-lead ECG ➤ Monitor ETCO₂

GENERAL	<p style="text-align: center;"><u>ALLERGIC REACTION AND ANAPHYLAXIS</u></p> <p style="text-align: center;">Revised 2/15/2021</p> <ul style="list-style-type: none"> ➤ Allergic reactions can be caused by many different antigens, and may affect different systems or parts of the body ➤ Anaphylaxis is an allergic reaction that affects two or more body systems at once ➤ Anaphylactic shock is shock that develops in setting of anaphylaxis, and is a true life-threatening emergency that requires rapid intervention with IM Epinephrine and potentially airway management
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline ➤ Reference Adult Respiratory Distress or Pediatric Respiratory Distress Guideline ➤ Reference Continuous Positive Airway Pressure (CPAP) Checklist ➤ If patient has severe systemic symptoms, administer Epinephrine 1 mg/mL (OLD NAME 1:1,000) IM <ul style="list-style-type: none"> • Auto-Injector is the only Epinephrine option for MFRs • EMTs and above may use an Auto-Injector and/or other options listed below ➤ Apply cardiac monitor ➤ Continuous end-tidal CO2 monitoring (if available)
BASIC	<ul style="list-style-type: none"> ➤ If patient has severe systemic symptoms: <ul style="list-style-type: none"> • Administer Epinephrine 1 mg/mL (OLD NAME 1:1,000) <ul style="list-style-type: none"> ○ Adult Dose: 0.3 mg IM, using a pre-measured dose or a 0.3 mL dose-limiting syringe ○ Pediatric Dose: 0.15 mg IM, using a pre-measured dose or a 0.3 mL dose-limiting syringe ○ Repeat Epinephrine dosing every 3-5 minutes as needed up to 3 doses <p style="text-align: center;"><i>GO TO NEXT PAGE</i></p>

CONTINUED FROM PREVIOUS PAGE

INTERMEDIATE

- Consider **Diphenhydramine** if patient has systemic symptoms
 - **Adult Dose:** 25 – 50 mg IV/IM/IO
 - **Pediatric Dose:** 1 mg/kg IV/IM/IO up to maximum dose of 50 mg
- Consider **Dexamethasone** or **Methylprednisolone** (choose one) if severe systemic symptoms and/or if Epinephrine has been administered
 - **Dexamethasone**
 - **Adult Dose:** 10 mg IV/IM/IO/PO; if IV/IO, slow push over 2 minutes
 - **Pediatric Dose:** 0.6 mg/kg IV/IM/IO/PO up to maximum dose of 10mg; if IV/IO, slow push over 2 minutes
 - **Methylprednisolone**
 - **Adult Dose:** 125 mg IV/IM/IO
 - **Pediatric Dose:** 1 mg/kg IV/IM/IO
- Administer a 10 mL/kg bolus of **Normal Saline** or **Lactated Ringers** to patients with hemodynamic instability; repeat as clinically indicated

PARAMEDIC

- For patients in anaphylactic shock refractory to IM Epinephrine dosing and fluid bolus, consider **Epinephrine Drip** or **Epinephrine Mini-Bolus**:
 - Reference **Infusion Pump Guideline**
 - **Epinephrine Drip**
 - **Adult Dose:** 2 – 10 mcg/min IV/IO; titrate to MAP 65 mm Hg for adults
 - **Pediatric Dose:** 0.1 – 1 mcg/kg/minute IV/IO; titrate MAP to age
 - **Epinephrine Mini-Bolus**
 - **Adult Dose:** 2 – 10 mcg IV/IO, may repeat every minute as needed to sustain MAP of 65 mm Hg for adults
 - **Not indicated for pediatrics**
- Interpret 12-lead ECG if obtained

GENERAL	<p style="text-align: center;"><u>ALTERED MENTAL STATUS</u> <u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ A depressed and potentially dangerous level of consciousness resulting from any reason, which may include hypoxia, head injury, stroke, alcohol and other drug use, delirium secondary to other illness, metabolic disturbances, etc.
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline as needed ➤ Reference Respiratory Distress Guideline as needed ➤ Reference Penetrating, Blunt, and Multi-System Trauma Guideline as needed ➤ Reference Ingestion/Poisoning/Overdose Guideline as needed ➤ Patient may become combative; reference Chemical and Physical Restraint Guideline as needed ➤ Obtain 12-lead ECG (if available)
BASIC	<ul style="list-style-type: none"> ➤ If the patient's condition appears to be due to hypoxia or head trauma, attempt to maintain SpO₂ >94% by oxygen delivery devices or by ventilating the patient with a BVM if necessary
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG
NOTES	<ul style="list-style-type: none"> ➤ If the patient is suspected to have overdosed on opioids, it is appropriate to try Naloxone while simultaneously trying to ruling out hypoglycemia

CONTAGIOUS RESPIRATORY ILLNESS

Revised 7/18/2020

GENERAL

- Contagious respiratory illnesses are transmitted from person to person via respiratory droplets produced when an infected person coughs or sneezes
- Most are caused by viruses, and can range from the “common cold” to more serious infections like influenza, SARS, MERS, and COVID-19
- Most cause similar symptoms, including fever, cough, and shortness of breath
 - Other concerning symptoms include fatigue, muscle/body aches, headache, loss of taste or smell, sore throat, congestion or runny nose, nausea/vomiting, and/or diarrhea
- It is impossible to distinguish between these different illnesses in the field, so the following personal protective equipment (PPE) should be donned by all providers upon encountering patients with any of the above symptoms:
 - N95 respirator mask
 - Gloves
 - Eye protection
 - Impervious gown
- The driver should keep N95 mask on but remove gloves, gown, and eye protection, and should wash hands or use alcohol-based hand sanitizer before driving
 - Driver should re-don PPE upon arrival at hospital if helping to take patient inside

ALL PROVIDERS

- Reference **Primary Management Guideline**
- If possible, initial assessment should begin at least 6 feet from the patient
 - Minimize patient contact as much as possible until facemask is on the patient
- Reference additional relevant treatment guidelines as needed
- Minimize – and avoid if possible – aerosol-generating procedures, including BVM ventilation, oropharyngeal suctioning, intubation, nebulizer treatments, and CPAP
 - If patient needs advanced airway, use extraglottic airway instead of intubation
 - If patient requires performance of any of these aerosol-generating procedures in the transport unit, the rear doors should be opened and the HVAC system should be activated while procedures are performed
 - If nebulized treatments must be given, please discontinue before taking patients inside the hospital
- Notify receiving hospital as soon as possible that patient may have a contagious respiratory illness

- Post-call clean up:
 - Clean and disinfect medical equipment and other frequently touched objects and surfaces according to departmental/agency policy
 - After patient contact, wash your hands after patient contact with soap and water or with alcohol-based hand sanitizer
- No guideline can be comprehensive enough or updated quickly enough for each specific illness. Please refer to the US Center for Disease Control and Prevention (www.cdc.gov) and the New Mexico Department of Health (www.nmhealth.org) for the most current information regarding specific illnesses

INGESTION / POISONING / OVERDOSE

Revised 2/15/2021

- Ensure scene and crew safety
- Consider respiratory protection, ventilation, or decontamination as needed
- Utilize a gas and/or CO monitor as needed
- Remove patient from dangerous area if needed and if safe/equipped to do so
- Reference **Primary Management Guideline**
- Reference **Airway Management Guideline** as needed
- Reference **Respiratory Distress Guideline** as needed
- Reference **Altered Mental Status Guideline** as needed
- Reference **Seizure/Convulsions Guideline** as needed
- Patient may become combative; reference **Chemical and Physical Restraint Guideline** as needed
- Obtain 12-lead ECG (if available)
- Attempt to determine substance, time of exposure, quantity and concentration/dose of substance, and if patient has vomited
- Attempt to determine if poisoning was accidental or intentional
 - If intentional, evaluate for suicidal ideation
- If safe to do so, collect containers, bottles, or other material containing substance(s) for transport to hospital with the patient
- If patient has insufficient respiratory effort and opioid ingestion is suspected, or if patient is hypotensive and clonidine ingestion is suspected, consider **Naloxone**:
 - **Adult dose:** 2 mg IN; may repeat as necessary
 - **Pediatric Dose:** 0.01 mg/kg IN; if ineffective, then subsequent dosing at 0.1 mg/kg IN up to 2 mg per dose; may repeat as necessary
 - Assist ventilations with BVM while preparing **Naloxone** and after administration while evaluating its effectiveness
 - Persons chronically dependent upon opioids may go into acute withdrawal when given **Naloxone**; be prepared for nausea/vomiting and agitation
 - Persons with clonidine ingestion may need multiple doses of **Naloxone**
- If carbon monoxide ingestion is suspected:
 - Place patient on 15 LPM **Oxygen** via non-rebreather mask

GO TO NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

BASIC	<ul style="list-style-type: none"> ➤ If patient has insufficient respiratory effort and <u>opioid ingestion</u> is suspected, or if patient is hypotensive and <u>clonidine ingestion</u> is suspected, consider Naloxone: <ul style="list-style-type: none"> • Adult Dose: 0.2 – 2 mg IM/IN; may repeat as necessary • Pediatric Dose: 0.01 mg/kg IM/IN; if ineffective, then subsequent dosing at 0.1 mg/kg up to 2 mg per dose; may repeat as necessary • Use lowest dosing required for return of normal respiratory effort • Assist ventilations with BVM while preparing Naloxone and after administration while evaluating its effectiveness
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated ➤ If patient has insufficient respiratory effort and <u>opioid ingestion</u> is suspected, or if patient is hypotensive and <u>clonidine ingestion</u> is suspected, consider Naloxone: <ul style="list-style-type: none"> • Adult Dose: 0.2 – 2 mg IM/IN/IV; may repeat as necessary • Pediatric Dose: 0.01 mg/kg IM/IN/IV; if ineffective, then subsequent dosing at 0.1 mg/kg up to 2 mg per dose; may repeat as necessary • Use lowest dosing required for return of normal respiratory effort • Assist ventilations with BVM while preparing Naloxone and after administration while evaluating its effectiveness
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG ➤ If suspected <u>Organophosphate Exposure</u>: <ul style="list-style-type: none"> • Atropine <ul style="list-style-type: none"> ○ Adult Dose: 2 mg IV/IO every 3 - 5 minutes until symptoms improve ○ Pediatric Dose: 0.05 mg/kg IV/IO every 3 - 5 minutes until symptoms improve ➤ If suspected <u>Tricyclic Antidepressant (TCA)</u> overdose (heralded by wide complex tachycardia or a terminal R wave in lead aVR of 12-lead ECG): <ul style="list-style-type: none"> • Sodium Bicarbonate <ul style="list-style-type: none"> ○ Adult Dose: 50 mEq IV/IO every 3 - 5 minutes until QRS complex narrows ○ Pediatric Dose: 1 mEq/kg IV/O every 3 - 5 minutes until QRS complex narrows <p style="text-align: center;">GO TO NEXT PAGE</p>

CONTINUED FROM PREVIOUS PAGE

PARAMEDIC	<p>➤ Symptomatic <u>Beta Blocker</u> overdose:</p> <ul style="list-style-type: none"> • If hypoglycemic, reference Diabetic Emergencies Guideline • If wide complex tachycardia develops: <ul style="list-style-type: none"> ○ Sodium Bicarbonate <ul style="list-style-type: none"> ▪ Adult Dose: 50 mEq IV/IO every 3 - 5 minutes until QRS complex narrows ▪ Pediatric Dose: 1 mEq/kg IV/IO every 3 - 5 minutes until QRS complex narrows <p>➤ Symptomatic <u>Calcium Channel Blocker</u> overdose with bradycardia and/or hypotension:</p> <ul style="list-style-type: none"> • Calcium Chloride or Calcium Gluconate <ul style="list-style-type: none"> ○ Calcium Chloride <ul style="list-style-type: none"> ▪ Adult Dose: 1 gram IV/IO over 10 minutes ▪ Pediatric Dose: 20 mg/kg IV/IO over 10 minutes, maximum dose 1 gram ○ Calcium Gluconate <ul style="list-style-type: none"> ▪ Adult Dose: 3 grams IV/IO over 10 minutes ▪ Pediatric Dose: 60 mg/kg IV/IO over 10 minutes, maximum dose 3 grams • If bradycardic, consider Atropine <ul style="list-style-type: none"> ○ Adult Dose: 1 mg IV/IO; every 3 - 5 minutes as needed, to total dose of 3 mg ○ Pediatric Dose: 0.02 mg/kg IV/IO [minimum of 0.1 mg and maximum of 0.5 mg per dose], may repeat once
NOTES	<p>➤ NEW MEXICO POISON CENTER: 1-800-222-1222 or 1-505-272-2222</p> <p>➤ Consider calling Poison Center for assistance with unknown or unfamiliar overdoses</p> <p>➤ While the Poison Center does not provide EMS Medical Direction, they can help with treatment and transport recommendations as well as hospital notification and follow up</p> <p>➤ Contact MCEP/EMS Consortium if you have any concerns regarding Poison Center recommendations</p>

GENERAL	<p style="text-align: center;"><u>DIABETIC EMERGENCIES</u> <u>Effective 2/20/2020</u></p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline as needed ➤ Reference Sepsis Guideline as needed ➤ DO NOT GIVE ANYTHING BY MOUTH UNLESS PATIENT IS ABLE TO SWALLOW AND PROTECT OWN AIRWAY ➤ <u>Definition of hypoglycemia:</u> <ul style="list-style-type: none"> • Adults and Pediatrics: blood glucose less than 60 mg/dL • Neonates: blood glucose less than 40 mg/dL ➤ If hypoglycemic but able to swallow, administer Oral Glucose <ul style="list-style-type: none"> • Adult/Pediatric/Neonate Dose: up to 15 grams oral glucose PO <ul style="list-style-type: none"> ○ Have parent attempt to feed neonate if arousable ○ Oral Glucose may be given regardless of field glucose reading if your suspicion of hypoglycemia is high, or if patient is routinely <u>hyperglycemic</u> ➤ If hypoglycemic with insulin pump: <ul style="list-style-type: none"> • If possible, have the patient or family turn the pump off and treat per Guideline • If EMS provider is comfortable, EMS provider may turn off the pump • If the pump cannot be turned off at the switch, gently remove the catheter from the skin and treat per Guideline • Make sure the pump stays with the patient and is not misplaced
INTERMEDIATE	<ul style="list-style-type: none"> ➤ If <u>hypoglycemic and unable to tolerate PO</u>, administer Dextrose: <ul style="list-style-type: none"> • Adult Dose: up to 250 mL Dextrose 10% IV/IO; titrate to improvement in mental status • Pediatric and Neonatal Dose: 2.5 mL/kg of Dextrose 10% IV/IO ➤ If <u>hypoglycemic, unable to tolerate PO, and unable to obtain IV access</u>, may consider Glucagon before considering IO <ul style="list-style-type: none"> • Adult Dose: 1 mg IM • Pediatric dose for children 6 years old and younger: 0.5 mg IM • Glucagon takes much longer to work than Dextrose and may not work at all in patients with depleted glycogen stores ➤ Once hypoglycemic patient is able to swallow and protect own airway, have patient eat ➤ If <u>hyperglycemic</u>, administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers <ul style="list-style-type: none"> • Repeat bolus if still hyperglycemic and as clinically indicated ➤ Recheck blood sugar frequently during transport

GENERAL	<p style="text-align: center;"><u>EXTRAPYRAMIDAL REACTIONS</u></p> <p style="text-align: center;"><u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ A medication reaction, typically to a phenothiazine (Phenergan, Thorazine) or a butyrophenone (Haldol, Droperidol) marked by acute dystonia (muscle spasms) or akathisia (motor restlessness)
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Altered Mental Status Guideline as needed ➤ Cardiac monitor to capture rhythm and obtain 12-lead ECG if available/applicable
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer Diphenhydramine <ul style="list-style-type: none"> • Adult Dose: 25 – 50 mg IV/IO/IM • Pediatric Dose: 1-2 mg/kg IV/IO/IM
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ➤ Consider Midazolam if patient has known allergy to diphenhydramine <ul style="list-style-type: none"> • Adult Dose: 10 mg IM/IN; 5 mg IV/IO; may repeat every 10 minutes as needed • Pediatric Dose: 0.2 mg/kg IM/IN, up to maximum dose of 10 mg; 0.1 mg/kg IV/IO, up to maximum dose of 5 mg; may repeat every 10 minutes as needed

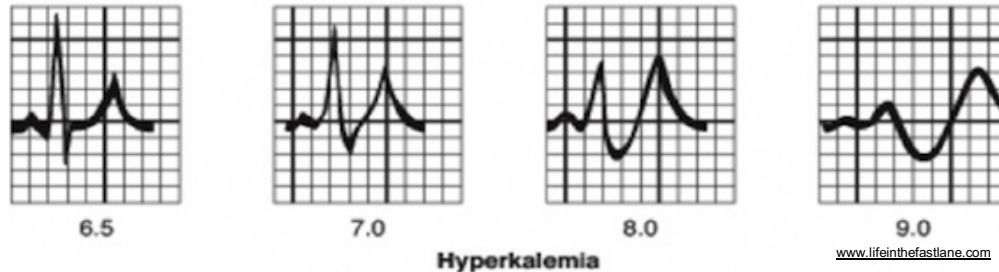
GENERAL	<p style="text-align: center;"><u>FAINTING / SYNCOPÉ</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ A detailed past medical history and history of present illness is important as it may lead the EMS provider or ED staff to the source of the problem ➤ Syncope is often the result of another medical emergency and should be considered a cardiac event ➤ Cardiac event cannot be completely ruled even with negative on-scene evaluation
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Altered Mental Status Guideline ➤ Obtain base line vital signs, including orthostatic vital signs if possible ➤ Cardiac monitor to capture rhythm; obtain 12-lead ECG if available
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG
NOTES	<ul style="list-style-type: none"> ➤ Certain rare life-threatening conditions can first appear as syncope in a young person ➤ Obtain a 12-lead ECG in all syncope patients, even young patients that may have completely recovered, and especially if patient wishes to refuse transport ➤ If patient refuses 12-lead ECG and/or transport, inform them of the risks of these rare conditions, and encourage them to follow up in an Emergency Department or with their Primary Care Provider

GENERAL	<p style="text-align: center;"><u>FEVER</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Fever is defined as body temperature \geq 100.4 degrees Fahrenheit (30 degrees Celsius) ➤ Fever may be the result of simple illness or a complicated underlying cause. A detailed past medical history and history of present illness is important as it may lead the EMS provider or ED staff to the source of the problem
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Sepsis Guideline as needed ➤ Reference Seizure/Convulsions Guideline as needed ➤ Reference Heat Related Emergencies Guideline as needed ➤ For significantly elevated body temperature, or if patient feels extremely hot, EMS providers may apply cool moist towels to the body to slowly lower the temperature; do not make the patient shiver ➤ If conscious and alert, patient may drink fluids
BASIC	<ul style="list-style-type: none"> ➤ Consider Acetaminophen or Ibuprofen for patients able to tolerate PO <ul style="list-style-type: none"> • Acetaminophen (pediatric-only at EMT/EMT-Intermediate level) <ul style="list-style-type: none"> ○ Pediatric Dose: 15 mg/kg PO, one time only • Ibuprofen <ul style="list-style-type: none"> ○ Adult Dose: 400-800 mg, one dose only ○ Pediatric Dose for children 6 months of age or older: 10 mg/kg PO to maximum dose of 800 mg, one time only
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated
PARAMEDIC	<ul style="list-style-type: none"> ➤ In addition to EMT medications listed above, may consider Acetaminophen for adult patients able to tolerate PO <ul style="list-style-type: none"> • Adult Dose: 650 mg PO, one time only

GENERAL	<p style="text-align: center;"><u>HYPERKALEMIA</u></p> <p style="text-align: center;"><u>Effective 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ Hyperkalemia is a potentially life-threatening condition that occurs when potassium levels increase above 5.5 mEq/L (normal serum potassium = 3.5 - 5.0 mEq/L) ➤ Hyperkalemia may result from many conditions including, but not limited to: ➤ Excessive potassium supplementation (via diet and/or medications) ➤ Crush injury/compartment syndrome ➤ Burns ➤ Renal failure, especially in case of missed dialysis ➤ Acidosis, including sepsis and/or diabetic ketoacidosis ➤ Symptoms may be vague, such as weakness/fatigue, confusion, lethargy, and/or bradycardia
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Altered Mental Status Guideline as needed ➤ Reference Burns Guideline as needed ➤ Reference Crush Injury Guideline as needed ➤ Reference Diabetic Emergencies Guideline as needed ➤ Reference Sepsis Guideline as needed ➤ Cardiac monitor to capture rhythm; obtain 12-lead ECG and repeat often, if available ➤ Watch closely for decompensation and prepare for cardiac arrest
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG ➤ MILD hyperkalemia (potassium 5.5 ~ 6.5 mEq/L): Peaked T waves, increases in PR interval and decrease in P wave amplitude <ul style="list-style-type: none"> • Albuterol: 15 grams nebulized, may repeat for severe hyperkalemia

➤ **MODERATE to SEVERE hyperkalemia** (potassium > 6.5 mEq/L):

- 6.5 ~ 7.5 mEq/L: Loss of P wave
- 7.5 ~ 8.5 mEq/L: Widening QRS
- 8.5+ mEq/L: QRS approaches sine wave



- **Albuterol:** 15 grams nebulized, may repeat as needed
- **Calcium Chloride or Calcium Gluconate**
 - **Calcium Chloride**
 - **Adult Dose:** 1 gram IV/IO over 10 minutes
 - **Pediatric Dose:** 20 mg/kg IV/IO over 10 minutes, maximum dose 1 gram
 - **Calcium Gluconate**
 - **Adult Dose:** 3 grams IV/IO over 10 minutes
 - **Pediatric Dose:** 60 mg/kg IV/IO over 10 minutes, maximum dose 3 grams
- **Sodium Bicarbonate**
 - **Adult Dose:** 50 mEq IV/IO every 3 - 5 minutes until QRS complex narrows
 - **Pediatric Dose:** 1 mEq/kg IV/IO every 3 - 5 minutes until QRS complex narrows

➤ Repeat 12-lead ECG frequently

GENERAL	<p style="text-align: center;"><u>NAUSEA</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Abdominal Pain Guideline as needed ➤ Reference Non-Traumatic Chest Pain Guideline as needed ➤ Cardiac monitor to capture rhythm and obtain 12-lead ECG if available as needed, especially if patient complains of chest or upper abdominal pain ➤ Administer Inhaled Isopropyl Alcohol (Alcohol Prep Pad) <ul style="list-style-type: none"> • Place Alcohol Prep Pad between upper lip and nose and inhale through nose • Studies have shown this is more effective than Ondansetron for nausea relief
BASIC	<ul style="list-style-type: none"> ➤ If trained, providers may utilize Acupressure Guideline for nausea treatment
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated; also consider for patients with possible dehydration and who are unable to take PO ➤ Consider Ondansetron or Promethazine <ul style="list-style-type: none"> • May use either in conjunction with Isopropyl Alcohol • May use both if single agent ineffective • Ondansetron <ul style="list-style-type: none"> ○ Adult Dose: 4 - 8 mg IV/IM/PO ○ Pediatric Dose for children 6 months of age and older: <ul style="list-style-type: none"> ▪ < 25 kg: 2 mg IV/IM/PO ▪ > 25 kg: 4 mg IV/IM/PO • Promethazine <ul style="list-style-type: none"> ○ Adult Dose: 12.5 - 25 mg IV/IM ○ Pediatric Dose for children 2 years of age or older: 0.25 - 0.5 mg/kg IV/IM to maximum dose of 25 mg
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG
NOTES	<ul style="list-style-type: none"> ➤ Use caution in patients with known prolonged Q-T interval; high doses of ondansetron and promethazine may prolong Q-T interval and lead to torsades de pointes

