Field Treatment Protocols

OSF Saint James John W Albrecht Medical Center EMS System 0257

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OSF Saint James John W Albrecht Medical Center
EMS System 0257

Field Treatment Protocols

Table of Contents

Medical Care Protocols

#M300 Routine Medical Care Protocol
#M310 Anaphylaxis Protocol
#M315 Allergic Reaction Protocol
#M320 Unconscious/Altered Level of Consciousness/Syncope Protocol
#M325 Diabetic Emergency Protocol
#M330 Stroke/CVA/TIA Protocol
#M335 Seizures Protocol
#M340 Suspected Poisoning – Organophosphate Protocol
#M345 Suspected Narcotic Drug Overdose Protocol
#M350 Medication Overdose or Poisoning Protocol
#M355 SEPSIS Protocol
#M360 Environmental – Near Drowning Protocol
#M365 Environmental- Radiation Exposure Protocol
#M370 Environmental – Hypothermia Protocol
#M375 Environmental – Frost Bite Protocol
#M380 Environmental – Heat Related Emergencies Protocol
#M390 Environmental – Bites and Envenomation's Protocol

Trauma Care Protocols

#T400 Routine Trauma Care Protocol
#T405 SMR Decision Tree/ Field Spinal Motion Restriction Protocol
#T410 Traumatic Arrest Protocol
#T415 Head Injury Protocol
#T420 Spinal Injury Protocol
#T425 Burns Thermal/Electrical/ Lightening Protocol
#T430 Burns Chemical Protocol
#T435 Extremity Injuries/Amputated Tissue Protocol
#T440 Hemorrhagic Shock Protocol
#T445 Crush/Suspension Protocol

General Care Protocols

#G500 Pain Control Protocol
#G505 Nausea/Vomiting Protocol
#G510 Chemical restraint Protocol
#G515 Rapid Sequence Intubation Protocol
#G520 Behavioral Health Patients Protocol

OB/GYN Care Protocols

#O600 Pre-Eclampsia/Eclampsia/Toxemia Protocol
#O605 Impending Delivery protocol
#O610 Childbirth: Normal Delivery Protocol
#O615 Severe Vaginal Hemorrhage (Postpartum or Miscarriage) protocol
#O620 Abnormal Deliveries – Prolapsed Cord protocol
#O625 Abnormal Deliveries – Breech Protocol

Abuse Protocols

#A700 Rape/Sexual Assault Protocol
#A705 Suspected Domestic/Neglect Protocol
#A710 Suspected Elder Abuse/Neglect Protocol