GENERAL	<p style="text-align: center;"><u>PSYCHIATRIC EMERGENCIES</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Signs and symptoms may include depression and suicidal behavior/ideation, hallucinations, pressured speech, loose associations, racing thoughts, grandiose or paranoid ideation, delusions, extreme anxiety, or any other aggressive actions that could cause harm to the patient or others ➤ Illnesses, overdoses, and other medical conditions may sometimes appear to be psychiatric emergencies – make sure to look for medical causes (and effects) of patient’s behavior
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Ensure scene and crew safety ➤ Limit the number of providers making contact and approach cautiously ➤ Reference Primary Management Guideline ➤ Reference Altered Mental Status Guideline as needed ➤ Reference Sepsis Guideline as needed ➤ Reference Ingestion/Poisoning/Overdose Guideline as needed ➤ Consider and treat all possible trauma/medical causes for aberrant behavior per relevant guidelines ➤ Patient may become combative; reference Chemical and Physical Restraint Guideline as needed ➤ Transport will usually be to local ED of patient choice or closest facility for medical and psychiatric evaluation ➤ A patient may bypass ED evaluation and be transported directly to UNM Mental Health or Presbyterian Kaseman in Albuquerque if each of the following requirements are met: <ul style="list-style-type: none"> • Patient must have either an unambiguous psychiatric condition (suicidal ideations) or a history of psychiatric illness that is consistent with current presentation • Patient must be alert with no evidence of illness, injury, or ingestion/overdose • Vital signs must be within normal limits • MCEP at receiving facility must agree and approve ED bypass/direct transport ➤ Law Enforcement officers may transport directly to an ED or mental health facility if all of the above conditions are met (MCEP contact not required)
NOTES	<ul style="list-style-type: none"> ➤ Acceptable adult vital signs for ED bypass/direct transport to psychiatric facility: <ul style="list-style-type: none"> • Heart Rate between 60-110 and systolic BP 90-160 • Respiratory Rate between 12-25 and SpO₂ ≥ 90% • BGL 70-250

GENERAL	<p style="text-align: center;"><u>SEIZURES / CONVULSIONS</u></p> <p style="text-align: center;"><u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ A detailed history of seizure activity including onset, duration, type, medication taken (or missed) and prior seizure history is important as it may lead the ED staff to the source of the problem
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Protect patient and provider from injury ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline as needed ➤ Reference Eclampsia Guideline as needed ➤ Reference Ingestion/Poisoning/Overdose Guideline as needed ➤ Reference Diabetic Emergencies Guideline as needed ➤ Reference Fever Guidelines as needed ➤ Reference Alcohol Withdrawal Guideline as needed
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated
PARAMEDIC	<ul style="list-style-type: none"> ➤ If paramedic witnesses seizure activity, administer Midazolam <ul style="list-style-type: none"> • Adult Dose: 10 mg IM/IN; 5 mg IV/IO; may repeat every 10 minutes as needed • Pediatric Dose: 0.2 mg/kg IM/IN, up to maximum dose of 10 mg; 0.1 mg/kg IV/IO, up to maximum dose of 5 mg; may repeat every 10 minutes as needed • <u>IM/IN route/dosing preferred in seizing patients without IV/IO access</u>; may use IV/IO route/dosing if IV/IO in place prior to seizure ➤ Prepare to actively manage the patient's airway in case of respiratory depression ➤ Monitor ETCO₂
NOTES	<ul style="list-style-type: none"> ➤ Status Epilepticus exists when witnessed seizure activity continues for > 5 minutes or multiple seizures recur without a return to baseline mental status

GENERAL	<p style="text-align: center;"><u>SEPSIS</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Modified SIRS Criteria = Suspicion of Infection plus two of the following: <ul style="list-style-type: none"> • Temperature > 38.3 C or < 36 C (> 100.1 F or <96.8 F) • Heart Rate > 90 • Respiratory Rate > 20 ➤ Other considerations include fever, altered mental status, hypotension, ETCO₂ < 25 mmHg and elevated serum lactate (if available)
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline as needed ➤ Reference Altered Mental Status Guideline as needed ➤ Reference Diabetic Emergencies Guideline as needed ➤ Cardiac monitor to capture rhythm and obtain 12-lead ECG if available/applicable
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 30 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability <ul style="list-style-type: none"> • Patients with severe sepsis or septic shock often require large-volume fluid resuscitation • Closely monitor patient for development of pulmonary edema ➤ Titrate additional boluses to the patient's hemodynamic and perfusion status
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG and ETCO₂ ➤ For patients in septic shock <u>not responsive to two 30 mL/kg Normal Saline or Lactated Ringers boluses</u> or who have developed pulmonary edema during fluid resuscitation, consider Epinephrine Drip, Epinephrine Mini-Bolus, or Norepinephrine Drip <ul style="list-style-type: none"> • Reference Infusion Pump Guideline • Epinephrine Drip <ul style="list-style-type: none"> ○ Adult Dose: 2 – 10 mcg/min IV/IO; titrate to MAP 65 mmHg for adults ○ Pediatric Dose: 0.1 – 1 mcg/kg/minute IV/IO; titrate MAP to age • Epinephrine Mini-Bolus <ul style="list-style-type: none"> ○ Adult Dose: 2 – 10 mcg IV/IO, may repeat every minute as needed to sustain MAP of 65 mmHg for adults ○ Not indicated for pediatrics • Norepinephrine Drip <ul style="list-style-type: none"> ○ Adult Dose: 2 – 10 mcg/min IV/IO; titrate to MAP 65 mmHg for adults ○ Not indicated for pediatrics

GENERAL	<p align="center"><u>STROKE / CEREBROVASCULAR INCIDENT (CVA)</u></p> <p align="center">Effective 2/20/2020</p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline as needed ➤ Reference Altered Mental Status Guideline as needed ➤ Reference Seizures/Convulsions Guideline as needed ➤ Reference Diabetic Emergencies Guideline as needed ➤ Determine LAST KNOWN WELL time – very important for treatment algorithm ➤ If possible, obtain family member/witness contact information to give to Emergency Department personnel ➤ Reference Stroke Scales Checklist Guideline as needed ➤ Reference Stroke Alert Destination Guideline as needed ➤ Cardiac monitor to capture rhythm and obtain 12-lead ECG if available ➤ Administer Oxygen to achieve an oxygen saturation of at least 94%
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead
NOTES	<ul style="list-style-type: none"> ➤ Stroke/CVA can affect all age groups, including children. Refer to this guideline as needed for patients of all ages

STROKE SCALES CHECKLISTS: CPHSS

Revised 2/15/2021

LAST KNOWN WELL TIME:

FAMILY MEMBER/WITNESS CONTACT NUMBER:

Cincinnati Pre-Hospital Stroke Scale (CPHSS)

	Normal	Abnormal	Patient's Score
Facial Droop (have patient smile)	Both sides of face move equally = 0	One side of face does not move as well = 1	_____
Arm Drift (have patient close eyes and hold both arms out straight for 10 seconds)	Both arms move equally and do not drift = 0	Arm (one or both) falls to bed within 10 seconds = 1	_____
Speech Abnormality (have patient say "the best green chile is from New Mexico")	Patient uses correct words, without slurring = 0	Patient slurs words, uses wrong words, or cannot speak = 1	_____
IF TOTAL SCORE = 1 OR MORE, DECLARE A <u>STROKE ALERT</u> AND GO TO C-STAT SCALE (next page) <i>If total score is 0, then continue treatment according to other appropriate guidelines</i>			TOTAL CPHSS SCORE _____

GO TO NEXT PAGE

STROKE SCALES CHECKLISTS: C-STAT

Effective 2/20/2020

C-STAT Large Vessel Occlusion Score*Perform if CPHSS ≥ 1*

	Normal	Abnormal	Patient's Score
Gaze Deviation	Both eyes track together = 0	Both eyes fixed in one direction OR disconjugate gaze (unable to look with both eyes in same direction) = 2	_____
Arm Drift (same as CPHSS)	Both arms move equally and do not drift = 0	Arm (one or both) falls to bed within 10 seconds = 1	_____
Altered Mental Status Ask patient: <ul style="list-style-type: none"> • To state age and current month • To close eyes and to open and close hands 	Correctly answers age and/or month AND is able to follow at least one of the commands = 0	Incorrectly answers age OR month AND does not follow either command = 1	_____
IF TOTAL SCORE = 2 OR MORE, DECLARE A <u>LARGE VESSEL OCCLUSION (LVO) STROKE ALERT</u>			TOTAL CSTAT SCORE _____

GO TO NEXT PAGE

STROKE ALERT DESTINATION

Effective 2/20/2020

GENERAL

- Primary role for EMS in Stroke/CVA is detection of stroke symptoms with prompt notification and safe transport to the appropriate Primary or Large Vessel Occlusion (LVO) Stroke Hospital
- In-hospital goal treatment for ischemic Stroke/CVA is rtPA administration within 6 hours of LAST KNOWN WELL time (best case: as early as possible)
- For LVO Stroke/CVA, goal is for rtPA and thrombectomy at an LVO Stroke Hospital within 6 hours of LAST KNOWN WELL time (best case: as early as possible, though some may be treated up to 24 hours from LAST KNOWN WELL time)

ALL PROVIDERS

Destination for patients with a + CPHSS Score (1 or more)		
Time from <u>LAST KNOWN WELL</u> to arrival at ED	C-STAT Score	Preferred Destination (if feasible & safe)
0-6 hours	- (less than 2)	<u>Closest</u> Primary Stroke Hospital
0-6 hours	+ (2 or more)	LVO Stroke Hospital
6-24 hours	- (less than 2)	<u>Any</u> Primary Stroke Hospital
6-24 hours	+ (2 or more)	LVO Stroke Hospital

LVO Stroke Hospitals:	Lovelace Downtown, UNM Downtown
Primary Stroke Hospitals (Albuquerque and surrounding areas):	Lovelace Downtown, Presbyterian Downtown, UNM Downtown
Hospitals <u>without</u> any Stroke Capability:	Veterans' Administration Hospital, Acoma-Cañoncito-Laguna IHS Hospital
Consider transporting to the closest hospital (except VA or ACL) if patient is/becomes unstable, weather conditions are unsafe, or if bypassing a closer hospital will add 30 minutes or more to ground transport	

- Call destination hospital as soon as possible after initiating transport, to give the stroke team time to prepare
- Report should include "STROKE ALERT" or "LVO STROKE ALERT", CPHSS and C-STAT scores, and time LAST KNOWN WELL, as well as age, gender, and vital signs

6. CARDIAC GUIDELINES: ALL AGES AND ADULT-SPECIFIC

GENERAL	<p style="text-align: center;"><u>ADULT CARDIAC ARREST (NON-TRAUMATIC)</u></p> <p style="text-align: center;"><u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ This guideline is for adult patients in cardiac arrest from presumed non-traumatic cause who do not have a valid DNR/MOLST and who do not meet Dead at Scene Guideline ➤ If in doubt, <u>initiate CPR</u>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Initiate prompt chest compressions at a rate of 100-120 per minute ➤ Minimize CPR interruptions is much as possible ➤ Apply AED or manual defibrillator promptly and – if indicated – defibrillate at maximum energy setting as soon as possible ➤ Continue pattern of “2 minutes of CPR – Pulse/Rhythm Check – Defibrillate as Indicated” until ROSC is achieved or resuscitation is terminated ➤ If mechanical CPR device is/becomes available, apply at next pulse check with minimal interruptions in compressions ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline <ul style="list-style-type: none"> • Apply 15 LPM Oxygen via non-rebreather until able to manage airway • Ventilate at 10-12 breaths per minute once able to manage airway ➤ If mechanical ventilator is/becomes available, reference Mechanical Ventilation Guideline ➤ If ROSC occurs, reference Return of Spontaneous Circulation Guideline ➤ Reference Termination of Resuscitation Guideline if ROSC has not occurred after 30 minutes or if resuscitation otherwise appears futile
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Epinephrine 0.1 mg/mL (OLD NAME 1:10,000) <ul style="list-style-type: none"> • Adult Dose: 1 mg IV/IO every 10 minutes until ROSC achieved or resuscitation efforts are terminated ➤ Administer 10 mL/kg bolus of Normal Saline or Lactated Ringers; repeat as clinically indicated <p style="text-align: center;">GO TO NEXT PAGE</p>

CONTINUED FROM PREVIOUS PAGE

PARAMEDIC

- If patient is still in ventricular tachycardia or ventricular fibrillation after one shock has been delivered, administer antiarrhythmic (**choose ONE, not both**):
 - **Amiodarone:**
 - **First dose:** 300 mg IV/IO
 - **Second dose** 5 minutes after first dose: 150 mg IV/IO
 - For extended transport times in a patient with persistent ventricular tachycardia or recurrent ventricular fibrillation, consider **Amiodarone infusion**: rate = 1 mg/minute; reference **Infusion Pump Guideline**
 - **Lidocaine:**
 - **First dose:** 1 - 1.5 mg/kg IV/IO
 - **Subsequent doses:** 0.5 - 0.75 mg/kg IV/IO, every 5 minutes to a maximum total dose of 3 mg/kg
 - For extended transport times in a patient with persistent ventricular tachycardia or recurrent ventricular fibrillation, consider **Lidocaine infusion**: rate = 1 mg/minute; reference **Infusion Pump Guideline**
- If patient has torsades de pointes/polymorphic ventricular tachycardia:
 - **Magnesium Sulfate** 2 grams IV/IO; administer over 4 minutes
- If patient has known or suspected hyperkalemia, renal failure, hypocalcemia, calcium channel blocker overdose, or Tricyclic Antidepressant (TCA) overdose:
 - **Calcium Chloride** 1 gram or **Calcium Gluconate** 3 grams slow IV/IO
 - **Sodium Bicarbonate** 50 mEq IV/IO every 3 - 5 minutes until QRS complex narrows
- **If patient remains in ventricular fibrillation after 2 shocks have been delivered:**
 - Reference **Refractory Ventricular Fibrillation Guideline**

GENERAL	<p style="text-align: center;"><u>REFRACTORY VENTRICULAR FIBRILLATION</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Refractory Ventricular Fibrillation is defined by the ongoing presence of ventricular fibrillation – as interpreted by a Paramedic, or the continued advisement of “SHOCK ADVISED” by an AED – despite optimal electrical and medical therapy ➤ This guideline is to be used in conjunction with Adult Cardiac Arrest (Non-Traumatic) Guideline or Pediatric Cardiac Arrest (Non-Traumatic) Guideline ➤ Consider consulting the on-call UNM EMS Consortium Physician for additional guidance as needed
PARAMEDIC	<ul style="list-style-type: none"> ➤ If patient remains in ventricular fibrillation after 2 shocks have been delivered: <ul style="list-style-type: none"> • If not already done, administer antiarrhythmic medication • Apply second set of defibrillator pads, switch monitor to the new set of pads, and deliver next shock through the new pads to attempt energy vector change <ul style="list-style-type: none"> ○ If initial set of defibrillator pads were placed base-apex, apply second set anterior-posterior, or vice-versa ○ <u>Defibrillator pads should not be touching each other</u> ➤ If patient remains in ventricular fibrillation after 3 shocks have been delivered: <ul style="list-style-type: none"> • If not already done, give Magnesium Sulfate for possible torsades de pointes: <ul style="list-style-type: none"> ○ Adult Dose: 2 grams IV/ IO; <u>administer over 4 minutes</u> ○ Pediatric Dose: 50 mg/kg IV/IO to a maximum total dose of 2 grams; <u>administer over 4 minutes</u> • If a second cardiac monitor is on scene <u>and if approved by departmental policies</u>, prepare for double-sequential defibrillation <ul style="list-style-type: none"> ○ Attach one cardiac monitor to the pads in the anterior-posterior orientation and one cardiac monitor to pads in the base-apex orientation ○ When defibrillating, the same person should push the “Shock” button on each monitor, in rapid succession ➤ Patient remains in ventricular fibrillation after 4 shocks have been delivered, or after an attempt of double-sequential defibrillation: <ul style="list-style-type: none"> • Attempt additional trials of double sequential defibrillation • Cease epinephrine administration

GENERAL	<p style="text-align: center;"><u>CARDIAC ARREST – HYPOTHERMIA</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Cardiac arrest with suspected or confirmed core temperature below 95 degrees Fahrenheit merits special procedures; aggressive attempts at standard resuscitation can further harm the patient ➤ The treatment of cardiac arrest secondary to hypothermia is to rewarm the patient. Rewarming capabilities are limited in the prehospital setting ➤ Unlike most non-traumatic cardiac arrest patients, patients suffering cardiac arrest due to hypothermia generally should be transported to the nearest appropriate hospital for rewarming and further treatment ➤ Resuscitative efforts may be withheld in patients with ice in the airway, frozen solid chest wall that cannot be compressed, or a cause of death clearly due to a lethal injury
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Move patient gently if movement is necessary ➤ Perform pulse check for 60 seconds <ul style="list-style-type: none"> • If any pulse is detected, do not perform chest compressions • If no pulse is detected, begin chest compressions ➤ Apply AED or Manual Defibrillator promptly and, if indicated, defibrillate at maximum energy <u>only once</u>. Defer additional defibrillation attempts until patient has been rewarmed and a core temperature can be obtained ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline ➤ Reference Hypothermia Guideline; remove any wet garments and provide passive external rewarming. ➤ Cardiac monitor to capture rhythm; obtain 12-lead ECG if available ➤ Consider calling the on-call UNM EMS Consortium Physician
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Epinephrine 0.1 mg/mL (OLD NAME 1:10,000) <ul style="list-style-type: none"> • Adult Dose: 1 mg IV/IO <u>one dose only</u> ➤ Administer 10 mL/kg bolus of Normal Saline or Lactated Ringers; repeat as clinically indicated
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG ➤ Do not treat bradycardias ➤ Do not administer anti-arrhythmic medications

GENERAL	<p style="text-align: center;"><u>RETURN OF SPONTANEOUS CIRCULATION (ROSC)</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ This guideline is intended for use in the period immediately after a cardiac arrest patient regains pulses ➤ Such a patient is still fragile and must be watched closely; be prepared for re-arrest
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline ➤ Reference Mechanical Ventilation Guideline ➤ Reference Cardiogenic Shock Guideline as needed ➤ Address potential reversible causes of the arrest ➤ Provide supplemental Oxygen to achieve SpO₂ of 94% ➤ Cardiac monitor to capture rhythm; obtain 12-lead ECG if available ➤ <u>Do not move patient until stable for at least 5 minutes</u> ➤ The following mnemonic ALIVE-12 may be helpful in prioritizing post-arrest care: <ul style="list-style-type: none"> • Airway: Reference Airway Management Guideline. Secure airway device • Lines: Ensure patency and secure IV/IO lines for transport • Inotrope (Paramedic): Prepare vasopressor infusion or mini-boluses for administration during transport if needed. • Ventilator: Reference Mechanical Ventilation Guideline • End-tidal CO₂: Maintain continuous waveform capnography if available. Titrate respiratory rate to obtain ETCO₂ reading to 35 - 45mm Hg • 12-Lead ECG: Obtain 12-lead ECG to capture post-arrest rhythms ➤ Reference Pain Management Guideline as needed ➤ Return to Adult Cardiac Arrest (Non-Traumatic) Guideline if patient re-arrests
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer 10 mL/kg bolus of Normal Saline or Lactated Ringers; repeat as clinically indicated
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG

GENERAL	<p style="text-align: center;"><u>TERMINATION OF RESUSCITATION EFFORTS</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <p>➤ This guideline is intended for use during non-hypothermic cardiac arrests that do not achieve return of spontaneous circulation</p>
ALL PROVIDERS	<p>➤ Contact the on-call UNM EMS Consortium Physician to discuss termination of resuscitative efforts in any of the following circumstances:</p> <ul style="list-style-type: none"> • Interventions have been implemented for at least 30 minutes without ROSC • EMS providers have become exhausted and cannot continue resuscitation • A valid EMS DNR or MOST DNR order is presented; reference Do Not Resuscitate / Advanced Directives Guideline • Family members request that resuscitation efforts be terminated

GENERAL	<p style="text-align: center;"><u>CARDIOGENIC SHOCK</u></p> <p style="text-align: center;"><u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ Cardiogenic shock occurs when the heart fails to adequately pump blood. Often this occurs post-cardiac arrest, or in the setting of cardiac ischemia. Patients may be hypotensive, short of breath, and/or have signs of poor perfusion. They may exhibit crackles or wheezing upon auscultation of the lungs. Pink, frothy sputum may be present
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Adult Respiratory Distress Guideline ➤ Reference Continuous Positive Airway Pressure (CPAP) Checklist ➤ Reference Non-Traumatic Chest Pain and Acute Coronary Syndrome Guideline ➤ If patient is short of breath or hypoxic, provide supplemental Oxygen to achieve an SpO₂ of 94%. Withhold oxygen if patient is not short of breath and if SpO₂ ≥ 94% ➤ Cardiac monitor to capture rhythm ➤ Obtain 12-lead ECG if available
INTERMEDIATE	<ul style="list-style-type: none"> ➤ If lung sounds are clear, administer 5 mL/kg Normal Saline or Lactated Ringers bolus. This may be repeated until: <ul style="list-style-type: none"> • Systolic BP reaches 90 mm Hg • Patient develops dyspnea or dyspnea worsens • Crackles or wheezing are heard on lung auscultation • 2 L of Normal Saline or Lactated Ringers have been administered
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG ➤ If severe symptoms despite above treatments, consider Epinephrine Drip, Epinephrine Mini-Bolus, or Norepinephrine Drip <ul style="list-style-type: none"> • Reference Infusion Pump Guideline • Epinephrine Drip <ul style="list-style-type: none"> ○ Adult Dose: 2 – 10 mcg/min IV/IO; titrate to MAP 65 mmHg for adults ○ Pediatric Dose: 0.1 – 1 mcg/kg/minute IV/IO; titrate MAP to age • Epinephrine Mini-Bolus <ul style="list-style-type: none"> ○ Adult Dose: 2 – 10 mcg IV/IO, may repeat every minute as needed to sustain MAP of 65 mmHg for adults ○ Not indicated for pediatrics • Norepinephrine Drip <ul style="list-style-type: none"> ○ Adult Dose: 2 – 10 mcg/min IV/IO; titrate to MAP 65 mmHg for adults ○ Not indicated for pediatrics

GENERAL	<p style="text-align: center;"><u>CONGESTIVE HEART FAILURE EXACERBATION</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Patients with congestive heart failure exacerbations often present with shortness of breath, crackles and/or wheezing upon auscultation of the lungs, cough, lower extremity edema, and anxiety. The patient will often report a history of congestive heart failure, but symptoms suggestive of this condition may be present even in patients with no prior history
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Adult Respiratory Distress Guideline ➤ Reference Non-Traumatic Chest Pain / Acute Coronary Syndrome Guideline if needed ➤ Reference Continuous Positive Airway Pressure (CPAP) Checklist ➤ Allow patient to assume a position of comfort ➤ If patient is short of breath or hypoxic, provide supplemental Oxygen to achieve an SpO₂ of 94%. Withhold oxygen if patient is not short of breath and if SpO₂ ≥ 94% ➤ Cardiac monitor to capture rhythm ➤ Obtain 12-lead ECG if available ➤ Reference Cardiogenic Shock Guideline if patient decompensates
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Withhold IV fluids unless patient becomes hypotensive
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG ➤ If patient is in respiratory distress and hypertensive, administer Nitroglycerin 0.4mg SL every 5 minutes until dyspnea is relieved or until systolic blood pressure decreases below 90 mg Hg. ➤ Prior to the administration of Nitroglycerin for congestive heart failure exacerbation, ensure that: <ul style="list-style-type: none"> • 12-lead ECG demonstrates no signs of inferior wall ischemia • Patient has IV access established • Patient has NOT taken any phosphodiesterase inhibitors or other medications for erectile dysfunction or pulmonary hypertension in the prior 48 hours

NON-TRAUMATIC CHEST PAIN / ACUTE CORONARY SYNDROME

Revised 2/15/2021

GENERAL

- Symptoms of Acute Coronary Syndrome (ACS) may include:
 - Chest pain that may radiate to the jaw, back, or either arm
 - Chest pain or upper abdominal pain accompanied by vomiting
 - Diaphoresis and/or pallor
- Patients with ACS may present only with very vague symptoms. Have a low threshold to consider ACS, especially for older patients, females, and patients with diabetes
- While 12-lead ECG findings of cardiac ischemia are strongly suggestive of ACS, treat patients with ACS symptoms according to this guideline *even if 12-lead ECG is normal*