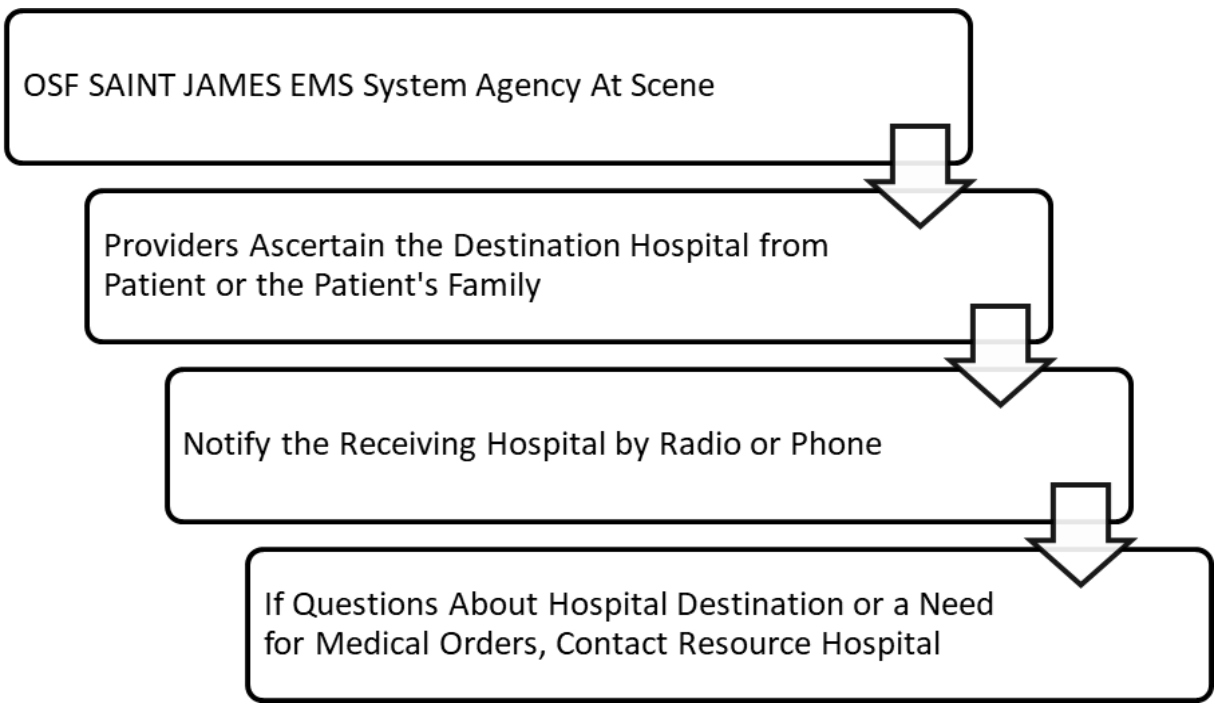
Version History

Acceptable Abbreviations

1°	first degree
2°	second degree
3°	third degree
♀	female
♂	male
@	at
abd	abdomen
AC	antecubital
ACS	acute coronary syndrome
AED	automated external defibrillator
AEMT	advanced emergency medical technician
a-fib	atrial fibrillation
a-flutter	atrial flutter
AHA	American Heart Association
ALS	advanced life support
AM	between 12 midnight & 12 noon
A.M.A.	against medical advice
AMI	acute myocardial infarction
amt	amount
ant	anterior
approx.	approximately
ARC	American Red Cross
AROM	active range of motion
ASA	aspirin (acetylsalicylic acid)
AV	arteriovenous (as in AV graft or AV shunt)
BLS	basic life support
BP or B/P	blood pressure
BPM	beats per minute
BVM	bag valve mask
°C	degrees Celsius
CABG	coronary artery bypass graft
CAO	conscious, alert, oriented
CCT	Critical Care Transport
CHF	congestive heart failure
CNS	central nervous system
c/o	complaint(s) of
COPD	chronic obstructive pulmonary disease
CP	chest pain
CPAP	continuous positive airway pressure
CPR	cardiopulmonary resuscitation
CVA	cerebrovascular accident (stroke)
Δ	change
D.A.S.	dead at scene
D/C	discontinue
dL	deciliter
DNR	do not resuscitate (order)
D.O.A.	dead on arrival
D5W/D10W	5%/10% dextrose in water
ECG or EKG	electrocardiogram
ECRN	emergency communications radio nurse
E.D.	emergency department
EMR	emergency medical responder
EMS	emergency medical services
EMT	emergency medical technician
EMT-B	emergency medical technician - basic
EMT-P	emergency medical technician - paramedic
ET or ETT	endotracheal tube
ETA	estimated time of arrival
ETOH	alcohol
°F	degrees Fahrenheit
F.B.	foreign body
FR	first responder
FR-D	first responder – defibrillation
ft	foot/ feet
GCS	Glasgow coma score
GERD	gastro esophageal reflux disease
GI	gastro-intestinal
GLF	ground-level fall
grav.	Gravida (number of pregnancies)
GSW	gunshot wound
gtts	drops
hx	history
ICU	intensive care unit
IDDM	insulin dependent diabetes mellitus
ILS	intermediate life support
IM	intramuscular
IN	intra-nasal
IO	intraosseous
irreg	irregular
IV	intravenous
IVP	intravenous push
J	Joules
JVD	jugular vein distention
kg	kilogram
l	liter
lb	pound
LLQ	left lower quadrant
LMP	last menstrual period
LSB	long spine board
LOC	loss of consciousness
lpm	liters per minute
LR	Lactated Ringer's
lt or Ⓛ	left
LUQ	left upper quadrant
MAE	moves all extremities

LLQ	left lower quadrant
LMP	last menstrual period
LSB	long spine board
LOC	loss of consciousness
lpm	liters per minute
LR	Lactated Ringer's
lt or Ⓛ	left
LUQ	left upper quadrant
MAE	moves all extremities
MCA	motorcycle accident
mcg	microgram
mEq	milliequivalent
mg	milligrams
M.I.	myocardial infarction
min	minute
ml	milliliter
mmHg	millimeters of mercury
MVC	motor vehicle collision
NC	nasal cannula
NIDDM	non-insulin dependent diabetes mellitus
NKA	no known allergies
NG	nasogastric
NRB	nonrebreather mask
NS	normal saline (0.9% saline)
NSR	normal sinus rhythm
NTG	nitroglycerin
N/V/D	nausea/ vomiting/ diarrhea
Ø	no, none
O_2	oxygen
O.D.	right eye
OD	overdose
OG	Orogastric
O.S.	left eye
O.U.	both eyes
P	pulse
para	children (number of live births)
PAT	paroxysmal atrial tachycardia
PCS	pediatric coma score
P.E.	physical exam
PE	pulmonary embolism
PEA	pulseless electrical activity
per	by way of
PERRL	pupils equal round and react to light
PM	between 12 noon & 12 midnight
po	per os (by mouth)
POLST	Physician Orders for Life Sustaining Treatment
pr	per rectal
PSVT	paroxysmal supraventricular tachycardia
pt.	patient
PTCA	percutaneous thrombolytic coronary angioplasty
PVC	premature ventricular contraction
PVD	peripheral vascular disease
Q or q	every
RR	respiratory rate
ROM	range of motion
ROSC	return of spontaneous circulation
rt or Ⓡ	right
RUQ	right upper quadrant
SBP	systolic blood pressure
SL	sublingual
SMO	standing medical order
SMR	spinal motion restriction
SpO2	saturation of peripheral oxygen (pulse oximetry)
SQ	subcutaneous
SVT	supraventricular tachycardia
T	temperature
TBSA	total body surface area
TKO	to keep open
TXA	Tranexamic Acid
VF	ventricular fibrillation
VT	ventricular tachycardia
X	times
y.o.	year old

Communications Flow



NO RESPONSE FROM RECEIVING HOSPITAL

If you receive no response from the destination hospital after repeated attempts, contact the Resource Hospital for patient report.

A written explanation (Incident Report Form) of each occurrence of radio communication failure must be completed by the involved prehospital provider and submitted to the OSF SAINT JAMES EMS System Office within 24 hours after the occurrence.

Patient Radio Report

Contact should be made with the receiving hospital in a timely manner and the following information about each patient should be relayed.

1) MERCI Identifier, highest level of care available on the unit (BLS, ILS, ALS)
2) Age, sex,
3) If the patient's immediate condition is life-threatening and/or the patient is hemodynamically unstable, please state that you have a critical patient.

4) Present complaint:
   a) Chief complaint/mechanism of injury/nature of illness.

5) Physical exam
   a) Loss of consciousness/mental status (GCS if trauma patient
   b) Pertinent exam findings
   c) Blood pressure
   d) Pulse
   e) Respirations/lung sounds

6) ECG/12-lead findings, if applicable and pertinent.

7) Treatment provided and responses to treatment

8) ETA to hospital (actual transport time).

Points to remember:

- Transmit patient's initials only if requested by receiving hospital. If a name is requested, call receiving hospital on a secure telephone line.
- Radio transmissions need to be concise and **include only pertinent information.**
- If patient's condition precludes gathering all the above information, an initial report may be made with pertinent information. Then contact with more information and an update in patient's condition.
- If patient meets trauma, STEMI, sepsis or stroke criteria, receiving hospital shall be notified immediately with an early notification.

Miscellaneous Guidelines

AV FISTULAS, SHUNTS, AND GRAFTS

- Can be utilized in cardiac arrest if an IO cannot be established. Refer to *AV Fistulas, Shunts, and Grafts* procedure.

BLIND AIRWAY INSERTION DEVICES (BIAD)

- Only BIADs approved by the EMS System may be utilized.

IV ATTEMPTS

- No more than two (2) peripheral IV attempts shall be made while at scene. Up to two (2) more attempts may be made while enroute, if indicated. Peripheral IVs include IVs initiated on the extremities.
- Except during actual entrapment, all vascular access attempts on "load and go" patients shall be made while enroute to the receiving facility.

BLOOD DRAWS

- Labs should be drawn on all patients with IV/IO access. Refer to *Blood Draw* procedure for further guidance.

EXTERNAL JUGULAR IV ACCESS

- External jugular vein access can be considered only after IO and IV attempts have been exhausted. External jugular access should be considered as a last resort. External jugular access is a paramedic-only skill.