ALL PROVIDERS

- Reference **Primary Management Guideline**
- Obtain 12-lead ECG **within 5 minutes of encountering patient**, or as soon as 12-lead ECG capable device arrives
- If patient is short of breath or hypoxic, provide supplemental **Oxygen** to achieve an SpO₂ of 94%. Withhold oxygen if patient is not short of breath and if SpO₂ ≥ 94%
- **Aspirin** 324 mg PO
- If 12-lead ECG shows STEMI:
 - Call receiving hospital **within 10 minutes of STEMI ECG** with **“STEMI ALERT”**:
 - **STEMI ALERT** radio report should include:
 - “This is <unit number> calling with a **STEMI ALERT**”
 - Unit licensure level
 - Patient age and gender
 - ECG interpretation (machine if BLS/ILS; Paramedic interpretation if ALS)
 - Patient symptoms and time of onset
 - Patient vital signs
 - Any treatments given or planned
 - ETA
 - Transmit 12-lead ECG to receiving facility if able
 - Apply defibrillation pads
 - Obtain serial 12-lead ECGs every 5-10 minutes, or earlier if symptoms change
 - Minimize scene time
- Reference **Pain Management Guideline**

GO TO NEXT PAGE

INTERMEDIATE	<p style="text-align: center;">CONTINUED FROM PREVIOUS PAGE</p> <ul style="list-style-type: none"> ➤ Administer 10 mL/kg bolus of Normal Saline or Lactated Ringers; repeat as clinically indicated ➤ Consider placing a second IV if time and patient condition permits
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG ➤ If pain cannot be controlled utilizing Pain Management Guideline, consider Nitroglycerin 0.4 mg SL every 5 minutes for a maximum of 3 doses <u>if all of the following conditions are met:</u> <ul style="list-style-type: none"> • Systolic BP greater than 120 mm Hg • 12-lead ECG demonstrates no signs of inferior wall ischemia • Patient has IV access established • Patient has NOT taken any phosphodiesterase inhibitors or other medications for erectile dysfunction or pulmonary hypertension in the prior 48 hours ➤ Fentanyl and Nitroglycerin can be given to the same patient provided vital signs remain stable ➤ If a patient with a sympathomimetic or stimulant overdose (such as cocaine or methamphetamine) has ACS symptoms or has 12-lead ECG changes concerning for ischemia: <ul style="list-style-type: none"> • Consider Midazolam 10 mg IM/IN; 5 mg IV/IO; may repeat every 10 minutes as needed

GENERAL	<p style="text-align: center;"><u>ADULT REGULAR NARROW COMPLEX TACHYCARDIA</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Most regular narrow complex tachycardias represent sinus tachycardia or another atrial tachycardia such as supraventricular tachycardia (SVT) or multifocal atrial tachycardia ➤ Sinus tachycardia represents a <u>normal response</u> to a physiologic stressor such as volume depletion, sepsis, infection/fever, temperature dysregulation, metabolic disturbance, toxidrome, pain, or anxiety ➤ SVT occurs episodically and may be precipitated by exposure to stimulants or stress or may be caused by the presence of an abnormal electrical pathway within the heart's conduction system. It is important to evaluate the patient for these underlying causes
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ If patient is short of breath or hypoxic, provide supplemental Oxygen to achieve an SpO₂ of 94%. Withhold oxygen if patient is not short of breath and if SpO₂ ≥ 94% ➤ Consider underlying causes of narrow complex tachycardia; reference appropriate treatment guidelines as needed based on suspected cause: <ul style="list-style-type: none"> • Acute medical illness • Stimulant intoxication • Electrolyte abnormalities ➤ Cardiac monitor to capture rhythm ➤ Obtain 12-lead ECG if available
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated <p style="text-align: center;"><i>GO TO NEXT PAGE</i></p>

CONTINUED FROM PREVIOUS PAGE

PARAMEDIC

- For STABLE patient:
 - Interpret 12-Lead ECG
 - Attempt vagal maneuvers, and consider modified Valsalva maneuver:
 - Instruct patient to blow through a straw or syringe for 15 seconds, then immediately place patient supine and elevate the legs
 - **Adenosine 6 mg** rapid IVP followed by 20 mL rapid **Normal Saline** flush
 - If unchanged, administer **Adenosine 12 mg** rapid IVP followed by 20 mL rapid **Normal Saline** flush
- For UNSTABLE patient:
 - Consider **Adenosine** administration and/or **Pain Management Guideline** if time allows while preparing for synchronized cardioversion; however, do not delay cardioversion in the unstable patient
 - **Synchronized Biphasic cardioversion:**
 - Lifepak: start at 100 Joules; if ineffective, increase to 200J/300J/360J
 - Zoll: start at 75 Joules; if ineffective, increase to 120J/150J/200J
- If patient remains unstable and in an irregular narrow complex tachycardia, consider repeating **Normal Saline or Lactated Ringers** bolus and consider consulting the on-call UNM EMS Consortium Physician

ADULT IRREGULAR NARROW COMPLEX TACHYCARDIA

Revised 2/15/2021

GENERAL

- Most irregular narrow complex tachycardias will represent atrial fibrillation
- Many patients experience atrial fibrillation chronically with episodic increases in their heart rates, at which point they may become symptomatic
- Patients may develop atrial fibrillation acutely as a primary cardiac dysrhythmia, or as a secondary effect of severe medical illness, alcohol withdrawal, medication or drug toxicity, or metabolic disturbance such as thyroid disease. It is important to evaluate and treat for these underlying causes if patient condition permits

ALL PROVIDERS

- Reference **Primary Management Guideline**
- If patient is short of breath or hypoxic, provide supplemental **Oxygen** to achieve an SpO₂ of 94%. Withhold oxygen if patient is not short of breath and if SpO₂ ≥ 94%
- Attempt to determine if this is a chronic rhythm for patient; if acute, attempt to determine time of onset
- Cardiac monitor to capture rhythm
- Obtain 12-lead ECG if available

INTERMEDIATE

- If the patient has clear lungs and no evidence of peripheral edema, and/or has evidence of hemodynamic instability, administer a 10 mL/kg bolus of **Normal Saline or Lactated Ringers**; repeat as clinically indicated

GO TO NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

PARAMEDIC

- Interpret 12-lead ECG
- If patient is stable, continue monitoring and treating symptoms as needed
- In an unstable patient for whom the atrial dysrhythmia is felt to be the primary factor in the patient's hemodynamic instability, perform synchronized cardioversion
- Consider **Pain Management Guideline** if time and patient condition permits
 - For unstable patient, including those with ***Atrial Fibrillation*** and ***Atrial Flutter*** perform **Synchronized Biphasic cardioversion**:
 - Lifepak: start at 100 Joules; if ineffective, increase to 200J/300J/360J
 - Zoll: start at 75 Joules; if ineffective, increase to 120J/150J/200J
- If patient remains unstable and in an irregular narrow complex tachycardia, consider repeating **Normal Saline or Lactated Ringers** bolus and consider consulting the on-call UNM EMS Consortium Physician

GENERAL	<p style="text-align: center;"><u>ADULT WIDE COMPLEX TACHYCARDIA WITH A PULSE</u></p> <p style="text-align: center;">Revised 2/15/2021</p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline ➤ Reference Ingestion/Poisoning Guideline if needed ➤ If patient is short of breath or hypoxic, provide supplemental Oxygen to achieve an SpO₂ of 94%. Withhold oxygen if patient is not short of breath and if SpO₂ ≥ 94% ➤ Consider underlying causes of wide complex tachycardia <ul style="list-style-type: none"> • Electrolyte abnormality • Toxic exposure • Medication overdose • Cardiac ischemia • Primary cardiac dysrhythmia • Atrial tachycardia with underlying bundle branch block or other aberrant conduction ➤ Cardiac monitor to capture rhythm ➤ Obtain 12-lead ECG if available
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated <p style="text-align: center;"><i>GO TO NEXT PAGE</i></p>

CONTINUED FROM PREVIOUS PAGE

PARAMEDIC

- Interpret 12-lead ECG
- For stable, monomorphic wide complex tachycardia:
 - If rate is less than 150:
 - Do not administer antiarrhythmic
 - Observe patient and treat any potential underlying causes
 - If rate is greater than 150, administer antiarrhythmic (**choose ONE, not both**):
 - **Amiodarone** 5 mg/kg IV/IO to a maximum total dose of 300 mg
 - **Lidocaine** 1 mg/kg IV/IO to a maximum total dose of 100 mg
- For stable, polymorphic tachycardia:
 - **Magnesium Sulfate** 2 grams IV/IO, administer over 4 minutes, if torsades de Pointes is suspected
 - **Sodium Bicarbonate** 50 mEq IV/IO if TCA ingestion is suspected
- Reference **Hyperkalemia Guideline** if hyperkalemia is suspected
- For any unstable wide complex tachycardia with pulse, consider synchronized cardioversion. Consider **Pain Management Guideline** if time and patient condition permits
 - For unstable patient with monomorphic wide complex tachycardia, perform **Synchronized Biphasic Cardioversion**:
 - Lifepak: start at 100 Joules; if ineffective, increase to 200J/300J/360J
 - Zoll: start at 75 Joules; if ineffective, increase to 120J/150J/200J
 - For unstable patient with polymorphic wide complex tachycardia, perform **Synchronized Biphasic Cardioversion**:
 - Lifepak: start at 200 Joules; if ineffective, increase to 300J/360J
 - Zoll: start at 120 Joules; if ineffective, increase to 150J/200J
- If patient remains unstable and in an irregular narrow complex tachycardia, consider repeating **Normal Saline or Lactated Ringers** bolus and consider consulting the on-call UNM EMS Consortium Physician

GENERAL	<p style="text-align: center;"><u>ADULT SYMPTOMATIC BRADYCARDIA</u></p> <p style="text-align: center;">Revised 2/15/2021</p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ If patient is short of breath or hypoxic, provide supplemental Oxygen to achieve an SpO₂ of 94%. Withhold oxygen if patient is not short of breath and if SpO₂ ≥ 94% ➤ Consider causes of bradycardia including the following; reference appropriate treatment guidelines as needed based on suspected cause: <ul style="list-style-type: none"> • Beta Blocker ingestion • Calcium Channel Blocker ingestion • Hypothermia • Hypothyroidism • Cardiac Ischemia • Hyperkalemia • Severe hypoxia ➤ Cardiac monitor to capture rhythm ➤ Obtain 12-lead ECG if available
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated <p style="text-align: center;">GO TO NEXT PAGE</p>

CONTINUED FROM PREVIOUS PAGE

PARAMEDIC

- Interpret 12-Lead ECG
- If symptomatic, consider **Atropine** 1 mg IV; may be repeated until a maximum of 3 mg total has been administered
- For UNSTABLE patient:
 - Consider **Pain Management Guideline** if time and patient condition permits
 - Begin transcutaneous pacing at 60 beats per minute and 20 mAmps
 - Increase amperage quickly to obtain electrical capture, increase by 5 mAmps increments until mechanical capture is achieved
 - Increase rate if symptoms have not improved despite mechanical capture
 - If transcutaneous pacing is not effective, consider **Epinephrine Drip or Epinephrine Mini-Bolus**
 - Reference **Infusion Pump Guideline**
 - **Epinephrine Drip**
 - **Adult Dose:** 2 – 10 mcg/min IV/IO; titrate to MAP 65 mmHg for adults
 - **Epinephrine Mini-Bolus**
 - **Adult Dose:** 2 – 10 mcg IV/IO, may repeat every minute as needed to sustain MAP of 65 mmHg for adults

VENTRICULAR ASSIST DEVICE

Effective 2/20/2020

GENERAL

- A ventricular assist device (VAD) is a surgically implanted mechanical pump that augments the native pump function of the heart
- Patients who have these devices are instructed on their usage and troubleshooting techniques and are instructed to contact the Ventricular Assist Device (VAD) coordinators at the institutions where the device was inserted if they have an emergency. Often EMS is only activated when troubleshooting techniques fail or the patient experiences an acute decompensation
- The pump itself and its connections to the heart and great vessels are completely internal. A percutaneous lead or driveline can be visualized exiting the patient's chest or abdominal wall, connecting to an externally worn battery pack
- Blood flow from certain mechanical circulatory support devices is continuous and non-pulsatile
 - Pulses may not be palpable peripherally or centrally
 - Heart sounds may not be audible with stethoscope over the mechanical noise of the device
 - Blood pressure may not be obtainable
 - Utilize other assessment factors to determine adequacy of circulation:
 - Level of consciousness
 - Respiratory rate and work of breathing
 - Skin color/capillary refill
- The patient's VAD Coordinator is the expert on the management of acute VAD emergencies and should be contacted by EMS providers if the patient's family has not already done so
- **Most patients with a mechanical circulatory support device can be managed according to standard treatment guidelines**

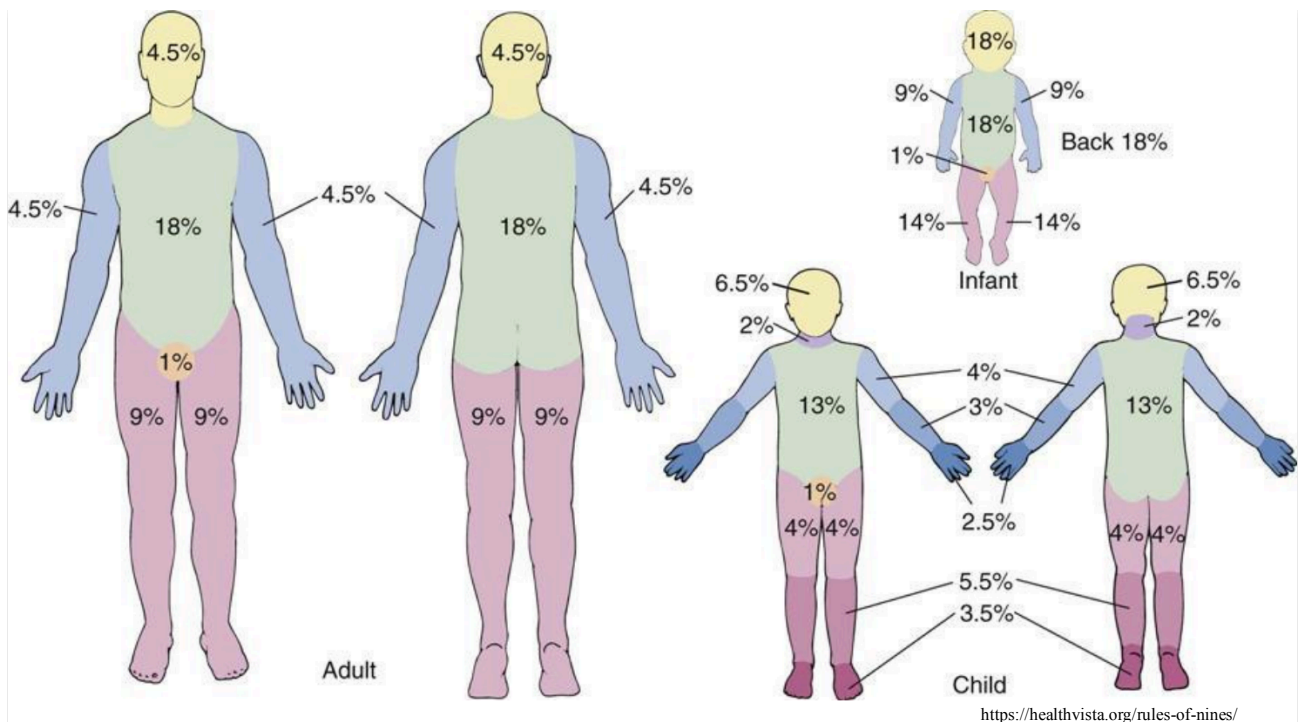
7. TRAUMA GUIDELINES

GENERAL	<p style="text-align: center;"><u>AMPUTATIONS</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Control bleeding; reference Major Trauma Guideline as needed ➤ Reference Pain Management Guideline as needed ➤ If time and patient condition permits: <ul style="list-style-type: none"> • Gently rinse the amputated parts with Normal Saline or Lactated Ringers to remove loose debris • Wrap amputated parts in dry gauze and keep cool • Do not scrub or immerse the amputated part in water • Do not place amputated part directly on ice ➤ Transport patient and amputated part to an Emergency Department with surgical capabilities
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated

BURNS

Effective 2/20/2020

Rules of Nines for Adults, Children, and Infants



- Use the diagram above to calculate Total Body Surface Area burned (TBSA%)
- Alternatively, the palm of a patient's hand represents 1% body surface area, and can be used to estimate TBSA%
- Be alert for patients with respiratory problems from smoke or chemical inhalation, respiratory tract burns or burns involving the face, head or chest.
- Major burns should be transported to UNMH, and these are categorized as:
 - Partial thickness burns greater than 10% TBSA in adults and **greater than 5% BSA in children**
 - Full thickness burns greater than 5% TBSA
 - Full thickness burns involving hands, face, eyes, ears, feet and perineum
 - Circumferential burns
 - Burns that compromise circulation
 - Burns with evidence of respiratory involvement or inhalation
 - High voltage electrical injuries
 - Burns with associated multi-system trauma
 - Burns to high-risk patients (underlying medical problems, especially respiratory)

GO TO NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

ALL PROVIDERS

- Reference **Primary Management Guideline**
- Reference **Airway Management Guideline** as needed
- Reference **Major Trauma Guideline** as needed
 - When burns are associated with severe trauma, trauma guidelines will supersede burn guidelines
- Reference **Pain Management Guideline** as needed
- Expose patient and remove burned/contaminated clothing
- Keep patient warm
- For Thermal Burns:
 - Estimate depth and percent of area injured
 - Partial Thickness burns <10% of adult and <5% of child may be cooled with water for 10 – 15 minutes and covered
 - Burns with less than 20% BSA can be covered using sterile moist dressing or commercial burn dressing (i.e. burn gel dressing)
 - Burns with greater than 20% BSA shall receive dry sterile dressing or commercial burn dressing (i.e. burn gel dressing)
- For Chemical Burns:
 - Identify contaminant; consult hazardous materials experts as needed
 - Flush with water for a minimum of 10 minutes
 - Brush off dry chemicals before irrigation

INTERMEDIATE

- For **pediatric patients** and patients 65 years of age or older with greater than 10% estimated TBSA:
 - Administer a 20 mL/kg bolus of **Normal Saline or Lactated Ringers**; repeat as clinically indicated for hemodynamic instability, or if patient has very extensive TBSA
- For adult patients with greater than 20% estimated TBSA:
 - Administer a 20 mL/kg bolus of **Normal Saline or Lactated Ringers**; repeat as clinically indicated for hemodynamic instability, or if patient has very extensive TBSA
- DO NOT place IV/IO in burned skin region unless absolutely necessary

GENERAL	<p style="text-align: center;"><u>CRUSH INJURY</u></p> <p style="text-align: center;"><u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ Crush injuries result from prolonged continuous pressure on large muscles (arms or legs) that causes muscle disintegration ➤ Compartment Syndrome results from deep tissue injury and develops when swelling is constricted within compartments created by inflexible muscle fasciae. This results in increased pressure in the compartment, causing restriction of blood flow, ischemia, swelling, and potentially tissue necrosis ➤ Causes of Crush Injury/Compartment Syndrome: <ul style="list-style-type: none"> • Trauma • Compression under body weight for extended periods of time • Muscle overuse (rhabdomyolysis) ➤ Potential Complications of Compartment Syndrome: <ul style="list-style-type: none"> • Metabolic acidosis • Arrhythmias (ventricular fibrillation most common) • Hyperkalemia
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Major Trauma Guideline as needed ➤ Reference Spinal Motion Restriction Guideline as needed ➤ Reference Pain Management Guideline as needed ➤ If patient is still entrapped, compressive force should be removed slowly and in a coordinated fashion ➤ If time and patient condition permits: <ul style="list-style-type: none"> • Apply cardiac monitor to capture rhythm; obtain 12-lead ECG if available
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated as well as to dilute cellular toxins <ul style="list-style-type: none"> • Consider starting fluid resuscitation prior to releasing of the compressive force ➤ Consider contacting the on-call UNM EMS Consortium Physician for fluid plan
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG ➤ Continuously monitor cardiac rhythm ➤ Consider Sodium Bicarbonate if ischemia or crush time greater than 30 minutes <ul style="list-style-type: none"> • Adult Dose: 50 mEq/kg IV/IO • Pediatric Dose: 1 mEq/kg IV/O ➤ Reference Hyperkalemia Guideline ➤ Consider contacting the on-call UNM EMS Consortium Physician for Sodium Bicarbonate/Hyperkalemia plan in crush injury setting

GENERAL	<p style="text-align: center;"><u>EYE INJURIES</u></p> <p style="text-align: center;"><u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ This guideline is intended for treatment of eye pain due to superficial corneal abrasions, chemical exposure, or welders burns
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Assess for obvious trauma to globe or cornea. If found, do not irrigate ➤ Cover both eyes with a loose dry dressing to help decrease eye movement ➤ Do not patch any penetrating or open eye injury. May cover without any pressure on the globe (e.g., with a cup) ➤ For Chemicals or Foreign Bodies: <ul style="list-style-type: none"> • If there is no obvious trauma to the globe, gently flush eyes with sterile water for at least 15 minutes, or until 1 L of sterile water has been instilled • Do not remove contact lenses unless they are torn or broken; if so, treat with irrigation like foreign body • In the case of exposure to law enforcement type chemical agents such as Pepper Spray, transport may not be necessary if eye irritation resolves with irrigation
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated
PARAMEDIC	<ul style="list-style-type: none"> ➤ In absence of penetrating eye injury, Tetracaine Ophthalmic Solution, if available, can be used before irrigation <ul style="list-style-type: none"> • Dose: 2 drops into the affected eye • Tetracaine is contraindicated in the presence of penetrating eye injuries

GENERAL	<p style="text-align: center;"><u>FRACTURED EXTREMITIES</u></p> <p style="text-align: center;">Effective 2/20/2020</p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Major Trauma Guideline as needed ➤ Reference Spinal Motion Restriction Guideline as needed ➤ Reference Pain Management Guideline as needed ➤ If patient is stable or if isolated injury exists, check distal pulses and sensation before and after splinting, and reassess frequently ➤ Splint injuries in position found. If limb must be moved for extrication or transport, gently straighten and splint. Immobilize the joints proximal and distal to the injury ➤ If extremity or joint is severely angulated with NO DISTAL PULSE and/or NO DISTAL SENSATION, gently reduce/straighten to anatomically correct positioning before splinting. Reassess circulation and sensory/motor function
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated

HEAD INJURY – INCREASING INTRACRANIAL PRESSURE

Effective 2/20/2020

GENERAL

- Increased intracranial pressure should be suspected in patients with known or suspected head trauma and any of the following:
 - Altered level of consciousness, especially with repetitive speech patterns or seizures
 - Unequal and/or non-reactive pupils
 - Slowing pulse rate
 - Increasing blood pressure
 - Increasingly irregular respiratory pattern

ALL PROVIDERS

- Reference **Primary Management Guideline**
- Reference **Airway Management Guideline** as needed
 - Avoid advanced airway placement if basic airway maneuvers and/or ventilation are adequate
 - Aggressive advanced airways should only be considered if the airway is failing
- Reference **Altered Mental Status Guideline** as needed
- Reference **Major Trauma Guideline** as needed
- Reference **Spinal Motion Restriction Guideline** as needed
- Cardiac monitor to capture rhythm
- Obtain 12-lead ECG if available/applicable
- Ensure adequate oxygenation to **achieve SpO₂ greater than 94%**
- If BVM ventilation is required, start with the age-appropriate respiratory rate and **titrate to ETCO₂ 35 – 45 mmHg**:
 - **Adult**: 10 breaths per minute
 - **School-age child**: 15 breaths per minute
 - **Toddler**: 20 breaths per minute
 - **Infant**: 30 breaths per minute
- Monitor and document vital signs and Glasgow Coma Scale every 5 minutes

Glasgow Coma Scale						
	1	2	3	4	5	6
Eye Opening	None	To Pressure	To Speech	Spontaneous		
Verbal Response	None	Sounds	Inappropriate words	Confused	Oriented	
Best Motor Response	None	Extension/Decerebrate	Abnormal Flexion/Decorticate	Normal Flexion/Withdrawal	Localizes	Follows commands

GO TO THE NEXT PAGE

INTERMEDIATE	<p style="text-align: center;">CONTINUED FROM THE PREVIOUS PAGE</p> <ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated and/or to achieve minimum goal blood pressure <ul style="list-style-type: none"> • Minimum goal blood pressure for adult patients with <u>isolated</u> head trauma is SBP ≥ 140 mmHg • If an adult patient has <u>multisystem trauma</u>, follow Major Trauma Guideline minimum goal blood pressure of SBP ≥ 90 mmHg • Optimal SBP in pediatric patients with head injury is not defined. Recognize and treat hypotension in this population • Do not attempt to lower the blood pressure for ANY patient with hypertension and head injury
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG; ECG changes can be seen with severe head injury

GENERAL	<p style="text-align: center;"><u>MAJOR TRAUMA</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Traumatic Arrest Guideline as needed ➤ Attempt hemorrhage control with direct pressure <ul style="list-style-type: none"> • If direct pressure is not sufficient to control bleeding, apply tourniquet and/or hemostatic dressing ➤ Reference Airway Management Guideline as needed ➤ Reference Spinal Motion Restriction Guideline as needed ➤ If patient is hypotensive despite hemorrhage control, and if abdominal/pelvic trauma is suspected, apply pelvic binder ➤ If a penetrating object remains in patient, do not remove; stabilize in place ➤ If patient is trapped for an extended period, or if patient is impaled by an object that is too large to transport, consider contacting on-call UNM EMS Consortium Physician ➤ Limit on-scene treatment to life-saving measures only; perform all other treatments enroute to hospital or intercept point ➤ Perform more detailed physical assessment as time allows, after life threats have been addressed and transport has been initiated ➤ Reference Field Trauma Triage Guideline to determine appropriate destination
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated/to achieve goal blood pressure <ul style="list-style-type: none"> • If patient has <u>multisystem trauma</u>, goal blood pressure is SBP ≥ 90 mmHg; slightly lower SBP can be tolerated if patient is fully alert and oriented (evidence of adequate perfusion to the brain) <ul style="list-style-type: none"> ○ <u>Use fluids sparingly</u> if patient is at or above goal blood pressure, or if patient is fully alert and oriented • Minimum goal blood pressure in pediatric patients with multisystem trauma is not defined. Recognize and treat hypotension in this population • Minimum goal blood pressure for patients with <u>isolated</u> head trauma is SBP ≥ 140 mmHg; reference Head Injury – Increasing Intracranial Pressure Guideline if needed
PARAMEDIC	<ul style="list-style-type: none"> ➤ If Advanced Airway procedures are necessary, have low threshold to perform cricothyrotomy; refer to Cricothyrotomy Checklist as needed ➤ For suspected pneumothorax with severe hypotension and respiratory distress, consider Needle Decompression on affected side(s) <ul style="list-style-type: none"> • Preferred site is in the 4th or 5th intercostal space in the mid-axillary line

SEXUAL ASSAULT / RAPE

Effective 2/20/2020

GENERAL

- This guideline is intended to be used in conjunction with appropriate medical and trauma treatment guidelines, based on patient presentation
- Victims of sexual assault should be encouraged to receive a Sexual Assault Exam at an Emergency Department or at the Sexual Assault Nurse Examiner (SANE) Facility
- State law mandates reporting of all suspected child abuse cases; CYFD should be contacted if appropriate

ALL PROVIDERS

- Reference **Primary Management Guideline**
- Reference appropriate medical and trauma treatment guidelines
 - Unless significant uncontrolled bleeding is suspected, genital and perianal exposure and examination should be avoided
- Contact law enforcement; preserve evidence and the scene
- Comfort and reassure the victim
- Minimize the number of EMS Providers having contact with the patient
- Advise the patient against eating, drinking, bathing, smoking, and urinating, if possible
- Transport patient to the appropriate Emergency Department if necessary for medical and/or trauma treatment
- Encourage the patient to wear or at least bring the clothing he or she was wearing at the time of the assault, if possible
- If the patient is otherwise uninjured and does not want or need transport to an Emergency Department, but wants the Sexual Assault Exam and further counseling and information, contact the nearest SANE (Sexual Assault Nurse Examiner) Facility:

City	Phone Number	Physical Location
Albuquerque	505-883-8720	625 Silver SW Suite 2206
Farmington	505-326-4700	622 West Maple Suite F
Santa Fe	505-989-5952	6601 Valentine Way
Taos	575-758-8883	1329 Gusdorf Road
<i>Numbers for SANE facilities elsewhere may be found online</i>		

- Upon calling SANE, inform them that you have an individual who would like to meet with the SANE personnel
- It is preferable that the patient be transported via privately owned vehicle or law enforcement. However, if EMS is the only transport option, the patient should be offered transport, but only if SANE accepts the patient and will have staff on site
- In such cases, the EMS Provider should give a patient report to SANE via phone

GENERAL

SPINAL MOTION RESTRICTION

Effective 2/20/2020

- Spinal motion restriction involves protecting a patient with suspected spinal injury from further spinal injury
- This guideline is to be used in conjunction with the **Major Trauma Guideline** and other trauma guidelines as needed

ALL PROVIDERS

- A **Spinal Assessment** is indicated for patients suspected to have spinal injury, based on mechanism of injury or patient complaint of pain over any part of the spine

SPINAL ASSESSMENT	
Pain, tenderness, or deformity in posterior midline over any vertebra on palpation?	YES/NO
Unexplained/new focal neurologic deficit?	YES/NO
Altered mental status?	YES/NO
Suspected alcohol/drug intoxication?	YES/NO
Painful distracting injury?	YES/NO
Age <3 and/or <u>any other barrier</u> to communication between patient and EMS provider?	YES/NO
If YES to ANY of the above, declare POSITIVE SPINAL ASSESSMENT	
If NO to ALL of the above, declare NEGATIVE SPINAL ASSESSMENT	

- For **Positive Spinal Assessment**:
 - Place C-Collar
 - Assist patient to cot if patient is ambulatory or if they can safely self-extricate
 - If patient is not ambulatory, or if extrication is required, use rigid extrication device as needed to move patient to cot
 - Remove rigid extrication device once patient on cot if possible
 - Head may be supported with head block or similar device to prevent rotation
 - Secure patient with seatbelts in supine position (or in position of comfort if supine position not tolerated)
- For **Negative Spinal Assessment**:
 - Transport in position of comfort
 - Place C-Collar if patient age > 65 even if Spinal Assessment is negative
- No patient shall be transported on a backboard or other rigid extrication device unless removing patient from the device interferes with critical treatments or interventions
 - Exception: patient may be transported with vacuum splint in place
- C-Collar may be removed if interfering with airway or airway placement, or if causing extreme distress
 - Attempts must still be made to limit cervical spine motion (towel roll, etc.), and EMS provider must explain the lack of C-Collar to Emergency Department staff and in the electronic patient report

GENERAL	<p style="text-align: center;"><u>TRAUMATIC CARDIAC ARREST</u> <u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ A patient who is pulseless and apneic after blunt or penetrating trauma has very poor chances of survival if not within minutes of a trauma center ➤ This guideline applies to patients who are pulseless and apneic after blunt or penetrating trauma AND who <u>do not</u> meet Dead at Scene Guideline criteria ➤ <u>Chest compressions are not indicated in traumatic cardiac arrest</u> ➤ If trauma could be secondary to medical cause, reference Adult Cardiac Arrest (Non-Traumatic) Guideline or Pediatric Cardiac Arrest (Non-Traumatic) Guideline
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Open airway ➤ If patient regains pulses and/or respiratory effort, reference Major Trauma Guideline ➤ If patient is still pulseless and apneic after opening airway AND is within 10 minutes of a trauma center, transport urgently to trauma center without delay <ul style="list-style-type: none"> • Any additional treatments shall be performed enroute to the trauma center ➤ If patient is still pulseless and apneic after opening airway and is greater than 10 minutes from a trauma center: <ul style="list-style-type: none"> • If no Paramedic is on scene, declare death • If Paramedic will arrive less than 10 minutes after the first arriving medical provider, consider allowing Paramedic to arrive to perform bilateral needle thoracostomies before considering declaration of death
PARAMEDIC	<ul style="list-style-type: none"> ➤ If unable to open airway with basic maneuvers, have low threshold to perform cricothyrotomy; refer to Cricothyrotomy Checklist as needed ➤ If patient is still pulseless and apneic after opening airway, perform bilateral needle thoracostomies if there is evidence or suspicion of chest trauma <ul style="list-style-type: none"> • Preferred site is in the 4th or 5th intercostal space in the mid-axillary line on affected side • If patient regains pulses and/or respiratory effort, reference Major Trauma Guideline • If patient is still pulseless and apneic, declare death

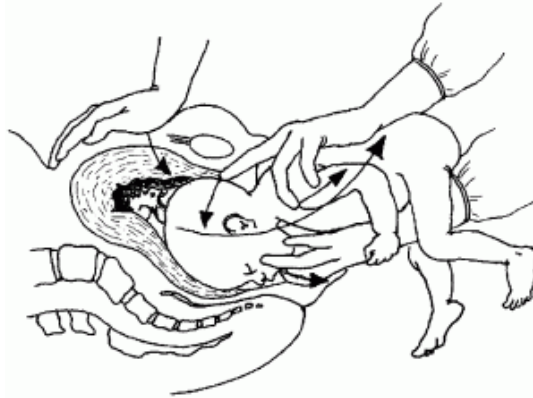
8. OBSTETRICAL / GYNECOLOGICAL GUIDELINES

GENERAL	<div>CHILDBIRTH – ASSISTING WITH A FIELD DELIVERY</div> <div>Effective 2/20/2020</div> <div><div><div></div><div>This guideline is to be used when delivery is imminent, as evidenced by crowning of the fetal head</div></div><div><div></div><div>If a part other than the head is presenting, reference the relevant Childbirth – Abnormal Guideline based on which part is presenting</div></div></div>																													
	<div><div><div></div><div>Reference Primary Management Guideline</div></div><div><div></div><div>Position the mother appropriately, and prepare PPE and OB Kit</div></div><div><div></div><div>Apply gentle counter–pressure to the baby’s head to control emergence of head</div></div><div><div></div><div>The head should turn towards the mother’s left or right; with the mother’s next contraction, gently guide baby’s head downward (toward the mother’s buttocks) to allow delivery of the upper shoulder, and then guide the baby’s body upward (toward the mother’s abdomen) to deliver the lower shoulder. Support infant’s body as it emerges</div></div><div><div></div><div>Check baby for evidence of nuchal cord (umbilical cord wrapped around baby’s neck); if present, reference Childbirth – Abnormal: Wrapped (Nuchal) Cord Guideline</div></div><div><div></div><div>Once fully delivered, <u>note the time of birth</u>, and initiate drying, warming, positioning, and appropriate suctioning of the infant. Clean, dry and wrap baby in clean sheet, towel, or blanket. Cover the baby’s head and place the infant skin-to-skin on mother’s chest. Put the baby to the mother’s breast if she intends to breastfeed</div></div><div><div></div><div>Obtain APGAR assessment score at earliest reasonable opportunity (1 & 5 minutes)</div></div></div> <div><div>Apgar Scoring System</div><table><tr><th colspan="2">Indicator</th><th>0 Points</th><th>1 Point</th><th>2 Points</th></tr><tr><td>A</td><td>Activity (muscle tone)</td><td>Absent</td><td>Flexed limbs</td><td>Active</td></tr><tr><td>P</td><td>Pulse</td><td>Absent</td><td>< 100 BPM</td><td>> 100 BPM</td></tr><tr><td>G</td><td>Grimace (reflex irritability)</td><td>Floppy</td><td>Minimal response to stimulation</td><td>Prompt response to stimulation</td></tr><tr><td>A</td><td>Appearance (skin color)</td><td>Blue/Pale</td><td>Pink body Blue extremities</td><td>Pink</td></tr><tr><td>R</td><td>Respiration</td><td>Absent</td><td>Slow and irregular</td><td>Vigorous cry</td></tr></table><div><div><div></div><div>Gentle bulb suction of nares and mouth for obvious secretions or respiratory difficulty</div></div><div><div></div><div>Reference Neonatal Resuscitation Guideline for any infant who is not vigorous at birth or who experiences respiratory distress</div></div><div><div></div><div>To cut umbilical cord, place a clamp 6 - 7 inches from the baby, and another 9 - 10 inches from the baby, and cut the cord between the clamps</div></div><div><div></div><div>The placenta may take up to 30 minutes to deliver. Apply gentle traction on to the umbilical cord and place one hand above the pubic bone. Gently massage the uterus to help promote delivery of the placenta and decrease maternal hemorrhage</div></div></div></div> <div>GO TO NEXT PAGE</div>	Indicator		0 Points	1 Point	2 Points	A	Activity (muscle tone)	Absent	Flexed limbs	Active	P	Pulse	Absent	< 100 BPM	> 100 BPM	G	Grimace (reflex irritability)	Floppy	Minimal response to stimulation	Prompt response to stimulation	A	Appearance (skin color)	Blue/Pale	Pink body Blue extremities	Pink	R	Respiration	Absent	Slow and irregular
Indicator		0 Points	1 Point	2 Points																										
A	Activity (muscle tone)	Absent	Flexed limbs	Active																										
P	Pulse	Absent	< 100 BPM	> 100 BPM																										
G	Grimace (reflex irritability)	Floppy	Minimal response to stimulation	Prompt response to stimulation																										
A	Appearance (skin color)	Blue/Pale	Pink body Blue extremities	Pink																										
R	Respiration	Absent	Slow and irregular	Vigorous cry																										

INTERMEDIATE	<p style="text-align: center;"><i>CONTINUED FROM PREVIOUS PAGE</i></p> <ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat for persistent hemorrhage, persistent maternal tachycardia, or persistent hypotension
PARAMEDIC	<ul style="list-style-type: none"> ➤ All mothers who deliver in the field should receive Oxytocin to prevent postpartum hemorrhage <ul style="list-style-type: none"> • Initial Dose: 10 units IM within 1 minute of delivery of the infant • If hemorrhage persists despite IM Oxytocin, add 10 units to 1 L of Normal Saline or Lactated Ringers and run wide open

GENERAL	<p style="text-align: center;"><u>CHILDBIRTH – ABNORMAL: BREECH DELIVERY</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ A breech delivery refers to any delivery position in which the head is aftercoming of the fetal buttocks. These are challenging deliveries because the maternal cervix might not dilate sufficiently to permit the head to be delivered
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Consider consulting the on-call UNM EMS Consortium Physician early if needed ➤ Prepare PPE and OB Kit ➤ Position mother by elevating pelvis to facilitate delivery in breech position ➤ Breech deliveries are best managed in a hospital. If known fetal breech position exists but fetus is not actively delivering, position mother on her left side. Ask if she can avoid pushing and breathe through contractions. This may delay birth until she can be transported to an appropriate facility. With long transport time, however, delivery may be imminent and unavoidable ➤ Once the breech delivery begins, the buttocks and lower extremities will often quickly deliver. Support the infant's body, and if the baby's head delivers spontaneously, reference Childbirth – Assisting with a Field Delivery Guideline for immediate postpartum care steps ➤ Once the umbilical cord is visualized, if it is pulled taut, it should be pulled gently down and out of the vagina to create slack for the remainder of the delivery ➤ The shoulders should be delivered one at a time, rotating the baby into a side-facing position to facilitate this ➤ The baby's face will now rotate towards the mother's tailbone ➤ Do NOT pull on baby. Lift body slightly and keep body warm by draping with towels ➤ Have another EMS provider or support person scene apply firm pressure directly above the pubic bone to flex the baby's head down. Advise mother to push hard ➤ If the head does not deliver with application of suprapubic pressure, then perform the Mauriceau Maneuver: <ul style="list-style-type: none"> • While supporting baby's body, place two gloved fingers in a "V" shape on the fetal maxilla, applying enough pressure to tuck and flex the child's head. The maneuver is to tuck--NOT PULL--the head • Place your other hand gently over the occiput to aid in flexion • Instruct mother to push hard while another EMS provider or support person continues to apply suprapubic pressure to promote flexion of the head and assist with the delivery <p style="text-align: center;"><i>GO TO NEXT PAGE</i></p>

CONTINUED FROM PREVIOUS PAGE



Mauriceau Maneuver

- Be prepared for maternal hemorrhage; reference **Childbirth – Postpartum Hemorrhage Guideline** as needed

INTERMEDIATE

- Administer a 10 mL/kg bolus of **Normal Saline or Lactated Ringers** to patients with hemodynamic instability; repeat for persistent hemorrhage, persistent maternal tachycardia, or persistent hypotension

PARAMEDIC

- All mothers who deliver in the field should receive **Oxytocin** to prevent postpartum hemorrhage
 - Initial Dose: 10 units IM within 1 minute of delivery of the infant
 - If hemorrhage persists despite IM Oxytocin, add 10 units to 1 L of **Normal Saline or Lactated Ringers** and run wide open

GENERAL	<p style="text-align: center;"><u>CHILDBIRTH – ABNORMAL: LIMB PRESENTATION</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Limb presentations occur when the fetus is in a transverse lie in the uterus, and the arm or leg protrudes from the vagina. This is seen in less than 1% of deliveries and is most often associated with preterm birth and multiple gestation situations. This is a life-threatening situation for the fetus
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Consider consulting the on-call UNM EMS Consortium Physician early if needed ➤ Place mother in knee-chest position (prone, resting on her knees and upper chest), and secure her as well as possible for transport ➤ Administer high flow Oxygen to the mother ➤ Transport immediately to a hospital with Cesarean section capability

GENERAL	<p style="text-align: center;"><u>CHILDBIRTH – ABNORMAL: PROLAPSED CORD</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Umbilical cord prolapse occurs when the umbilical cord is the initial presenting part, preceding the fetus itself and causing the cord to be compressed between the fetus and the cervix. This deprives the fetus of circulation, and is a potentially fatal complication for the fetus
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Consider consulting the on-call UNM EMS Consortium Physician early if needed ➤ Place mother in knee-chest position (prone, resting on her knees and upper chest) and secure her as well as possible for transport ➤ Administer high flow Oxygen to the mother ➤ Insert a gloved hand into the vagina and elevate the presenting part that is compressing the cord ➤ Once in this position, a pulsating umbilical cord is reassuring. Uterine contractions may be forcing the baby down toward you at regular intervals. Maintain steady pressure to keep the fetal presenting part elevated and off the cord. The EMS provider will often remain in this position until the baby is delivered by Cesarean section at the hospital ➤ Transport immediately to hospital with Cesarean section capability ➤ If the cord protrudes outside of the vagina, wrap it gently in moist dressings

GENERAL	<p style="text-align: center;"><u>CHILDBIRTH – ABNORMAL: SHOULDER DYSTOCIA</u> <u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Shoulder dystocia occurs when the fetal head delivers but the anterior shoulder becomes entrapped beneath the pubic bone, preventing delivery of the rest of the infant. A shoulder dystocia will often become apparent when the head deliver's spontaneously, but then retracts up against the perineum. The anterior shoulder will also not deliver spontaneously despite maternal pushing and gentle guidance of the baby's head downward
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Consider consulting the on-call UNM EMS Consortium Physician early if needed ➤ Position the mother by elevating pelvis off of floor or gurney ➤ Do NOT pull on the baby's head ➤ Administer high-flow Oxygen to mother ➤ Perform McRoberts Maneuver: <ul style="list-style-type: none"> • Have the mother grasp behind her knees and pull her thighs back as if she were trying to put her knees into her armpits. If mother is unable to perform this maneuver, have another EMS provider or on-scene support person assist • Another EMS provider or on-scene support person should then position themselves alongside the mother opposite the side the baby is facing and apply firm pressure straight downwards just above the mother's pubic bone • With both of these maneuvers applied, have the mother push <u>hard</u>. The provider attending to the fetus should guide the head downward with a gentle pressure, <u>but do not stress the neck</u> • If the shoulder is released, be prepared for a quick delivery ➤ If McRoberts maneuver is unsuccessful, attempt Gaskin Maneuver: <ul style="list-style-type: none"> • Assist mother onto her hands and knees • Grasp the fetal head, and gently guide it downward attempting to deliver the posterior shoulder (which is now uppermost) • Repeat the above maneuvers as needed while initiating rapid transport • If delivery is accomplished, the baby will often need aggressive resuscitation. Reference Neonatal Resuscitation Guideline as needed • Prepare for significant postpartum bleeding. Reference Postpartum Hemorrhage Guideline as needed <p style="text-align: center;">GO TO NEXT PAGE</p>

INTERMEDIATE	<p style="text-align: center;">CONTINUED FROM PREVIOUS PAGE</p> <p>➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat for persistent hemorrhage, persistent maternal tachycardia, or persistent hypotension</p>
PARAMEDIC	<p>➤ All mothers who deliver in the field should receive Oxytocin to prevent postpartum hemorrhage</p> <ul style="list-style-type: none"> • Initial Dose: 10 units IM within 1 minute of delivery of the infant • If hemorrhage persists despite IM Oxytocin, add 10 units to 1 L of Normal Saline or Lactated Ringers and run wide open

GENERAL	<p style="text-align: center;"><u>CHILDBIRTH – ABNORMAL: WRAPPED (NUCHAL) CORD</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ A nuchal cord is present when the umbilical cord is wrapped 360 degrees around an infant's neck at delivery. A nuchal cord may be of minimal clinical significance, but if wrapped tightly, a nuchal cord can compromise fetal circulation. Nuchal cord is present in 10 - 30% of deliveries ➤ This guideline is to be used in conjunction with the Childbirth – Assisting With A Field Delivery Guideline if a nuchal cord is discovered during delivery
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ As soon as possible during delivery of the head, check for a nuchal umbilical cord. If present, slip it over the head <ul style="list-style-type: none"> • If it is too tight to do this, quickly but carefully place two umbilical clamps about 2 inches apart and cut the cord between the clamps <ul style="list-style-type: none"> ○ If a nuchal cord is cut, the baby's only supply of oxygen is cut off. The remainder of the delivery must take place as quickly as possible
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat for persistent hemorrhage, persistent maternal tachycardia, or persistent hypotension
PARAMEDIC	<ul style="list-style-type: none"> ➤ All mothers who deliver in the field should receive Oxytocin to prevent postpartum hemorrhage <ul style="list-style-type: none"> • Initial Dose: 10 units IM within 1 minute of delivery of the infant • If hemorrhage persists despite IM Oxytocin, add 10 units to 1 L of Normal Saline or Lactated Ringers and run wide open

GENERAL	<p style="text-align: center;"><u>CHILDBIRTH – POSTPARTUM HEMORRHAGE</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Postpartum hemorrhage is the loss of more than 500 mL of blood immediately following vaginal delivery, occurring in about 5% of deliveries. Steps that can be taken during and immediately following delivery that may decrease the risk of postpartum hemorrhage include: <ul style="list-style-type: none"> • Controlled delivery of the head • Administration of Oxytocin within 1 minute of delivery • Controlled, gentle umbilical cord traction until placenta delivers • Firm massage of the uterus after the placenta delivers
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ If perineal lacerations are present, apply direct pressure to perineum with sterile dressings. Do not place dressings inside the vagina ➤ Firmly massage the uterine fundus ➤ Put baby to breast as this may help the uterus contract ➤ Administer high-flow Oxygen to the mother via non-rebreather mask
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat for persistent hemorrhage, persistent maternal tachycardia, or persistent hypotension
PARAMEDIC	<ul style="list-style-type: none"> ➤ Administer Oxytocin <ul style="list-style-type: none"> • Initial Dose: 10 units IM within 1 minute of delivery of the infant • If hemorrhage persists despite IM Oxytocin, add 10 units to 1 L of Normal Saline or Lactated Ringers and run wide open

GENERAL	<p style="text-align: center;"><u>PREECLAMPSIA</u></p> <p style="text-align: center;"><u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ Preeclampsia is a hypertensive disorder of pregnancy and is a major cause of both maternal and fetal morbidity and mortality ➤ Preeclampsia develops after 20 weeks' gestation and can occur up to six weeks postpartum ➤ Preeclampsia is defined as a sustained BP of 140/90 mm Hg or higher for two or more measurements at least 4 hours apart in a patient who is at or beyond 20 weeks' gestation ➤ EMS definition of Severe Preeclampsia: <ul style="list-style-type: none"> • Two or more blood pressures of SBP >160 mm Hg and/or DBP >110 mm Hg over 15 minutes in a patient who is at or beyond 20 weeks' gestation <u>OR</u> • Elevated blood pressure with any of these accompanying clinical symptoms: <ul style="list-style-type: none"> ○ Severe headache ○ Blurred vision ○ Right upper quadrant or epigastric abdominal pain
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ If patient begins seizing, reference Eclampsia Guideline ➤ Apply high-flow Oxygen via non-rebreather mask ➤ Cardiac monitor to capture rhythm ➤ Obtain 12-lead ECG, if available
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Initiate an IV/IO for medication administration
PARAMEDIC	<ul style="list-style-type: none"> ➤ If patient meets EMS Definition of Severe Preeclampsia, administer Magnesium Sulfate 4 grams IV/IO infusion, <u>administer over 10 minutes</u>, followed by an IV/IO infusion of 2 grams per hour <ul style="list-style-type: none"> • Magnesium Sulfate should be administered via infusion pump; reference Infusion Pump Guideline