INTRAOSSEOUS INFUSIONS

- Intraosseous access may only be attempted by advanced providers. Only two attempts to establish an intraosseous infusion may be made.
- Intraosseous access may be utilized initially on any hemodynamically unstable patient. Providers are limited to 1 peripheral IV attempt on hemodynamically unstable patients.
- Intraosseous access shall be utilized initially on cardiac arrest patients.
- Only intraosseous access devices approved by the EMS System may be utilized.

MEDICAL CONTROL

- ECRNs may give medical control orders after consultation with an attending physician.

Intranasal Medications

- All intranasal medications may not exceed 1mL per nare

ENDOTRACHEAL INTUBATION

- No more than 2 attempts per advanced provider or 3 attempts total per patient shall be made. (Except in RSI Protocol, only 1 attempt is allowed)
- An attempt is defined as the ET tube inserted into the oral cavity.
- Bougie®Blind Intubation assistance device may be used in intubation attempts**.**
- Only intubation assist devices approved by the EMS System may be utilized.

STANDARD PRECAUTIONS

EMS personnel should use common-sense precautions against transmission of infectious/contagious diseases when caring for any patient. Appropriate personal protective equipment must be worn when exposure to blood or other potentially infectious materials is reasonably anticipated. Reference the *Communicable Disease Policy* for more information. Providers shall be familiar with their agency's infection control policies and procedures.

Fluid Note

Lactated Ringers will be the primary fluid for our EMS system. However, in the event of a shortage, Normal Saline may be used as a substitute for all protocols that use Lactated Ringers. Expiring Saline may be substituted as needed.

All medications given via infusion must use Normal Saline or D5W (if compatible) to administer the infusion.

Drug Shortage - Dextrose

D10W can be substituted with D50 if D10W is on shortage or unavailable. The dose is 25g of D50 titrated to affect.

Abuse Hotline

Child Abuse – 1-800-252-2873
Elder (Home) – 1-866-800-1409

Abuse Hotline
Child Abuse – 1-800-252-2873
Elder (Home) – 1-866-800-1409
Elder (Supportive Living Facilities) – 1-800-226-0768
Elder (Nursing Home) – 1-800-252-4343

Lab Draw Order
The following order is recommended for drawing tubes

Blood Tube Color/Name	# of times to invert
Citrate Tube – Light Blue	8 – 10 times
BD SST – Red Speckled or Gold	5 times
Serum Tubes – Red	5 times
BD Rapid Serum Test (RST) – Orange	5 to 6 times
Heparin Tube – Dark Green	8 to 10 times
Lithium Heparin – Mint Green	8 to 10 times
EDTA – Lavender/Pink	8 to 10 times
Glucose – Gray	8 to 10 times

Glasgow Coma Scale

Glasgow Coma Scale		
Response	Scale	Score
Eye Opening Response	Eyes open spontaneously	4 Points
	Eyes open to verbal command, speech, or shout	3 Points
	Eyes open to pain (not applied to face)	2 Points
	No eye opening	1 Point
Verbal Response	Oriented	5 Points
	Confused conversation, but able to answer questions	4 Points
	Inappropriate responses, words discernible	3 Points
	Incomprehensible sounds or speech	2 Points
	No verbal response	1 Point
Motor Response	Obeys commands for movement	6 Points
	Purposeful movement to painful stimulus	5 Points
	Withdraws from pain	4 Points
	Abnormal (spastic) flexion, decorticate posture	3 Points
	Extensor (rigid) response, decerebrate posture	2 Points
	No motor response	1 Point

Cardiac/Chest Pain
Protocol # C100

EMR/ALL

BLS

ALS

Determine Level of Consciousness
Establish/Assess ABC's
Obtain Pulse ox reading
Administer supplimental O2 as needed
Obtain Vital Signs
SAMPLE History
Administer baby aspirin 324mg
Loosen restrictive clothing, place in position of comfort
Reassess every 5 minutes

BLS

12 lead/transmit to MD
Initiate ALS Intercept immediately

No STEMI

If initial systolic BP > 90mmhg. administer Nitroglycerin Sublingual
(May repeat every 5 min for 3x as long as Systolic BP 90mmhg)

MD Confirm STEMI

MD to advise if indication for Nitro is adequate
IF systolic BP > 90mmhg. administer Nitroglycerin Sublingual
(May repeat every 5 min for 3x as long as Systolic BP 90mmhg)