GENERAL	<p style="text-align: center;"><u>ECLAMPSIA</u></p> <p style="text-align: center;"><u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ Eclampsia occurs when a patient with preeclampsia progresses to seizures ➤ Some patients will progress directly into coma without an observed seizure ➤ Most patients who develop eclampsia show marked edema, increased BP and other features of severe pre-eclampsia <u>but up to 30% of eclampsia patients do not have these classic signs and symptoms</u>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline ➤ Cardiac monitor to capture rhythm; obtain 12-lead ECG if available
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Initiate an IV/IO for medication administration
PARAMEDIC	<ul style="list-style-type: none"> ➤ Magnesium Sulfate 4 grams IV/IO infusion, <u>administer over 10 minutes</u>, followed by an IV/IO infusion at a rate of 2 grams per hour <ul style="list-style-type: none"> ○ Magnesium Sulfate should be administered via infusion pump; reference Infusion Pump Guideline ○ If seizures continue despite administration of Magnesium Sulfate, reference Seizures/Convulsions Guideline

9. PEDIATRIC-SPECIFIC GUIDELINES

GENERAL	<p style="text-align: center;"><u>PEDIATRIC CARDIAC ARREST (NON-TRAUMATIC)</u></p> <p style="text-align: center;"><u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ Most pediatric cardiac arrests are secondary to respiratory arrest. Prioritize oxygenation/ventilation is soon as possible after CPR is initiated
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ If patient is pulseless, or if patient has a pulse of < 60 bpm <u>and</u> signs of poor perfusion, initiate prompt chest compressions at a rate of 100-120 per minute ➤ Minimize CPR interruptions is much as possible ➤ Reference Airway Management Guideline ➤ Ventilate patient at 20-30 breaths per minute (once every 2-3 seconds) ➤ Apply AED or manual defibrillator with pediatric defibrillator pads promptly and – if indicated – defibrillate as soon as possible <ul style="list-style-type: none"> • If pediatric defibrillator pads are not available, adult defibrillator pads may be used ➤ Continue pattern of “2 minutes of CPR – Pulse/Rhythm Check – Defibrillate as Indicated” until ROSC is achieved or resuscitation is terminated ➤ If mechanical CPR device that is manufacturer approved for use on pediatric patients is/becomes available, and is appropriately sized for the patient, apply at next pulse check with minimal interruptions in compressions ➤ Reference Primary Management Guideline ➤ If mechanical ventilator is/becomes available, reference Mechanical Ventilation Guideline ➤ If ROSC occurs, reference Return of Spontaneous Circulation Guideline ➤ Reference Termination of Resuscitation Guideline if ROSC has not occurred after 30 minutes or if resuscitation otherwise appears futile ➤ Specific medication dosing is outlined below, but utilize size-based resuscitation tape for most accurate dosing
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Epinephrine 0.1 mg/mL (OLD NAME 1:10,000): 0.01 mg/kg (0.1 mL/kg) up to maximum of 1 mg per dose IV/IO every 3 - 5 minutes ➤ Administer 20 mL/kg Normal Saline or Lactated Ringers bolus <p style="text-align: center;">GO TO NEXT PAGE</p>

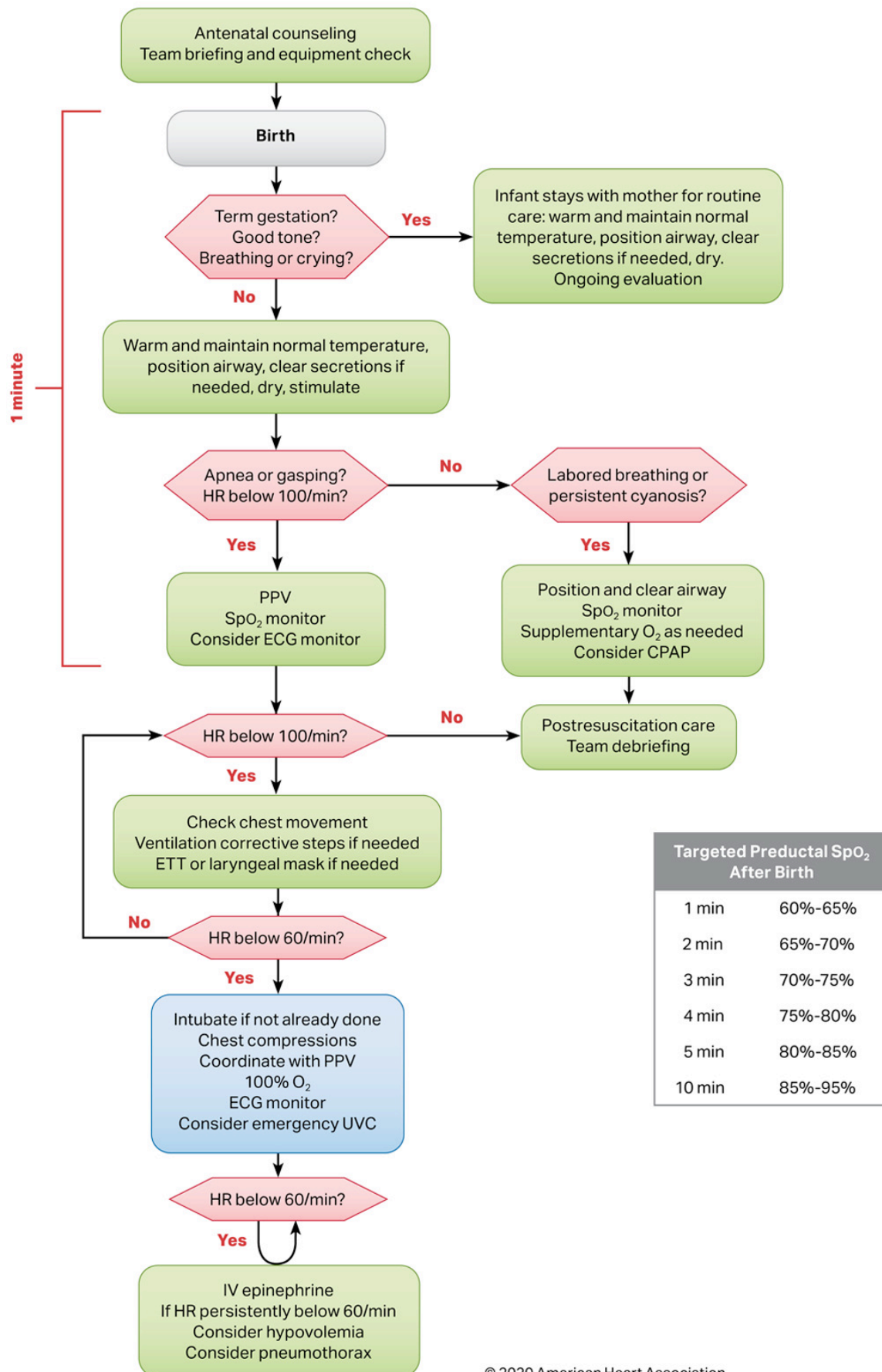
CONTINUED FROM PREVIOUS PAGE

PARAMEDIC

- If defibrillation is indicated, defibrillate first at 2 Joules/kg
 - Additional defibrillation – if indicated – shall be at 4 Joules/kg
- Additional medications may be administered for specific observed dysrhythmias:
 - **Monomorphic ventricular tachycardia or ventricular fibrillation:**
 - **Lidocaine** 1 mg/kg IV/IO to a maximum total dose of 100 mg; single dose only
 - OR**
 - **Amiodarone** 5 mg/kg IV/IO to a maximum total dose of 300 mg; may repeat to a total of 3 doses for refractory VT/VF
 - **Torsades de pointes or polymorphic ventricular tachycardia:**
 - **Magnesium Sulfate** 50 mg/kg IV/IO to a maximum total dose of 2 grams, administer over 4 minutes
 - **Known or suspected hyperkalemia, renal failure, or hypocalcemia:**
 - **Calcium Chloride:** 20 mg/kg IV/IO up to maximum dose of 1 gram
 - OR**
 - **Calcium Gluconate:** 60 mg/kg IV/IO up to maximum dose of 3 grams

GENERAL	<p style="text-align: center;"><u>NEONATAL RESUSCITATION</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ These resuscitation guidelines are designed to help resuscitate a newly born patient who experiences cardiopulmonary compromise in the immediate post-birth transition
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline ➤ After neonate is delivered, gently dry and stimulate the infant. If secretions are present or if the neonate exhibits respiratory distress or apnea, gently clear nose and mouth of secretions using a bulb syringe ➤ Within 30 seconds of delivery, assess the infant's heart rate and respiratory effort <ul style="list-style-type: none"> • If heart rate is less than 100 beats per minute; if the neonate is apneic or gasping, begin administering ventilations with a BVM fitted with a properly-sized infant mask at a rate of 40 to 60 breaths per minute • Reassess heart rate and respiratory effort after 1 minute of ventilations <ul style="list-style-type: none"> ○ If heart rate increases to above 100 beats per minute AND the neonate appears vigorous with adequate respiratory effort, stop ventilations ○ If heart rate remains less than 100 beats per minute, recheck airway, and continue providing ventilations. Consider inserting a basic airway device ➤ If at any point the neonate's heart rate is less than 60 beats per minute, begin compressions coordinated with ventilations at a ratio of 3 compressions to 1 ventilation, with a goal of delivering 30 breaths and 90 compressions in 1 minute ➤ If the heart rate increases to above 60 beats per minute, discontinue compressions ➤ If ROSC occurs, reference Return of Spontaneous Circulation Guideline ➤ Reference Termination of Resuscitation Guideline if ROSC has not occurred after 30 minutes or if resuscitation otherwise appears futile ➤ DO NOT administer Naloxone to newly born babies
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Obtain blood glucose level if the neonate has diminished mental status despite adequate respiratory effort and a heart rate above 100 beats per minute <ul style="list-style-type: none"> • If less than 40 mg/dL, Dextrose 10% 2.5 mL/kg slow IV push
PARAMEDIC	<ul style="list-style-type: none"> ➤ Administer medications ONLY if chest compressions and positive pressure ventilation with 100% Oxygen do not raise the neonate's heart rate to greater than 60 beats per minute <ul style="list-style-type: none"> • Epinephrine 0.1 mg/mL (OLD NAME: 1:10,000): 0.01 mg/kg IV/IO every 3-5 minutes

Neonatal Resuscitation Algorithm



© 2020 American Heart Association

FOR UNM EMS CONSORTIUM CALL 505-449-5710

GENERAL	<p align="center"><u>PEDIATRIC NARROW COMPLEX TACHYCARDIA</u></p> <p align="center">Revised 2/15/2021</p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Provide supplemental Oxygen for SpO2 less than 94% ➤ Cardiac monitor to capture rhythm; obtain 12-lead ECG if available ➤ Consider underlying causes of narrow complex tachycardia <ul style="list-style-type: none"> • Acute medical illness • Hypoxia • Stimulant intoxication • Electrolyte abnormalities ➤ Utilize size-based resuscitation tape for most accurate dosing ➤ Cardiac monitor to capture rhythm; obtain 12-lead ECG if available
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer 20 mL/kg Normal Saline or Lactated Ringers bolus
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG ➤ For STABLE patient: <ul style="list-style-type: none"> • Attempt vagal maneuvers • Consider modified Valsalva maneuver <ul style="list-style-type: none"> ○ If patient is able to follow instructions adequately, have them blow through a straw or syringe for 15 seconds, then immediately place patient supine and elevate the legs ➤ For UNSTABLE patient, showing signs and symptoms of poor perfusion <ul style="list-style-type: none"> • Adenosine 0.1 mg/kg IV/IO up to a maximum single dose of 6 mg followed by rapid 5 - 10 mL Normal Saline flush • If no change in rhythm, Adenosine 0.2 mg/kg IV/IO up to a maximum single dose of 12 mg followed by rapid 5 - 10 mL Normal Saline flush. This dosing of adenosine may be administered a total of two times • If no response, or if no IV/IO access, consider Synchronized Biphasic cardioversion at 1 Joule/kg (Lifepak and Zoll) <ul style="list-style-type: none"> ○ If unsuccessful, repeat synchronized cardioversion at 2 Joules/kg ○ Third and further attempts at cardioversion should be performed at 2 Joules/kg ○ Consider Pain Management Guideline if patient condition permits

GENERAL	<p align="center"><u>PEDIATRIC WIDE COMPLEX TACHYCARDIA WITH A PULSE</u></p> <p align="center">Revised 2/15/2021</p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline ➤ Reference Ingestion/Poisoning Guideline ➤ Reference Hyperkalemia Guideline ➤ Consider underlying causes of wide complex tachycardia <ul style="list-style-type: none"> • Electrolyte abnormality • Toxic exposure • Medication overdose • Primary cardiac dysrhythmia ➤ Utilize size-based resuscitation tape for most accurate dosing ➤ Cardiac monitor to capture rhythm; obtain 12-lead ECG if available
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer 20 mL/kg Normal Saline or Lactated Ringers bolus
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG ➤ For STABLE patient: <ul style="list-style-type: none"> • Observe closely during transport for signs of decompensation ➤ For UNSTABLE patient, showing signs and symptoms of poor perfusion: <ul style="list-style-type: none"> • Perform Synchronized Biphasic cardioversion at 1 Joule/kg (Lifepak and Zoll) <ul style="list-style-type: none"> ○ If unsuccessful, repeat synchronized cardioversion at 2 Joules/kg ○ Third and further attempts at cardioversion should be performed at 2 Joules/kg ○ Consider Pain Management Guideline if patient condition permits

GENERAL	<p style="text-align: center;"><u>PEDIATRIC BRADYCARDIA</u></p> <p style="text-align: center;"><u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ The underlying cause of pediatric bradycardia is almost always inadequate ventilation or oxygenation. Managing these conditions will likely improve patient's heart rate
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline ➤ Reference Pediatric Respiratory Distress Guideline ➤ If patient's heart rate is less than 60 beats per minute with signs of poor perfusion despite efforts to improve oxygenation and ventilation, begin chest compressions at 100-120 per minute and continue oxygenation and ventilation with BVM at appropriate rate for patient's age ➤ If patient's heart rate is greater than 60 beats per minute but respiratory effort is inadequate, initiate ventilations with BVM at appropriate rate for patient's age ➤ Cardiac monitor to capture rhythm; obtain 12-lead ECG if available
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer 20 mL/kg Normal Saline or Lactated Ringers bolus
PARAMEDIC	<ul style="list-style-type: none"> ➤ Epinephrine 0.1 mg/mL (OLD NAME: 1:10,000): 0.01 mg/kg (0.1 mL/kg) up to maximum of 1 mg per dose IV/IO every 3 - 5 minutes <ul style="list-style-type: none"> • If persistent bradycardia, consider Atropine 0.02 mg/kg per dose, with minimum single dose of 0.1 mg and a maximum single dose of 0.5 mg. Atropine administration may be repeated one time ➤ Interpret 12-lead ECG

GENERAL	<p style="text-align: center;"><u>BRIEF RESOLVED UNEXPLAINED EVENT (BRUE)</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ A BRUE is an episode that is frightening to the parent or EMS provider and that is characterized by some combination of the following observations: <ul style="list-style-type: none"> • Absent, decreased, or irregular breathing • Cyanosis or pallor • Marked change in muscle tone (unexplained rigidity or flaccidity) • Altered level of consciousness ➤ In some cases, the observer fears the infant has died, and initiates CPR ➤ There are many potential causes of BRUE including viral illnesses, gastroesophageal reflux, urinary tract infection, metabolic disorders, cardiac dysrhythmias, seizures, sepsis, and child abuse. <u>Often, no cause will ever be identified</u> ➤ The majority of infants who have experienced a BRUE will have returned to baseline and appear to be in no acute distress when evaluated by EMS personnel. Therefore, the signs and symptoms noted by the parent/guardian should be considered credible – even when they do not match the observations of EMS providers
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Altered Mental Status Guideline ➤ Reference Pediatric Respiratory Distress Guideline as needed ➤ Reference Seizure/Convulsions Guideline as needed ➤ Reference Fever Guideline as needed ➤ Reference Trauma Guidelines as needed ➤ Parents/guardians should be strongly encouraged to allow EMS to transport the patient to an appropriate facility. If parent/guardian refuses EMS transport, consult the on-call UNM EMS Consortium Physician due to high risk nature of a refusal in this clinical scenario

GENERAL	<p style="text-align: center;"><u>PEDIATRIC RESPIRATORY DISTRESS</u></p> <p style="text-align: center;"><u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ Pediatric patients may develop respiratory distress for a variety of reasons ➤ Commonly, respiratory distress results from a viral or bacterial infection ➤ Other causes of respiratory distress include airway obstruction from foreign bodies, anaphylaxis, and asthma/reactive airway disease ➤ It is not necessarily important in the prehospital setting to identify the exact cause of the patient's respiratory distress; but rather, to appropriately treat the patient's symptoms, ensure adequate oxygenation and ventilation, and decrease patient's work of breathing
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Airway Management Guideline ➤ Reference Foreign Body Airway Obstruction Guideline as needed ➤ Reference Allergic Reaction and Anaphylaxis Guideline as needed ➤ Reference Altered Mental Status Guideline as needed ➤ Reference Continuous Positive Airway Pressure (CPAP) Checklist if patient's face will fit appropriately into mask ➤ Allow patient to assume a position of comfort ➤ Apply Oxygen to achieve SpO₂ of >94% ➤ Apply continuous EtCO₂ monitoring if available ➤ If stridor is present, administer nebulized saline if tolerated by patient ➤ If wheezing is present: <ul style="list-style-type: none"> • In a patient 2 years of age or older, administer Albuterol 5 mg nebulized, repeat if wheezing persists <ul style="list-style-type: none"> ○ If patient is unable to hold nebulizer, attach to NRB mask or BVM to assist • In a patient younger than 2 years of age, gently suction nares with a bulb syringe
BASIC	<ul style="list-style-type: none"> ➤ Wheezing Present: <ul style="list-style-type: none"> • In a patient 2 years of age or older, add Ipratropium bromide 0.5 mg nebulized to first or second dose of Albuterol. This nebulized combination may be administered up to 3 times ➤ If work of breathing is considerable and anaphylaxis or severe asthma exacerbation is suspected: <ul style="list-style-type: none"> • Epinephrine 1 mg/mL (OLD NAME: 1:1,000) 0.01 mg/kg IM using a premeasured 0.3 mL TB syringe up to a maximum dose of 0.3 mg <p style="text-align: center;"><i>GO TO NEXT PAGE</i></p>

CONTINUED FROM PREVIOUS PAGE

INTERMEDIATE

- Consider **Diphenhydramine** if patient has systemic symptoms
 - **Pediatric Dose:** 1 mg/kg IV/IM/IO up to maximum dose of 50 mg
- Consider **Dexamethasone** or **Methylprednisolone** (choose one) if severe systemic symptoms and/or if Epinephrine has been administered
 - **Dexamethasone**
 - **Pediatric Dose:** 0.6 mg/kg IV/IM/IO/PO up to maximum dose of 10mg; if IV/IO, slow push over 2 minutes
 - **Methylprednisolone**
 - **Pediatric Dose:** 1 mg/kg IV/IM/IO
- Administer a 10 mL/kg bolus of **Normal Saline** or **Lactated Ringers** to patients with hemodynamic instability; repeat as clinically indicated

PARAMEDIC

- For patients with persistent wheezing or poor air movement, or who are in shock:
 - Reference **Infusion Pump Guideline**
 - **Magnesium Sulfate** 50 mg/kg IV/IO infusion, administer over 10 minutes, up to a maximum of 2 grams over 10 minutes
- Consider **Epinephrine Drip** and/or **Nebulized Epinephrine** for worsening distress and/or impending respiratory FAILURE
 - **Epinephrine Drip** 0.1 – 1 mcg/kg/minute IV/IO; titrate MAP to age
 - **Nebulized Epinephrine**
 - Add 1 mg of **Epinephrine 1 mg/mL (OLD NAME 1:1000)** to 3 mL NS and administer via nebulizer
 - Repeat after 20 minutes if the patient did not significantly improve after the first administration

10. ENVIRONMENTAL GUIDELINES

GENERAL	<p style="text-align: center;"><u>ACUTE MOUNTAIN SICKNESS (AMS)</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ AMS is a constellation of symptoms experienced by persons at altitude, typically noted at elevations above 8000 feet (2438 meters). Affected individuals may experience headache, fatigue, nausea, vomiting, dizziness, and sleep disturbances. More severe forms of altitude-related illness include the following life-threatening conditions: <ul style="list-style-type: none"> • High Altitude Pulmonary Edema (HAPE) – Caused by hypoxic vasoconstriction with extracellular fluid shifts within the lungs. Signs and symptoms include: dyspnea, hypoxia, cyanosis, cough, rales or rhonchi, exhaustion, and frothy or blood-tinged sputum • High Altitude Cerebral Edema (HACE) – Caused by fluid redistribution resulting in cerebral edema, possibly vasogenic, though likely is multi-factorial. Signs and symptoms include headache, nausea, vomiting, altered mental status, ataxia, and syncope ➤ Primary treatment for these conditions is descent to lower altitude if possible
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Respiratory Distress Guideline ➤ Reference Continuous Positive Airway Pressure (CPAP) Checklist ➤ Descend to a lower altitude if possible ➤ Allow patient to assume a position of comfort ➤ If AMS is suspected, apply supplemental Oxygen to achieve an oxygen saturation of greater than 94% ➤ If HAPE or HACE is suspected: <ul style="list-style-type: none"> • Apply high-flow Oxygen via non-rebreather mask • Consider consulting the on-call UNM EMS Consortium Physician ➤ Cardiac monitor to capture rhythm; obtain 12-lead ECG if available
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG

GENERAL	<p style="text-align: center;"><u>BITES: ANIMALS / HUMANS / INSECTS</u></p> <p style="text-align: center;"><u>Revised 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ Animal/Insect Bite: Animal bites, except in rare instances, are not life or limb threatening. More limbs are endangered because of inappropriate treatment than from the bite injury itself ➤ Human Bite: All human bites should be evaluated in an Emergency Department because of the high risk for infection ➤ DO NOT bring the animal to the hospital with the patient
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Allergic Reaction and Anaphylaxis Guideline as needed ➤ Reference Respiratory Distress Guideline as needed ➤ Reference Pain Management Guideline as needed ➤ Control bleeding with application of direct pressure ➤ Remove constrictive clothing and jewelry ➤ Flush wound with sterile water, saline, or clean running water ➤ If applicable, notify receiving hospital early to ensure anti-venom is available
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated
PARAMEDIC	<ul style="list-style-type: none"> ➤ If the patient was bitten by a Black Widow spider and severe signs and symptoms are present: <ul style="list-style-type: none"> • Midazolam <ul style="list-style-type: none"> ○ Adult Dose: 10 mg IM/IN; 5 mg IV/IO; may repeat every 10 minutes as needed ○ Pediatric Dose: 0.2 mg/kg IM/IN, up to maximum dose of 10 mg; 0.1 mg/kg IV/IO, up to maximum dose of 5 mg; may repeat every 10 minutes as needed
NOTES	<ul style="list-style-type: none"> ➤ NEW MEXICO POISON CENTER: 1-800-222-1222 or 1-505-272-2222 ➤ Consider calling Poison Center for assistance with bites and stings from venomous insects or spiders

GENERAL	<p style="text-align: center;"><u>BITES: SNAKES</u></p> <p style="text-align: center;"><u>Effective 2/15/2021</u></p> <ul style="list-style-type: none"> ➤ More limbs are lost because of inappropriate treatment than from snake bite injuries themselves ➤ DO NOT apply ice, tourniquets, or attempt to aspirate venom from the bite ➤ DO NOT bring the snake with the patient to the hospital
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Allergic Reaction and Anaphylaxis Guideline as needed ➤ Reference Respiratory Distress Guideline as needed ➤ Reference Pain Management Guideline as needed <ul style="list-style-type: none"> • EXCEPTION: DO NOT use Ibuprofen or Ketorolac ➤ Control bleeding with application of direct pressure ➤ Remove constrictive clothing and jewelry ➤ Flush wound with sterile water, saline, or clean running water ➤ If possible, take photos of the wound at 15-minute intervals to track wound progression ➤ Notify receiving hospital early to ensure anti-venom is available ➤ Maintain bitten extremity in neutral position at the level of the heart ➤ Keep patient as still as possible – an increase in heart rate can speed up the rate at which venom spreads
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated
NOTES	<ul style="list-style-type: none"> ➤ NEW MEXICO POISON CENTER: 1-800-222-1222 or 1-505-272-2222 ➤ Consider calling Poison Center for assistance with bites from venomous snakes

GENERAL	<p style="text-align: center;"><u>FROSTBITE</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Frostbite is a freezing injury of the skin and soft tissue. Frostbite can occur at varying depths of skin and soft tissue. Often the depth and severity of the tissue injury is not immediately apparent
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Hypothermia Guideline as needed ➤ Remove victim from cold environment ➤ Remove any wet/cold clothing, and remove any constrictive clothing or jewelry ➤ Cover affected areas with dry sterile dressings and protect from further injury. Separate frostbitten digits from one another ➤ Do not rewarm frostbitten tissue if there is any chance the tissue will refreeze <ul style="list-style-type: none"> • Rewarming may be best accomplished in the hospital setting ➤ Do not massage the tissue, apply ointments, or break any blisters that may be forming ➤ Reference Pain Management Guideline
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Weigh the decision to administer IV fluids carefully, especially if patient is hypothermic <ul style="list-style-type: none"> • Most moderately and severely hypothermic patients will have hypotension, and the presence of hypotension in this patient population does not mandate IV fluid bolus administration. It is very difficult to warm IV fluids in the field; IV fluids can easily make the patient's core temperature drop further

GENERAL	<p style="text-align: center;"><u>HEAT RELATED EMERGENCIES</u></p> <p style="text-align: center;">Effective 2/20/2020</p>
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Reference Altered Mental Status Guideline as needed ➤ Reference Seizures/Convulsions Guideline as needed ➤ Reference Nausea Guideline as needed ➤ Cardiac monitor to capture rhythm ➤ Obtain 12-lead ECG if available ➤ Initiate Cooling measures: <ul style="list-style-type: none"> • Remove patient from hot environment • Mist patient with cool water and place patient near a fan or other moving air source • Soak sheets, towels, or dressings in cool water and apply patient's body • Apply cold packs (wrapped to prevent frostbite) under patient's arms, around neck and head, and on palms of hands and soles of feet • If patient is alert and without nausea, encourage oral rehydration ➤ If environmental conditions do not suggest hyperthermia as likely cause for patient's symptoms, or if infectious symptoms are present, reference Fever Guideline ➤ Cardiac monitor to capture rhythm ➤ Obtain 12-lead ECG if available
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Administer a 10 mL/kg bolus of Normal Saline or Lactated Ringers to patients with hemodynamic instability; repeat as clinically indicated
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG

GENERAL	<p style="text-align: center;"><u>HYPOTHERMIA</u></p> <p style="text-align: center;"><u>Effective 2/20/2020</u></p> <ul style="list-style-type: none"> ➤ Core temperature measurements in the prehospital setting are difficult to obtain and are unreliable. Treatment of hypothermia should be based on the presence of signs and symptoms of impaired physiologic function in environmental conditions that support the possibility of hypothermia ➤ Hypothermic patients may be tachycardic in the early stages of the condition, but as the patient's core temperature continues to fall, progressive bradycardia and hypotension will develop
ALL PROVIDERS	<ul style="list-style-type: none"> ➤ Reference Primary Management Guideline ➤ Handle the hypothermic patient gently; rough handling may precipitate ventricular fibrillation ➤ Remove victim from cold environment ➤ Remove any wet/cold clothing ➤ In the unconscious patient, check for pulse for one full minute. If <u>any</u> pulse is detected, do not perform CPR ➤ If no pulse is detected, reference Cardiac Arrest – Hypothermia Guideline ➤ Cardiac monitor to capture rhythm ➤ Obtain 12-lead ECG if available ➤ Perform active external rewarming by covering patient with warm blankets, and applying heat packs to patient's chest, axillae, groin, and neck. Ensure heat packs do not burn the patient
INTERMEDIATE	<ul style="list-style-type: none"> ➤ Weigh the decision to administer IV fluids carefully, especially if patient is hypothermic <ul style="list-style-type: none"> • Most moderately and severely hypothermic patients will have hypotension, and the presence of hypotension in this patient population does not mandate IV fluid bolus administration. It is very difficult to warm IV fluids in the field; IV fluids can easily make the patient's core temperature drop further
PARAMEDIC	<ul style="list-style-type: none"> ➤ Interpret 12-lead ECG

APPENDIX A: MCI INFORMATION

Effective 2/20/2020

GENERAL

MULTI-CASUALTY INCIDENT (MCI)

- This guideline provides organization and structure for managing emergencies that result in multiple patient injuries, illnesses, or deaths, regardless of the cause
- Implementation of the procedures detailed here is directed toward the goal of yielding the largest number of survivors while providing for responder and community safety, accountability, welfare and environmental concerns
- This document provides specific guidance for an MCI and uses the NIMS Incident Command System (ICS) as required by the State of New Mexico

Definitions:

- **System-Level MCI:**
 - An incident that taxes the immediate area EMS system
- **Low-Level MCI:**
 - An incident with 4 - 12 patients, of which 5 or fewer are Red Tag (critical) patients
- **High-Level MCI:**
 - An incident with more than 12 patients, or more than 5 Red Tag (critical) patients
- **Disaster**
 - An incident with more than 100 patients that requires request of state and federal resources

Procedures:

- **Scene Size Up:**
 - The first unit on scene will commit to the following actions (DO NOT BEGIN TREATMENT):
 - Assume Incident Command, establish ICS and confirm that an MCI exists
 - Ensure dispatch notifies and dispatches the agency supervisor/command staff, as per agency and local policies/agreements
 - Rapidly assess the incident
 - Estimate the number of patients
 - Determine the need for additional EMS resources
 - Determine the need for mutual aid assistance

GO TO NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

➤ **Assignment of Officers:**

- The Incident Commander (IC) may assign the following positions as needed:
 - Triage Officer
 - Staging Officer
 - Public Information Officer (PIO)
 - Treatment Officer
 - Transport Officer
 - Extrication Officer
 - Rehabilitation Officer

➤ **Notification of Hospitals:**

- The Incident Commander (or designee) or dispatch will utilize EMResource to make proper notifications as soon as possible
 - EMResource allows receiving facilities to convey how many patients they can accept. Creating an EMResource alert for the incident also notifies receiving hospitals if the MCI Distribution Plan has been enacted, and establishes that facilities will be receiving injured patients according to that Plan
 - EMResource activation is a **REQUIRED** step in the MCI guideline. This prepares the hospital but also alerts other agencies of the situation. Also, in the event of multiple MCIs occurring simultaneously within a region, it is essential for resource allocation
- The Transport Officer shall coordinate transport destination(s) based on the MCI Distribution Plan appropriate for the incident location
- Hospitals shall be notified of number and acuity of incoming patients by the transport officer, either directly by Med Channel or phone
 - Transporting units should not be making individual radio reports in a declared MCI
 - Hospitals cannot divert transporting units in a declared/bannered MCI; transporting units shall disregard divert requests unless instructed otherwise by the Transport Officer

➤ **Role of agency EMS Medical Director and UNM EMS Consortium Physicians:**

- The on-call UNM EMS Consortium Physician as well as the agency EMS Medical Director shall be notified of all High-Level MCIs as soon as possible
 - If EMS Physicians arrive on scene, they shall fall into the appropriate ICS function as determined by the Incident Commander

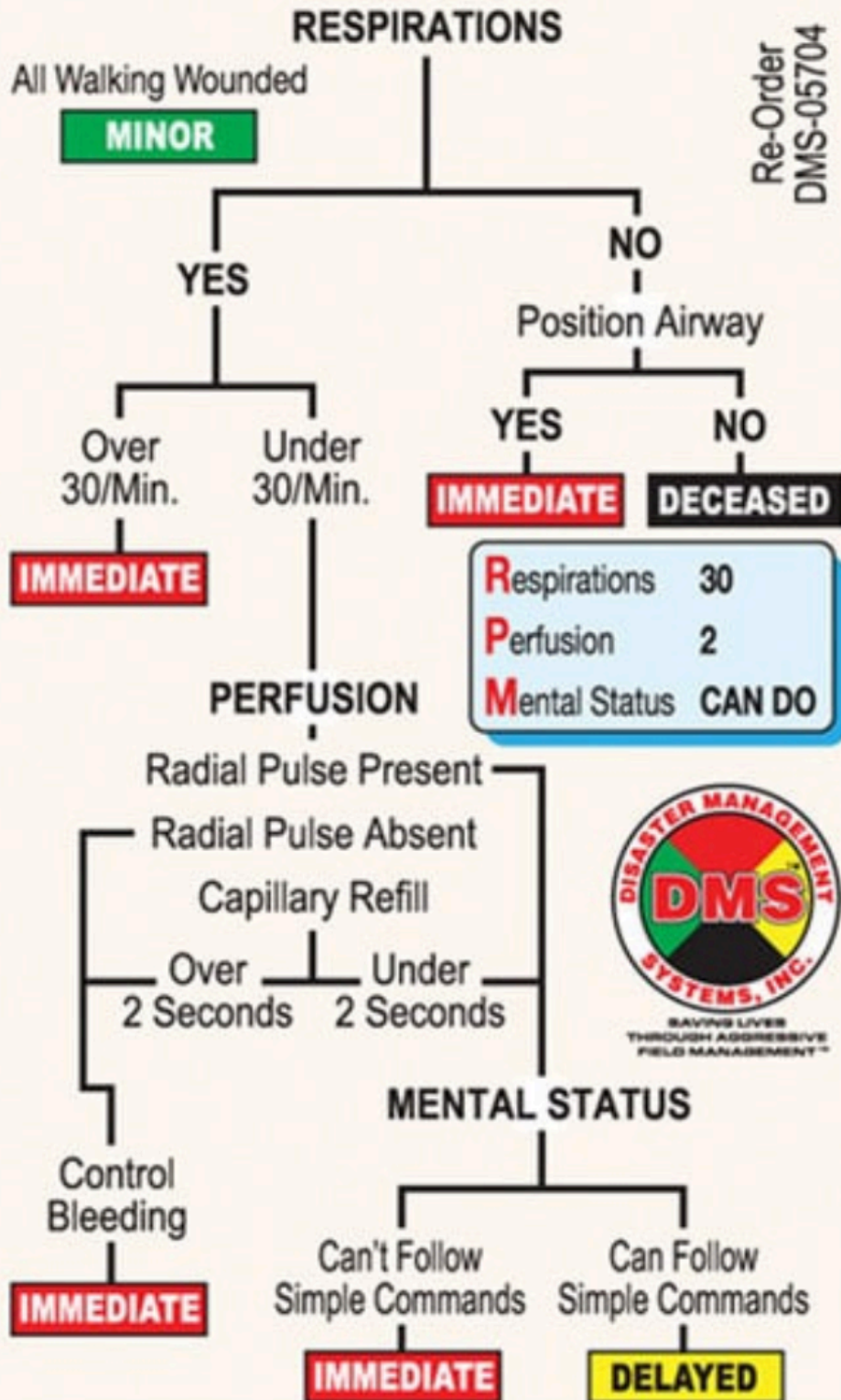
ALL PROVIDERS

- Ensure Scene Safety
- If assigned to triage, utilize START TRIAGE to identify patients
- If assigned to transport, treat per appropriate treatment guideline

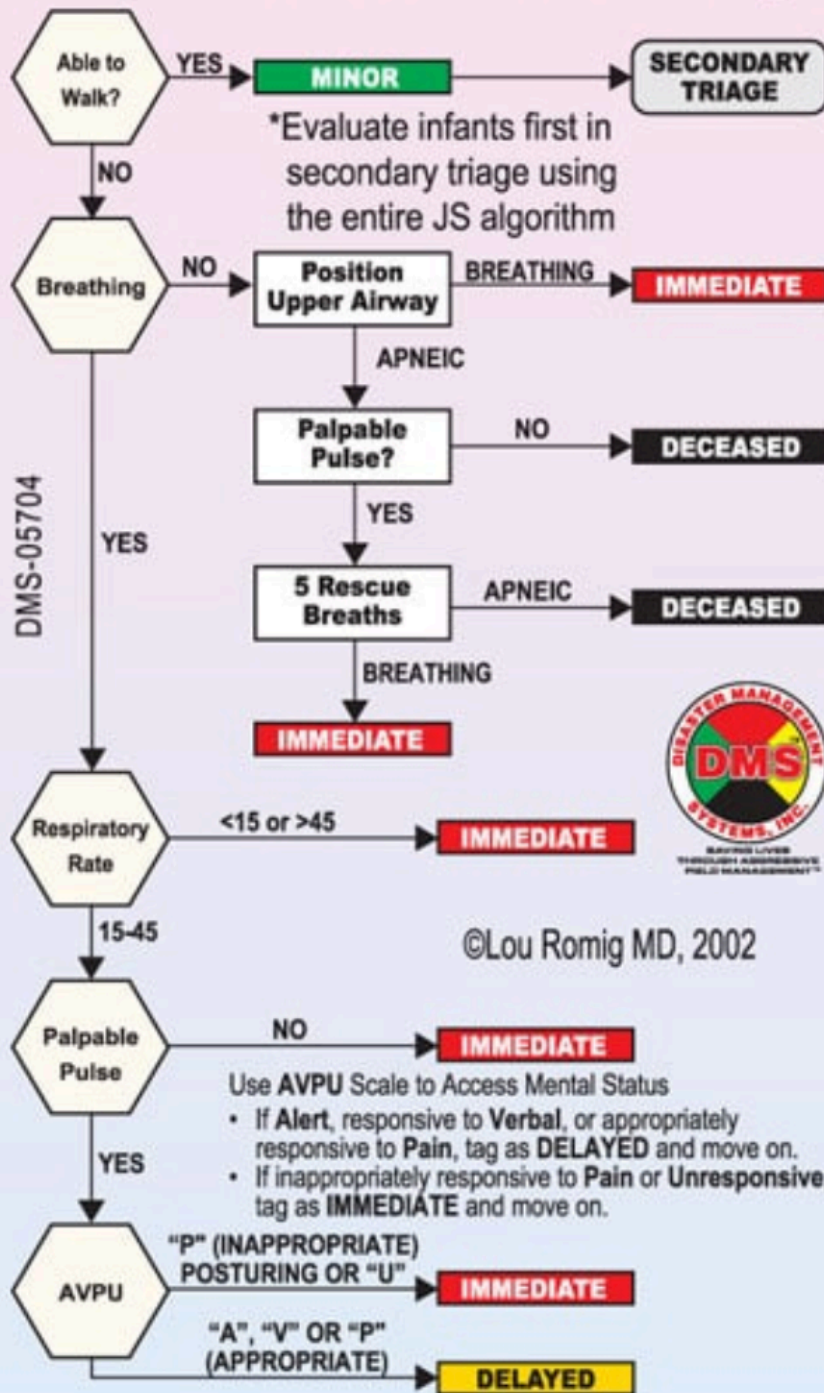
START / JUMPSTART TRIAGE

- Each transport capable unit shall be equipped with a Triage Kit, and each member of the crew should be familiar with the START Triage system (diagrammed below):
 - **RED** (IMMEDIATE/CRITICAL): These are the patients of the highest priority, which in most circumstances, are removed and treated first. This category **EXCLUDES** patients that are in cardiopulmonary arrest, or are near death and have--in the judgement of the Triage Officer--fatal injuries
 - **YELLOW** (DELAYED/SERIOUS): Patients whose injury/illness is serious and needs attention. However, treatment and transport may be delayed until viable RED patients have been treated and transported
 - **GREEN** (MINOR/STABLE): Patients who may have treatment and/or transport delayed
 - **BLACK** (DECEASED): Patients who are already dead or so severely injured that death is certain within a short time, regardless of treatment given
 - **CONTAMINATED**: These patients may be from any triage category but need to be grossly decontaminated prior to transport

START TRIAGE



JumpSTART Pediatric MCI Triage



SANDOVAL COUNTY SOUTH MCI PATIENT DISTRIBUTION

In the event that **4** patients or more need to be transported to the hospital from the same incident, the following steps will be completed:

- First arriving unit will notify the duty officer (if not already done)
- Designate a Transport Officer as soon as possible
- Duty officer or designee will banner the event (EMSystems)
- Patients will be distributed according to the following algorithm

IMMEDIATES (CRITICAL)

FIRST WAVE

TIER I HOSPITAL
UNMH
4 **RED** PATIENTS ARE
TRANSPORTED TO UNMH IN THE
FIRST DISTRIBUTION

TIER II HOSPITALS
PRES DT-LOVELACE DT-
RUST
(CONSIDER TRAVEL TIMES)

2 **RED** PATIENTS PER FACILITY

TIER III HOSPITALS
WOMENS-SRMC-HEART-
KASEMAN-LOVELACE WEST
(CONSIDER TRAVEL TIMES)

1 **RED** PATIENT PER FACILITY

SUBSEQUENT WAVES

2 **RED** TO TIER I FACILITY
2 **RED** TO TIER II FACILITIES
1 **RED** TO TIER III FACILITIES
REPEAT AS NEEDED

DELAYED (STABLE, INJURED, NON-AMBULATORY)

- PATIENTS THAT ARE STABLE SHALL NOT DELAY THE TRANSPORT OF **RED** PATIENTS
- DELAYED PATIENTS SHOULD BE EVENLY DISTRIBUTED TO TIER II AND TIER III FACILITIES FIRST IF FEASIBLE.
- DELAYED PATIENTS CAN BE TRANSPORTED WITH **RED** PATIENTS AT THE DISCRETION OF THE TRANSPORTING CREW AND TRANSPORT OFFICER

MINOR (WALKING WOUNDED)

- PATIENTS THAT ARE STABLE SHALL NOT DELAY THE TRANSPORT OF **RED** PATIENTS
- CONSIDER USE OF PATIENT POV OR OTHER MEANS (BUS/VAN/ETC.) FOR MINOR PATIENTS REQUESTING TRANSPORT
- TREAT PATIENTS ON SCENE UNTIL TRANSPORT BECOMES AVAILABLE
- MINOR PATIENTS SHOULD BE EVENLY DISTRIBUTED TO TIER III FACILITIES FIRST IF FEASIBLE
- MINOR PATIENTS CAN BE TRANSPORTED WITH **RED** PATIENTS AT THE DISCRETION OF THE TRANSPORTING CREW AND TRANSPORT OFFICER

KEY POINTS

1. Remember that treatment and transport of **RED** patients without delay is priority
2. Consider transport to Tier II / Tier III first for **RED** patients if transport time is extended and the extra time to Tier I will be detrimental to the patient
3. Command page is required for all MCI events

SANDOVAL COUNTY NORTH MCI PATIENT DISTRIBUTION

In the event that **4** patients or more need to be transported to the hospital from the same incident, the following steps will be completed:

- First arriving unit will notify the duty officer (if not already done)
- Establish a Transport Office as soon as possible
- Duty officer or designee will banner the event (EMSystems)
- Patients will be distributed according to the following algorithm

IMMEDIATES (CRITICAL)

FIRST WAVE

TIER I HOSPITAL
UNMH
4 RED PATIENTS ARE
TRANSPORTED TO UNMH IN THE
FIRST DISTRIBUTION

TIER II HOSPITALS
PRES DT-LOVELACE DT-
RUST-ST VINCENT-LOS
ALAMOS-FARMINGTON
(CONSIDER TRAVEL TIMES)
2 RED PATIENTS PER FACILITY

TIER III HOSPITALS
WOMENS-SRMC-HEART-
KASEMAN-LOVELACE WEST-
CROWNPOINT
(CONSIDER TRAVEL TIMES)
1 RED PATIENT PER FACILITY

SUBSEQUENT WAVES

2 RED TO TIER I FACILITY
2 RED TO TIER II FACILITIES
1 RED TO TIER III FACILITIES
REPEAT AS NEEDED

DELAYED

(STABLE, INJURED, NON-AMBULATORY)

- PATIENTS THAT ARE STABLE SHALL NOT DELAY THE TRANSPORT OF **RED** PATIENTS
- DELAYED PATIENTS SHOULD BE EVENLY DISTRIBUTED TO TIER II AND TIER III FACILITIES FIRST IF FEASIBLE
- DELAYED PATIENTS CAN BE TRANSPORTED WITH **RED** PATIENTS AT THE DISCRETION OF THE TRANSPORTING CREW AND TRANSPORT OFFICER

MINOR (WALKING WOUNDED)

- PATIENTS THAT ARE STABLE SHALL NOT DELAY THE TRANSPORT OF **RED** PATIENTS
- CONSIDER USE OF PATIENT POV OR OTHER MEANS (BUS/VAN/ETC.) FOR MINOR PATIENTS REQUESTING TRANSPORT
- TREAT PATIENTS ON SCENE UNTIL TRANSPORT BECOMES AVAILABLE
- MINOR PATIENTS SHOULD BE EVENLY DISTRIBUTED TO TIER III FACILITIES FIRST IF FEASIBLE
- MINOR PATIENTS CAN BE TRANSPORTED WITH **RED** PATIENTS AT THE DISCRETION OF THE TRANSPORTING CREW AND TRANSPORT OFFICER

KEY POINTS

1. Remember that treatment and transport of **RED** patients without delay is priority
2. Consider transport to Tier II / Tier III first for **RED** patients if transport time is extended and the extra time to Tier I will be detrimental to the patient
3. Command page is required for all MCI events

ALBUQUERQUE BERNALILLO COUNTY MCI PATIENT DISTRIBUTION

In the event that 4 patients or more need to be transported to the hospital, the following steps will be completed:

- First arriving unit will banner the event
- Distribute patients according to the following algorithm

Immediates/RED (Critical)

First Wave

TIER I HOSPITAL: UNMH

4 of the most critical **RED** patients are transported to the UNMH in the first distribution of patients

This can be done by transporting 2 RED triaged patients per transport unit

TIER II HOSPITALS: PRES DT, LOVELACE

After UNMH has been designated 4 critical **RED** patients, 2 critical RED patients can be transported to a TIER II hospital

**TIER III HOSPITALS:
RUST, WESTSIDE, WOMEN'S, SRMC, HEART, KASEMAN**
In the event that multiple critical patients need transport and the previous hospitals have received critical patients, these hospitals will take 1 **RED** triaged patient

Subsequent Waves

Once the first wave of critical **RED** triaged patients have been delivered to all capable hospitals, the distribution will go as follows:

- 2 critical **RED** patients per hospital starting with TIER I, then TIER II hospitals
- Next, 1 critical **RED** patient to any TIER III hospital
- This cycle can be repeated until all RED triaged patients are transported

Delayed/YELLOW (Stable, injured, Non-ambulatory)

- Patients that are stable shall not delay the transportation of **RED** triaged patients
- Ideally, transport of Delayed/Minor patients should be evenly distributed to ED's that have not received **RED** triaged patients and distribution is at the discretion of the IC or Transport Officer.
- If deemed safe for the patient and minimal chance that the patient's condition could deteriorate, a Delayed or Minor patient can be transported in a transport capable unit's front seat
- If in doubt, keep this patient on scene until more transport units become available.
- Delayed and minor patients can be transported to any hospital ED in an MCI scenario

Minor/GREEN (Walking Wounded)

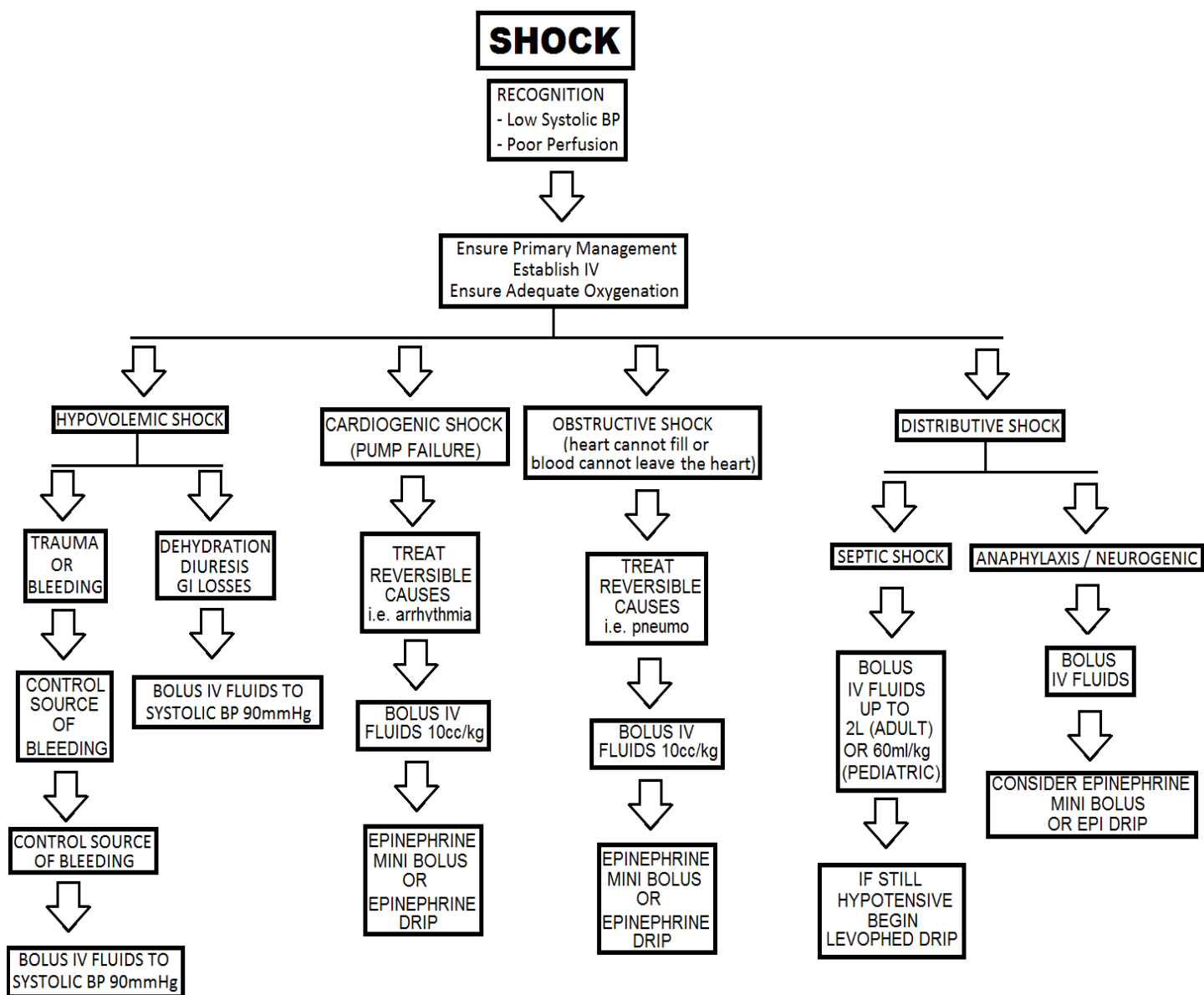
- It can be anticipated that minor patients in an MCI event will leave the scene via POV or other means
- If the MCI presents with multiple Minor patients, it is an option to transport these victims via BUS or high capacity transportation vehicle.
- These patients are a low transport priority and treatment can be completed on scene until transport is available

KEY POINT

- If a patient is in dire need of treatment and travel time to a TIER I or II hospital is a factor, TIER III hospitals can be utilized in the MCI scenario
- TIER II & III hospitals are only to receive critical trauma patients in Multi-Casualty Incidents
- TIER II & III hospitals goals for patient care will be stabilization (medical or surgical) and transfer to the UNMH or appropriate hospital; this could be located in NM or outside of the state
- Patients can be distributed to hospitals outside of the Bernalillo County metro area from the scene
- The objective of an MCI is to transport all critical patients off the scene without delay
- The Veteran Administration ED will accept "Yellow" and "Green" triaged patients only in the event of an MCI
- The VA will also accept non-veterans patients in the event of an MCI
- If possible, patients with specific health care needs (i.e. Pediatrics or OB) should be transported to hospitals with those specialties
- Refer to most recent hospital capabilities chart or default to UNMH

APPENDIX B: SHOCK ALGORITHM

Effective 2/20/2020



APPENDIX C: ACUPRESSURE GUIDELINES

Effective 2/20/2020

GENERAL	<ul style="list-style-type: none"> ➤ Acupressure is a non-invasive complementary medical therapy that may be very useful in the management of numerous medical conditions, especially when pharmacotherapy is not practical or feasible due to environmental conditions, or due to limitations in a provider's scope of practice
BASIC	<ul style="list-style-type: none"> ➤ The following acupressure techniques may be utilized on appropriate patients, in conjunction with relevant medical treatment guidelines, provided that the EMS provider has been trained in that technique by an acupressurist approved by their EMS agency

PC 6 Neiguan - calms spirit, nausea, upset stomach, motion sickness

Location: 2 cm proximal to wrist crease on palmar side, between 2 tendons (palmaris longus and flexor carpi radialis)



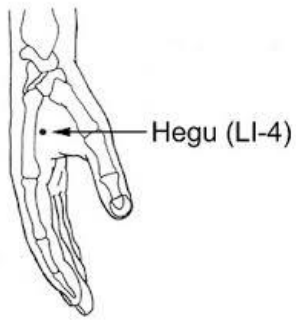
Heart Normal Xin Chang - for tachycardia, bradycardia, angina, and chest pain

Location: middle finger, palmar side, 2 points equally spaced in the middle of the proximal phalangeal segment, on the ulnar margin. This point is pressed along with HT 8, where 5th digit folds over on palm



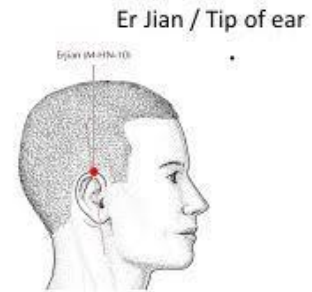
LI 4 Hegu - for headaches and hypertension

Location: on dorsal side of the hand, in depression between 1st and 2nd metacarpal



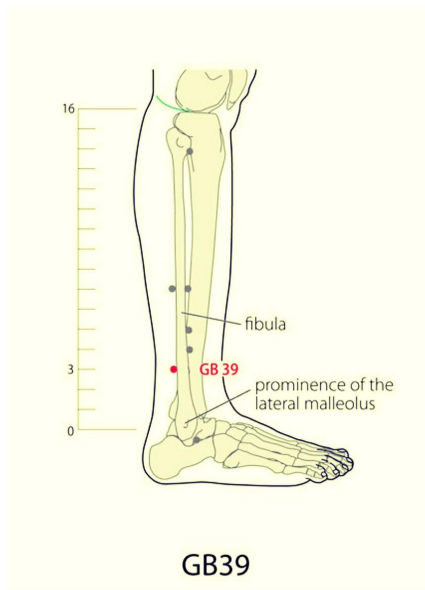
Er Jian - for Hypertension

Location: at the apex of ear (fold ear over to find highest point of superior crease)



GB 39 - Huanzhong and Ht 8 - Shaofu (opposite side) for migraines

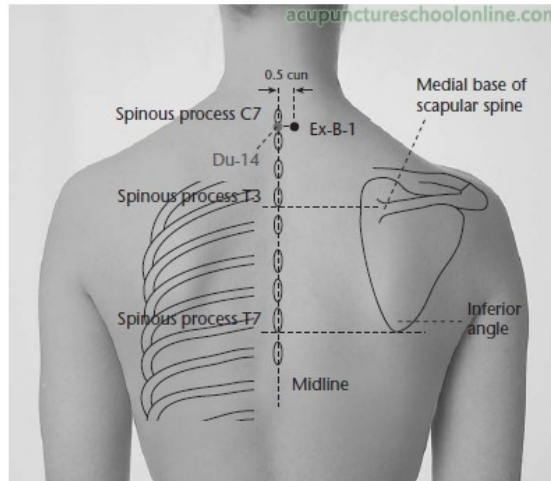
Location: for GB 39 - 3 cm superior to the tip of the external malleolus in a depression between the posterior border of the fibula and the tendons of peroneus longus and brevis on lateral side of the leg. Add Ht 8 - on palmar side of hand, where 5th digit folds over on palm.



Location for KD 27: In a depression on the inferior border of the clavicle, 2 cm lateral to the CV line
Location for GV 14: 0.5 cm lateral to cervical 7 spinous process
Press anterior and posterior points simultaneously

Location for GV 14: 0.5 cm lateral to cervical 7 spinous process

Press anterior and posterior points simultaneously



Location for Shen Men: triangular fossa
Location for Point Zero: base of helix root where you may feel a notch

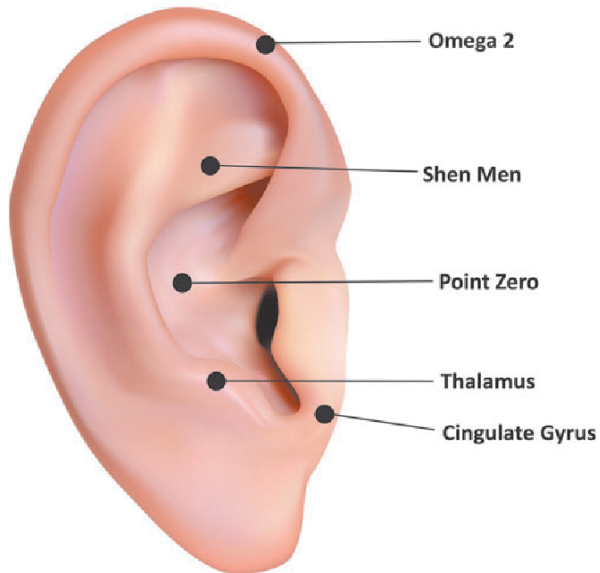
Location for Shen Men: triangular fossa

Location for Point Zero: base of helix root where you may feel a notch



Battlefield for pain - Developed by Col. Richard Niemtow, MD, PhD, MPH. Designed to be administered quickly and easily in the field and deliver rapid pain relief. Results are often significant and long lasting.

Battlefield Acupuncture Protocol



Cingulate Gyrus - limbic system, processes emotion

Thalamus - regulates over-excitement, decreases pain, calming

Omega 2 - reduces musculoskeletal pain

Point zero - resets homeostatic balance for entire body

Shen Men - tranquilizes mind, decreases stress, anxiety and pain and decreases blood pressure

Protocol:

- 1.) Choose ear (ipsilateral to pain) and insert ear seed pellet on Cingulate Gyrus point. Ask patient to walk or move painful part for 30 seconds. If there is not significant pain relief (at least 20%), apply pellet on Cingulate Gyrus on opposite ear. If there is pain relief, stay on that same side
- 2.) Apply pellet on Thalamus point, on the same ear as step 1. Ask patient to walk or move painful part for 30 seconds. If not significant pain relief, continue with Thalamus on opposite ear. If there is pain relief, stay on that same side
- 3.) Continue as above in correct order which is Cingulate Gyrus, Thalamus, Omega 2, Point Zero and Shen Men. As soon as one of the points produces significant pain relief, treat remaining points, in order, on that same side

APPENDIX D: MINORS CONSENT FOR HEALTH CARE SERVICES IN NEW MEXICO

Effective 2/20/2020

Under HIPAA (45 CFR § 164.502(g)), a parent/guardian generally has access to their child's medical records. However, an exception is made if the minor consents to care that does not require parental/guardian consent under state law. Most providers take the position that if the minor can consent for the service, then they have the right to confidentiality and control access to and disclosure of medical records for those services (as below).

§ 24-1-9 NMSA 1978 ... Sexually transmitted disease

Any person regardless of age has the capacity to consent to an examination and treatment by a licensed physician for any sexually transmitted disease. Test results for sexually transmitted diseases may be released to the subject's legally authorized representative, guardian or legal custodian upon request (NMSA § 24-1-9.4), but it is not required.

§ 24-1-13.1 NMSA 1978 ... Pregnancy

A health care provider shall have the authority, within the limits of his license, to provide prenatal, delivery and postnatal care to a female minor. A minor is presumed to have the capacity to consent to prenatal, delivery and postnatal care by a licensed health care provider.

§ 24-8-5 NMSA 1978 ... Contraception

Neither the state... nor any health facility furnishing family planning services shall subject any person to any standard or requirement as a prerequisite for receipt of any requested family planning service...[exceptions do not address age of client].

§24-10-2 NMSA 1978 ... Emergency Conditions

... in cases of emergency in which a minor is in need of immediate hospitalization, medical attention or surgery and the parents of the minor cannot be located for the purpose of consenting...after reasonable efforts have been made..., consent can be given by any person standing in loco parentis to the minor. But see also §24-7A-6.2 NMSA 1978 below

§32A-6A-14, 15 NMSA 1978 ... MENTAL HEALTH (including substance abuse) [Rev. 2007]

A child under the age of fourteen years may consent to initial assessment and early intervention services, limited to verbal therapy, not to exceed a two-week period. After the initial period, parental consent is required.

A child fourteen years of age or older has the right to consent to and receive individual psychotherapy, group psychotherapy, guidance counseling or other forms of verbal therapy and information regarding such counseling is confidential. A child fourteen years of age or older has the right to consent to psychotropic medication with notice to the parent/legal guardian. A child fourteen years of age or older has the exclusive right to consent to disclosure of their mental health records. §24-7A-6.2 NMSA 1978 ... Consent for Certain Minors Fourteen Years or Older (homeless youth or parent of a child)

An unemancipated minor fourteen years of age or older has the right to consent to and receive medically necessary health care - clinical and rehabilitative, physical, mental, or behavioral health services that are essential to prevent, diagnose or treat medical conditions. The minor must be living apart from the minor's parents/ legal guardian, or the parent of child. The healthcare must be provided within professionally accepted standards of practice and national guidelines.

For complete statutes, visit: <http://www.nmonesource.com/nmnxtadmin/nmpublic.aspx>

APPENDIX E: MEDICATION FORMULARY

Revised 2/15/2021

MEDICATION	ALL PROVIDERS	BASIC	INTERMEDIATE	PARAMEDIC
Aspirin	X	X	X	X
Albuterol	X	X	X	X
Epinephrine 1mg/mL (OLD NAME 1:1,000)	X	X	X	X
Naloxone	X (MAD ONLY)	X	X	X
Oral Glucose	X	X	X	X
Oxygen	X	X	X	X
Acetaminophen		X	X	X
Ibuprofen		X	X	X
Ipratropium bromide		X	X	X
Dexamethasone			X	X
Dextrose (D10W)			X	X
Diphenhydramine			X	X
Epinephrine 0.1mg/mL (OLD NAME 1:10,000)			X	X
Fentanyl			X	X
Glucagon			X	X
Lactated Ringers			X	X
Lidocaine (For IO Administration Only)			X	X
Methylprednisolone			X	X
Normal Saline (0.9% Sodium Chloride)			X	X
Ondansetron			X	X
Promethazine			X	X
Adenosine				X
Amiodarone				X
Atropine Sulfate				X

GO TO NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

Calcium Chloride				X
Calcium Gluconate				X
Epinephrine Drip				X
Epinephrine mini-bolus (0.01mg/mL)				X
Ketorolac				X
Lidocaine				X
Magnesium Sulfate				X
Midazolam				X
Nitroglycerin				X
Norepinephrine Drip				X
Oxytocin				X
Sodium Bicarbonate				X
Tetracaine Ophthalmic solution				X

NOTES

- Due to differences with medication procurement, etc., not all agencies will have access to all of the medications listed above. Agencies lacking one or more of these medications are encouraged to find alternative suppliers for these medications
- Certain EMS agencies covered by these treatment guidelines may have NM EMS Bureau approved “special skills” that modify the list of allowable medications for providers in their agency. Such special skills are not reflected in this table; refer to the approved special skill application for more information

APPENDIX F: MEDICATION REFERENCE GUIDE

Effective 2/15/2021

MEDICATION	TREATMENT GUIDELINES	DOSE	CONTRAINDICATIONS/ PRECAUTIONS
Acetaminophen Tylenol	Pain Management Fever	Adult: 650 mg PO, one time only Pediatric: 15 mg/kg PO, one time only	Contraindications: liver failure or disease, known or suspected frequent alcohol use
Adenosine Adenocard	Adult Regular Narrow Complex Tachycardia Pediatric Narrow Complex Tachycardia	Adult: 6 mg rapid IVP followed by 20 mL rapid Normal Saline flush; if unchanged, 2 nd and 3 rd dose: 12 mg rapid IVP followed by 20 mL rapid Normal Saline flush Pediatric: 0.1 mg/kg IV/IO (max 6 mg) rapid IVP followed by 20 mL rapid Normal Saline flush; if unchanged, 2 nd and 3 rd dose: 0.2 mg/kg IV/IO (max 12 mg) rapid IVP followed by 20 mL rapid Normal Saline flush	Contraindications: wide complex tachycardias, heart transplant patients, and high degree AV blocks.
Albuterol Ventolin, Proventil	Adult Respiratory Distress Pediatric Respiratory Distress Hyperkalemia	Wheezing/respiratory distress (all ages): 5 mg nebulized, repeat if wheezing persists Hyperkalemia (all ages): 20 mg nebulized	Contraindications: none in emergency setting
Amiodarone Cordarone	Adult Cardiac Arrest (Non-Traumatic) Adult Wide Complex Tachycardia With a Pulse Pediatric Cardiac Arrest (Non-Traumatic)	Pulseless VT/VF: Adult: 300 mg initial bolus, re-bolus once with 150 mg after 3-5 minutes. Pediatric: 5 mg/kg initial bolus. May re-bolus every 3-5 min to a max of 3 doses Ventricular Tachycardia with a pulse: Adult: 150 mg over 10 min. Repeat as needed if VT recurs Pediatric: not indicated Maintenance infusion Adult: 1 mg/minute for 1 st 6 hours, then 0.5 mg/minute for 18 hours. Pediatric: not indicated To make Amiodarone Infusion: add 300 mg of Amiodarone to 250 mL bag of Normal Saline	Contraindications: none in emergency setting
Aspirin	Non-Traumatic Chest Pain / Acute Coronary Syndrome	Adult: 324 mg PO single dose; instruct the patient to chew and swallow Not indicated for pediatrics	Contraindications: true allergy to Aspirin or other non-steroidal anti-inflammatory medications (ibuprofen, naproxen, etc.), pediatrics, active uncontrolled bleeding NOTE: Many people are told not to take aspirin because it upsets their stomach or they have a history of GI bleeding (e.g., ulcers). In the setting of cardiac chest pain this is NOT a contraindication – give them Aspirin

FOR UNM EMS CONSORTIUM CALL 505-449-5710

MEDICATION	TREATMENT GUIDELINES	DOSE	CONTRAINDICATIONS/ PRECAUTIONS
Atropine Sulfate Atropine	Ingestion / Poisoning / Overdose Symptomatic Bradycardia Pediatric Bradycardia	Suspected Organophosphate Exposure: Adult: 2 mg IV/IO every 3 - 5 minutes until symptoms improve Pediatric: 0.05 mg/kg IV/IO, every 3 - 5 minutes until symptoms improve Symptomatic Bradycardia: Adult: 1 mg IV; may be repeated until a maximum of 3 mg total has been administered Pediatric: 0.02 mg/kg per dose, with minimum single dose of 0.1 mg and a maximum single dose of 0.5 mg.	Contraindications: none in emergency setting
Calcium Chloride	Adult Cardiac Arrest (Non-Traumatic) Pediatric Cardiac Arrest (Non-Traumatic) Ingestion / Poisoning / Overdose Hyperkalemia	Adult: 1 gram IV/IO over 10 minutes Pediatric: 20 mg/kg IV/IO over 10 minutes, maximum dose 1 gram	Contraindications: hypercalcemia; relative contraindication in patients taking Digitalis (may worsen arrhythmias) <i>Precipitates with Sodium Bicarbonate; extravasation may cause necrosis.</i>
Calcium Gluconate	Adult Cardiac Arrest (Non-Traumatic) Pediatric Cardiac Arrest (Non-Traumatic) Ingestion / Poisoning / Overdose Hyperkalemia	Adult: 3 grams IV/IO over 10 minutes Pediatric: 60 mg/kg IV/IO over 10 minutes, maximum dose 3 gram	Contraindications: hypercalcemia; relative contraindication in patients taking Digitalis (may worsen arrhythmias) <i>Precipitates with Sodium Bicarbonate; extravasation may cause necrosis.</i>
Dexamethasone Decadron	Adult Respiratory Distress Pediatric Respiratory Distress Allergic Reaction and Anaphylaxis	Adult: 10 mg IV/IM/IO/PO Pediatric: 0.6 mg/kg IV/IM/IO/PO up to maximum dose of 10mg (IV/IO push slowly) Alternate Pediatric Dosing: >20 kg: 10 mg IV/IM/IO/PO 10-20 kg: 5 mg IV/IM/IO/PO <10 kg: 0.6 mg/kg IV/IM/IO/PO	Contraindications: none in emergency setting <i>Push slowly to avoid transient genital pain/burning</i>
Dextrose (D10W)	Diabetic Emergencies Neonatal Resuscitation	Adult: up 250 mL IV/IO; titrate to improvement in mental status Pediatric/Neonate: 2.5 mL/kg IV/IO	Contraindications: none in emergency setting
Diphenhydramine Benadryl	Allergic Reaction and Anaphylaxis Adult Respiratory Distress Pediatric Respiratory Distress Extrapyramidal Reactions	Adult: 25 – 50 mg IV/IO/IM Pediatric: 1-2 mg/kg IV/IO/IM	Contraindications: none in emergency setting <i>Concurrent use of sedative agents may potentiate sedative effects.</i>

MEDICATION	TREATMENT GUIDELINES	DOSE	CONTRAINDICATIONS/ PRECAUTIONS
Epinephrine 0.1mg/mL (OLD NAME 1:10,000)	Adult Cardiac Arrest (Non-Traumatic) Pediatric Cardiac Arrest (Non-Traumatic) Cardiac Arrest – Hypothermia Neonatal Resuscitation Pediatric Bradycardia	Adult: 1 mg IV/IO every 10 minutes until ROSC achieved or resuscitation efforts are terminated Pediatric: 0.01 mg/kg (0.1 mL/kg) up to maximum of 1 mg per dose IV/IO every 3 - 5 minutes	Contraindications: none in emergency setting <i>One dose only in hypothermic cardiac arrest</i>
Epinephrine 1mg/mL (OLD NAME 1:1,000)	Adult Respiratory Distress Pediatric Respiratory Distress Allergic Reaction and Anaphylaxis	Allergic Reaction and Anaphylaxis: Adult: 0.3 mg IM Pediatric: <25 kg: 0.15 mg IM >25 kg: 0.3 mg IM Respiratory Distress (all ages): 1 mg mixed in 3mL Normal Saline and then nebulized	Contraindications: none in emergency setting
Epinephrine Drip	Adult Respiratory Distress Pediatric Respiratory Distress Allergic Reaction and Anaphylaxis Sepsis	Epinephrine Drip Adult: 2 – 10 mcg/min IV/IO; titrate to MAP 65 mm Hg Pediatric: 0.1 – 1 mcg/kg/minute IV/IO; titrate MAP/BP to age To make Epinephrine Drip: Add 1 mg of Epinephrine 1 mg/mL (OLD NAME 1:1000) to 250 mL bag of Normal Saline	Contraindications: none in emergency setting
Epinephrine Mini-Bolus 0.01mg/mL (OLD NAME 1:100,000)	Adult Respiratory Distress Allergic Reaction and Anaphylaxis Sepsis Cardiogenic Shock	Adult: 2 – 10 mcg IV/IO, may repeat every minute as needed to sustain MAP of 65 mmHg Not indicated for pediatrics To make Epinephrine Mini-Bolus: add 1 mL of Epinephrine 0.1 mg/mL (OLD NAME 1:10,000) in syringe with 9 mL Normal Saline	Contraindications: not indicated for pediatrics
Fentanyl Sublimaze	Pain Management Post Intubation Checklist	Adult: 50 – 150 mcg IV/IO/IM or 100 mcg (50 mcg per nare) IN every 5 min as needed Pediatric: 0.5 – 1.5 mcg/kg IV/IO/IM or 1.5 mcg/kg IN (max 50 mcg per nare) every 5 minutes as needed	Contraindications: altered mental status, hypotension, respiratory depression <i>Consider lower starting dose in geriatric patients</i>
Glucagon	Diabetic Emergencies	Adult and Pediatric >6 years: 1 mg IM Pediatric ≤ 6 years: 0.5 mg IM	Contraindications: None in emergency setting
Ibuprofen Motrin, Advil, etc.	Fever Pain Management	Adult: 400-800 mg, one dose only Pediatric > 6 months: 10 mg/kg PO to maximum dose of 800 mg, one time only	Contraindications: pregnancy/breastfeeding, renal impairment, patients < 6 months old, active bleeding, head injury, unable to tolerate PO

MEDICATION	TREATMENT GUIDELINES	DOSE	CONTRAINDICATIONS/ PRECAUTIONS
Ipratropium bromide Atrovent	Adult Respiratory Distress Pediatric Respiratory Distress	All ages: 0.5 mg nebulized	Contraindications: None in emergency setting
Ketorolac Toradol	Pain Management	Adult < 65: 15 mg IV/IM Pediatric > 2 years: 0.5 mg/kg IV or 1 mg/kg IM (max 15 mg IV or IM)	Contraindications: pregnancy/breastfeeding, renal impairment, patients < 2 or >65 years old, active bleeding, head injury
Lactated Ringers	Multiple Guidelines	10 mL/kg or 20 mL/kg starting bolus (depending on guideline) of Normal Saline or Lactated Ringers ; may repeat as clinically indicated in patients with hemodynamic instability	Contraindications: fluid overload <i>Administer minimum amount necessary to support hemodynamics and mental status</i> <i>Either Normal Saline or Lactated Ringers may be used initially; to prevent hyperchloremic acidosis, consider switching to Lactated Ringers if patient has received >4 L Normal Saline</i>
Lidocaine Xylocaine	Adult Cardiac Arrest (Non-Traumatic) Pediatric Cardiac Arrest (Non-Traumatic) Adult Wide Complex Tachycardia With A Pulse Pediatric Wide Complex Tachycardia With A Pulse Infusion Pump Intraosseous Access	Adult Cardiac Arrest (Non-traumatic): Adult: First dose 1 - 1.5 mg/kg IV/IO; Subsequent doses 0.5 - 0.75 mg/kg IV/IO, every 5 minutes to a maximum total dose of 3 mg/kg For extended transport times in a patient with persistent ventricular tachycardia or recurrent ventricular fibrillation, consider Lidocaine infusion: rate = 1 mg/minute Pediatric Cardiac Arrest (Non-traumatic): Pediatric: 1 mg/kg IV/IO to a maximum total dose of 100 mg All Ages Wide Complex Tachycardia With A Pulse: All ages: 1 mg/kg IV/IO, to a maximum total dose of 100 mg Intraosseous Access: Adult: 40 mg (2 mL) IO, infused over 1-2 minutes, flushed with 10 mL NS: an additional 20 mg (1 mL) IO may be given if needed Pediatric: 0.5 mg/kg, up to 40 mg (2 mL) IO, infused over 1-2 minutes, flushed with 5-10 mL NS	Contraindications: None in emergency setting

MEDICATION	TREATMENT GUIDELINES	DOSE	CONTRAINDICATIONS/ PRECAUTIONS
Magnesium Sulfate	<p>Adult Cardiac Arrest (Non-traumatic)</p> <p>Pediatric Cardiac Arrest (Non-traumatic)</p> <p>Adult Wide Complex Tachycardia With A Pulse</p> <p>Pediatric Wide Complex Tachycardia With A Pulse</p> <p>Refractory Ventricular Fibrillation</p> <p>Adult Respiratory Distress</p> <p>Pediatric Respiratory Distress</p> <p>Preeclampsia</p> <p>Eclampsia</p> <p>Infusion Pump</p>	<p>Adult Cardiac Arrest (Non-traumatic); Adult Wide Complex Tachycardia With A Pulse; Refractory Ventricular Fibrillation: Adult: 2 grams IV/IO; <u>administer over 4 minutes</u></p> <p>Pediatric Cardiac Arrest (Non-traumatic); Pediatric Wide Complex Tachycardia With A Pulse; Refractory Ventricular Fibrillation: Pediatric: 50 mg/kg IV/IO to a maximum total dose of 2 grams; <u>administer over 4 minutes</u></p> <p>Adult Respiratory Distress: Adult: 2 grams IV/IO infusion, <u>administer over 10 minutes</u></p> <p>Pediatric Respiratory Distress: Pediatric: 50 mg/kg IV/IO, up to a maximum of 2 grams; <u>administer over 10 minutes</u></p> <p>Preeclampsia and Eclampsia: 4 grams IV/IO infusion, <u>administer over 10 minutes</u>, followed by an IV/IO infusion of 2 grams per hour</p> <p>To make Magnesium Sulfate Infusion: add 4 grams of Magnesium Sulfate to 250 mL bag of Normal Saline</p>	<p>Contraindications: none in emergency setting; for non-life-threatening respiratory distress, contraindications include severe renal disease, hypermagnesemia, and hypocalcemia</p> <p><i>If Magnesium Sulfate is administered too rapidly or the patient receives an overdose, severe hypotension, arrhythmia, respiratory and cardiac arrest can occur. In this event, administer Calcium Chloride (Adult 1 gram IV or Pediatric 20 mg/kg) over 10 minutes or Calcium Gluconate (Adult 3 gram IV or Pediatric 60 mg/kg) over 10 minutes</i></p>
Methylprednisolone Solu-Medrol	<p>Adult Respiratory Distress</p> <p>Pediatric Respiratory Distress</p> <p>Allergic Reaction and Anaphylaxis</p>	<p>Adult: 125 mg IV/IM/IO</p> <p>Pediatric: 1 mg/kg IV/IM/IO</p>	<p>Contraindications: none in the emergency setting</p>
Midazolam Versed	<p>Seizures/Convulsions</p> <p>Physical and Chemical Restraint</p> <p>Alcohol Withdrawal</p> <p>Extrapyramidal Reactions</p> <p>Bites: Animals / Humans / Insects</p> <p>Post Intubation Checklist</p> <p>Non-Traumatic Chest Pain / Acute Coronary Syndrome</p> <p>CPAP Checklist</p> <p>Pain Management</p>	<p>Seizures/Convulsions; Physical and Chemical Restraint; Alcohol Withdrawal; Extrapyramidal Reactions Adult: 10 mg IM/IN; 5 mg IV/IO; may repeat every 10 minutes as needed</p> <p>Pediatric: 0.2 mg/kg IM/IN, up to maximum dose of 10 mg; 0.1 mg/kg IV/IO, up to maximum dose of 5 mg; may repeat every 10 minutes as needed</p> <p>“Low Dose”, for use in Chest Pain, Pain Management, Post-intubation, CPAP:</p> <ul style="list-style-type: none"> Adult Dose: 5 mg IM/IN; 2.5 mg IV/IO Pediatric Dose: 0.1 mg/kg IM/IN, up to maximum dose of 10 mg; 0.05 mg/kg IV/IO, up to maximum dose of 5 mg 	<p>Contraindications: none, if actively experiencing seizures</p> <p><i>Concurrent use of sedative agents may potentiate sedative effects.</i></p>

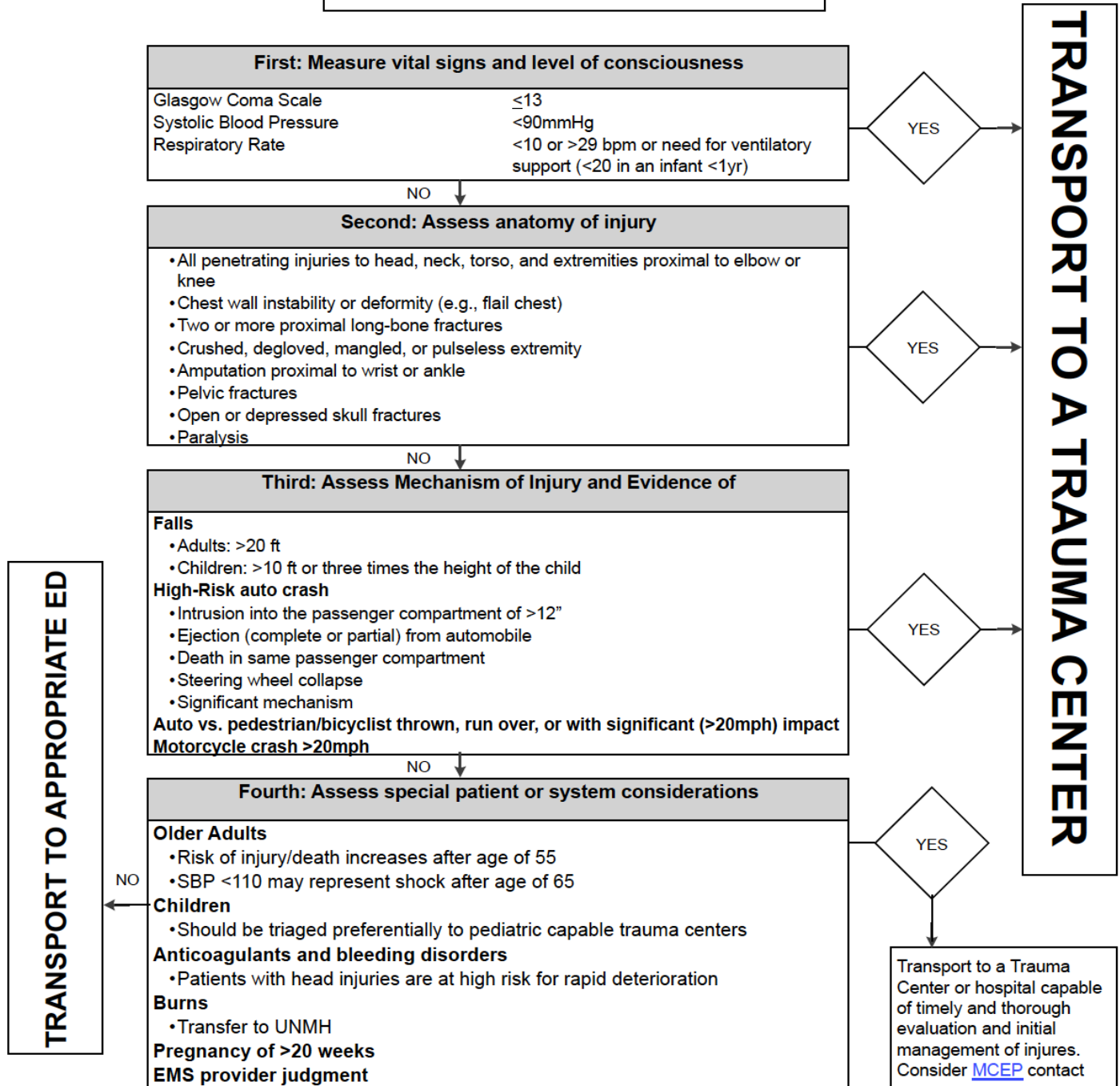
MEDICATION	TREATMENT GUIDELINES	DOSE	CONTRAINDICATIONS/ PRECAUTIONS
Naloxone Narcan	Ingestion / Poisoning / Overdose	Adult: 0.2 – 2 mg IM/IN/IV; may repeat as necessary Pediatric: 0.01 mg/kg IM/IN/IV; if ineffective, then subsequent dosing at 0.1 mg/kg up to 2 mg per dose; may repeat as necessary Not indicated for neonates/newly born	Contraindications: not indicated for neonates/newly born; otherwise, no contraindications in emergency setting
Nitroglycerin	Congestive Heart Failure Exacerbation Non-Traumatic Chest Pain / Acute Coronary Syndrome	Adult: 0.4mg SL every 5 minutes	Contraindications: hypotension <i>For chest pain only if pain not managed by Pain Management Guideline</i>
Norepinephrine Drip Levophed	Sepsis Infusion Pump Cardiogenic Shock	Adult: 2 – 10 mcg/min IV/IO; titrate to MAP 65 mmHg for adults Not indicated for pediatrics To make Norepinephrine Drip: Add 4 mg of Norepinephrine to 250 mL bag of Normal Saline	Contraindications: pediatrics
Normal Saline (0.9% Sodium Chloride)	Multiple Guidelines	10 mL/kg or 20 mL/kg starting bolus (depending on guideline) of Normal Saline or Lactated Ringers ; may repeat as clinically indicated in patients with hemodynamic instability	Contraindications: fluid overload <i>Administer minimum amount necessary to support hemodynamics and mental status</i> <i>Either Normal Saline or Lactated Ringers may be used initially; to prevent hyperchloremic acidosis, consider switching to Lactated Ringers if patient has received >4 L Normal Saline</i>
Ondansetron Zofran	Nausea	Adult: 4 - 8 mg IV/IM/PO Pediatric > 6 months: ≤ 25 kg: 2 mg IV/IM/PO > 25 kg: 4 mg IV/IM/PO	Contraindications: known QT prolongation
Oral Glucose	Diabetic Emergencies	Adult/Pediatric/Neonate Dose: up to 15 grams oral glucose PO	Contraindications: inability to swallow or protect airway
Oxygen	Multiple Guidelines	Utilize delivery method necessary to maintain pulse oximetry 90-94%. Use as little oxygen as necessary: <u>Adult & Pediatric:</u> Low Flow Nasal Cannula 1-2 L/min Moderate Flow Nasal Cannula 4-6 L/min High Flow Non-Rebreather 10-15 L/min	Contraindications: SpO ₂ ≥ 94% (except in case of suspected pneumothorax)
Oxytocin Pitocin	All Childbirth Guidelines	Initial Dose: 10 units IM within 1 minute of delivery of the infant If hemorrhage persists despite IM Oxytocin, add 10 units to 1 L of Normal Saline or Lactated Ringers and run wide open	Contraindications: incomplete delivery (in case of twins or greater, wait for all babies to be delivered)

MEDICATION	TREATMENT GUIDELINES	DOSE	CONTRAINDICATIONS/ PRECAUTIONS
Promethazine Phenergan	Nausea	Adult: 12.5 - 25 mg IV/IM Pediatric > 2 years: 0.25 - 0.5 mg/kg IV/IM to maximum dose of 25 mg	Contraindications: comatose patients, known QT prolongation, CNS depression due to drugs, Children <2 years old, or critically ill or dehydrated, breastfeeding
Sodium Bicarbonate	Adult Cardiac Arrest (Non-Traumatic) Adult Wide Complex Tachycardia Hyperkalemia Ingestion / Poisoning / Overdose	Adult: 50 mEq IV/IO every 3 - 5 minutes until QRS complex narrows Pediatric: 1 mEq/kg IV/O every 3 - 5 minutes until QRS complex narrows	Contraindications: none in emergency setting
Tetracaine Ophthalmic solution	Eye Injuries	All ages: 2 drops into the affected eye	Contraindications: penetrating eye injuries

APPENDIX G: FIELD TRAUMA TRIAGE

Effective 2/20/2020

Guidelines for Field Triage of Injured Patients



NOTES

- If patient meets criteria for transport to a trauma center but is not stable enough to bypass a closer non-trauma center, consider stopping at the closer hospital for stabilization

APPENDIX H: SANDOVAL REGIONAL MEDICAL CENTER LEVEL III TRAUMA CENTER DESIGNATION

Effective 2/15/2021

GENERAL

- Sandoval Regional Medical Center is working to become a Level III Trauma Center
- Since this may affect destination choice for certain trauma patients in Sandoval County, the following memo is included to help guide such destination choices until Level III Trauma Center designation is achieved and formal triage criteria are written



November 11, 2020

Greetings!

Sandoval Regional Medical Center (SRMC) has announced they are continuing their work as a developing Level III Trauma Center. As such, they are beginning to receive some trauma patients by EMS. Some patients that may now be appropriate for transport to SRMC include:

- Adult patients who have fallen from significant height, but who do not have any anatomic (i.e. multiple long bone injuries, impalement) or physiologic criteria (abnormal vital signs, severely altered mental status) that mandate transport to UNMH
- Adult patients involved in high-speed auto or motorcycle accidents—even with prolonged extrication time—but who do not have any anatomic (i.e. multiple long bone injuries, impalement) or physiologic criteria (abnormal vital signs, severely altered mental status) that mandate transport to UNMH
- Adult patients who have fallen off animals (horse, bull, rodeo accident, etc.) but who do not have any anatomic (i.e. multiple long bone injuries, impalement) or physiologic criteria (abnormal vital signs, severely altered mental status) that mandate transport to UNMH
- Penetrating trauma below the elbow or knee
- Isolated extremity fractures without signs of hemodynamic instability
- Isolated head trauma without significantly altered mental status
- Hanging victims

All multi-system trauma patients, patients with severely depressed mental status, any patient with a neurologic deficit after trauma, patients with obvious severe injuries, and those with unstable vital signs should still be transported to UNMH. Pregnant trauma patients, and pediatric trauma patients should preferentially be transported to UNMH.

I ask for your flexibility and patience with this process as SRMC refines the processes for trauma team activation. **Before transporting a trauma patient to SRMC, please make a radio report as early as possible in your transport.** If you are transporting a patient down 550 from the Jemez or Cuba area, please initiate radio contact well before the turn onto Paseo de Volcan, and before navigating towards SRMC if the call location is on I-25 or in Bernalillo, Placitas, or Santa Ana. In my conversations with the trauma surgeons and the Emergency Department Medical Director, they emphasized that the judgement EMS providers have shown in the past regarding which patients to transport to SRMC has been excellent, and they encourage this same discerning approach even as SRMC ramps up its trauma capabilities.

Please let me know if you have any questions or concerns. I would also love your feedback about your experience transporting trauma patients to SRMC when you do so. EMS input will be important to refining and improving the process as SRMC develops its capabilities with the goal of becoming a New Mexico Level III Trauma Center.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jenna M. B. White, MD, FAEMS'.

Jenna M. B. White, MD, FAEMS
jmwhite@salud.unm.edu
jwhite@sandovalcountynm.gov

APPENDIX I: REVISIONS AND ADDITIONS

Effective 2/15/2021

GENERAL

- The lists below detail the revisions and additions that have been made since the previous version of the UNM Rural EMS Treatment Guidelines, which were released 2/20/2020.
- Many of these revisions and additions were made based on input from EMS providers as they used the guidelines. Thank you to all the EMS providers who contributed to these revisions and additions. Please continue to alert us to errors, omissions, and points of confusion to help us with future revisions.

REVISIONS AND ADDITIONS AFFECTING MULTIPLE GUIDELINES

- Incorporated 2020 AHA ACLS and PALS guidelines updates
- Renamed several adult-specific guidelines as "Adult..." to reflect their adult-age specificity
- Changed fluid boluses to allow use of either Normal Saline or Lactated Ringers
- Clarified and standardized language and instructions common to multiple guidelines
- Clarified and standardized magnesium IV/IO infusion language and specified use of infusion pump
- Clarified and standardized cardioversion language
- Clarified that dexamethasone should be pushed slowly
- Standardized epinephrine mini-bolus language
- Standardized midazolam doses

REVISIONS AND ADDITIONS AFFECTING SPECIFIC GUIDELINES

Guideline	Revision/Addition
Abdominal / Flank Pain	<ul style="list-style-type: none"> ➤ Added reference to Nausea Guideline
Adult Cardiac Arrest (Non-traumatic)	<ul style="list-style-type: none"> ➤ Changed compressions to "100-120 bpm" in line with 2020 AHA ACLS guidelines ➤ Clarified respiratory rate in adult cardiac arrest
Adult Irregular Narrow Complex Tachycardia	<ul style="list-style-type: none"> ➤ Added Zoll joules doses ➤ Revised cardioversion starting joules dose
Adult Respiratory Distress	<ul style="list-style-type: none"> ➤ Diphenhydramine added for allergic reactions and anaphylaxis (inadvertently omitted from previous version) ➤ Added reference to Congestive Heart Failure Exacerbation Guideline ➤ Clarified that ipratropium bromide may be given by EMT and above ➤ Standardized magnesium IV/IO infusion language and specified use of infusion pump

REVISIONS AND ADDITIONS AFFECTING SPECIFIC GUIDELINES	
Guideline	Revision/Addition
Adult Symptomatic Bradycardia	➤ Revised atropine dose to 1mg based on 2020 AHA ACLS guidelines
Adult Wide Complex Tachycardia With A Pulse	<ul style="list-style-type: none"> ➤ Added Zoll joules doses ➤ Clarified magnesium dose to be given over 4 minutes ➤ Revised cardioversion starting joules dose
Airway Management	➤ Standardized respiratory rates based on 2020 AHA ACLS/PALS guidelines
Bites: Animals / Humans / Insects	➤ Clarified guideline and moved snakebite to its own guideline
Bites: Snakes	➤ Created new snakebite guideline
Contagious Respiratory Illness	➤ Added Contagious Respiratory Illness Guideline
Crush Injury	➤ Added pediatric Sodium Bicarbonate dosage
Eye Injuries	➤ Standardized reference to Tetracaine Ophthalmic Solution
Hyperkalemia	➤ Added Hyperkalemia Guideline (inadvertently omitted from previous version)
Infusion Pump	<ul style="list-style-type: none"> ➤ List of medications requiring pump clarified ➤ Moved mixing instructions to Appendix F: Medication Reference Guide
Ingestion / Poisoning / Overdose	<ul style="list-style-type: none"> ➤ Added clonidine ingestion as an indication for naloxone ➤ Adult atropine dosage for calcium channel blocker overdose corrected ➤ Calcium chloride and calcium gluconate doses corrected ➤ Clarified that naloxone maybe given by all providers ➤ Pediatric atropine dosage for organophosphate overdose corrected
Mechanical Ventilation	<ul style="list-style-type: none"> ➤ Added DOPE mnemonic ➤ Added instruction to switch PEEP to zero during CPR ➤ Changed "pressure relief" to "pressure relief/maximum pressure" to accommodate different ventilators
Mechanical Ventilation	➤ Standardized ventilation rates based on 2020 AHA ACLS/PALS guideline
Minor (Under 18) Treatment Considerations	➤ Added NMSA citation for emancipation criteria
Nausea	➤ Simplified pediatric ondansetron dosing
Neonatal Resuscitation	➤ Added emphasis to naloxone contraindication for newly born patients
Neonatal Resuscitation	➤ Replaced diagram with 2020 AHA NRP guideline (no changes except for date)
Non-traumatic Chest Pain / Acute Coronary Synrome	➤ Further emphasized preference for fentanyl over nitroglycerin for chest pain
Non-traumatic Chest Pain / Acute Coronary Synrome	➤ Removed remote ischemic conditioning
Pain Management	➤ Corrected adult ketorolac dose to 15 mg IV/IM (one time dose only)
Pain Management	➤ Standardized "low dose" midazolam
Pediatric Bradycardia	➤ Highlighted pediatric doses

REVISIONS AND ADDITIONS AFFECTING SPECIFIC GUIDELINES	
Guideline	Revision/Addition
Pediatric Cardiac Arrest (Non-traumatic)	➤ Added instructions to start compressions if patient has palpable pulse less than 60 bpm with signs of poor perfusion based on 2020 AHA PALS guidelines
Pediatric Cardiac Arrest (Non-traumatic)	➤ Added ventilation rate of 20-30/min based on 2020 AHA PALS guidelines
Pediatric Cardiac Arrest (Non-traumatic)	➤ Calcium gluconate dose corrected
Pediatric Cardiac Arrest (Non-traumatic)	➤ Clarified magnesium dose to be given over 4 minutes
Pediatric Narrow Complex Tachycardia	➤ Standardized language common with Pediatric Wide Complex Tachycardia With a Pulse Guideline
Pediatric Respiratory Distress	➤ Clarified steroids and diphenhydramine dosing
Pediatric Respiratory Distress	➤ Clarified that ipratropium bromide may be given by EMT and above
Pediatric Wide Complex Tachycardia With A Pulse	➤ Removed amiodarone, lidocaine, and magnesium based on 2020 AHA PALS guidelines
Pediatric Wide Complex Tachycardia With A Pulse	➤ Standardized language common with Pediatric Narrow Complex Tachycardia Guideline
Preeclampsia	➤ Clarified EMS definition of severe preeclampsia
Seizures / Convulsions	➤ Corrected status epilepticus duration to at least 5 minutes
Stroke Scales Checklist: CPHSS	➤ Stroke repetition question changed to "the best green chile is from New Mexico"
Termination Of Resuscitation Efforts	➤ Change "fatigued" to "exhausted"
Tracheostomy Tube Emergencies	➤ Clarified bougie/ET tube insertion process
Traumatic Cardiac Arrest	➤ Clarified references to Major Trauma Guideline

REVISIONS AND ADDITIONS TO APPENDICES	
Appendix E: Medication Formulary	➤ Added ketorolac to formulary (inadvertently omitted from previous version)
Appendix F: Medication Reference Guide	➤ Added new appendix with Medication Reference Guide
Appendix H: Sandoval Regional Medical Center Level III Trauma Center Designation	➤ Added new appendix with SRMC Level III Trauma Center development project information
Appendix I: Revisions and Additions	➤ Added new appendix detailing revisions and additions since the release of the previous version of the UNM Rural EMS Treatment Guidelines