Meet ALS Intercept

ALS

Perform12 lead EKG
Determine if STEMI
Transmit to MC

No

Routine Cardiac Care
Initiate IV **Lactated Ringers** TKO (20ml/hr) OR saline lock. If systolic BP < 90mmHg and patient's lungs are clear, administer 250mL bolus IV.
Administer **NITROGLYCERIN- Tablet, paste or infusion drip**
IV Pump starting at 10-50mcg/min. Titrations by 5-10mcg/min every 3-5 minutes until pain is relieved. Max dose of 100mcg/min
Manage patient's pain using an appropriate dose of **FENTANYL** per *Pain Control* Protocol

Yes

STEMI ALERT to **Med Control & Receiving Facility**
Routine Cardiac Care
Obtain 2nd IV Site
Reassess Pt every 5 min
No Nitro for suspected Right sided or Posterior STEMI
Treat Hypotension
Look for CHF S&S,

Transport to appropriate facility

If Patient deteriorates follow appropriate protocols for suspected condition

NOTES;

•STEMI Alert Criteria:

○**ALS–** If a patient's EKG shows elevation of at least 1mm in two or more anatomically contiguous leads, call a **STEMI Alert**

•**ALS–** If patient's ECG shows global elevation (elevation in all leads), left bundle branch block, &/or paced rhythm, **consult MEDICAL CONTROL** for guidance on STEMI activation.

•**BLS/ ALS–** If the ECG meets STEMI criteria, administer **ASPIRIN** (total dose of 324mg) chewable tablets.

Medication Considerations

Medication	Route	Notes
ASPIRIN (ASA)	Oral	• DO NOT give **ASPIRIN** to a patient with a history of **ASPIRIN** allergy. • **ASPIRIN** shall not be administered if appropriate dose was given immediately prior to arrival. If **ASPIRIN** was administered immediately prior to arrival, but total dose was under 324mg, administer additional **ASPIRIN** to ensure cumulative dose of 324 mg.
NITROGLYCERIN	Sublingual	• Do not give **NITROGLYCERIN** to patients who have taken phosphodiesterase inhibitors (For example Viagra, Cialis, or Levitra) within the past 48 hours. Contact medical control for orders. • IF the heart rate is greater than 130 bpm, contact **MEDICAL CONTROL** prior to administering **NITROGLYCERIN** • **(ALS)** If patient has an inferior wall MI, consider withholding **NITROGLYCERIN**
	Intravenous	• Do not give **NITROGLYCERIN** to patients who have taken phosphodiesterase inhibitors (For example Viagra, Cialis, or Levitra) within the past 48 hours. Contact medical control for orders. • Contact medical control prior to administering **NITROGLYCERIN** if heart rate is greater than 130 • **(ALS)** If patient has an inferior wall MI, consider withholding **Nitroglycerin** • **NITROGLYCERIN** drips must be administered utilizing specialized tubing and a pump. No other medications may be administered through the **NITROGLYCERIN** tubing. • If the maximum dose of **NITROGLYCERIN** is reached and the patient continues to have chest pain, contact **MEDICAL CONTROL** for further instructions.
FENTANYL	Intravenous	• If the heart rate is greater than 130 bpm, contact **MEDICAL CONTROL** prior to administering **FENTANYL**. • Avoid IM administration

Cardiopulmonary Arrest

Protocol # C105

EMR/ALL

BLS

ALS

- Initiate CPR if not already in progress. Follow Adult Basic Life Support Algorithm (see below).
- Utilize BVM with 15lpm supplemental **OXYGEN**, if available.
- Check for pulse after 2 minutes. If no pulse, resume CPR.
- As soon as available, apply defibrillator/AED. Follow prompts on AED.
- Ensure transport EMS has been activated. Request advanced intercept early.
- Insert system approved blind insertion airway device (BIAD). **Once inserted, confirm tube placement using a combination of at least 3 of the following indicators**:
- -A consistent wave form on a capnometry reading device.
- -Auscultation of lung sounds bilaterally.
- -Absence of gurgling over the epigastrium
- -Presence of chest rise and fall with ventilation.
- If the BIAD is confirmed, ventilate using a BVM with 15lpm supplemental **OXYGEN** at a rate of 10 breaths per minute. If the BIAD is not confirmed, remove the device and continue ventilating at a rate of 30:2 using a BVM with 15lpm supplemental **OXYGEN**

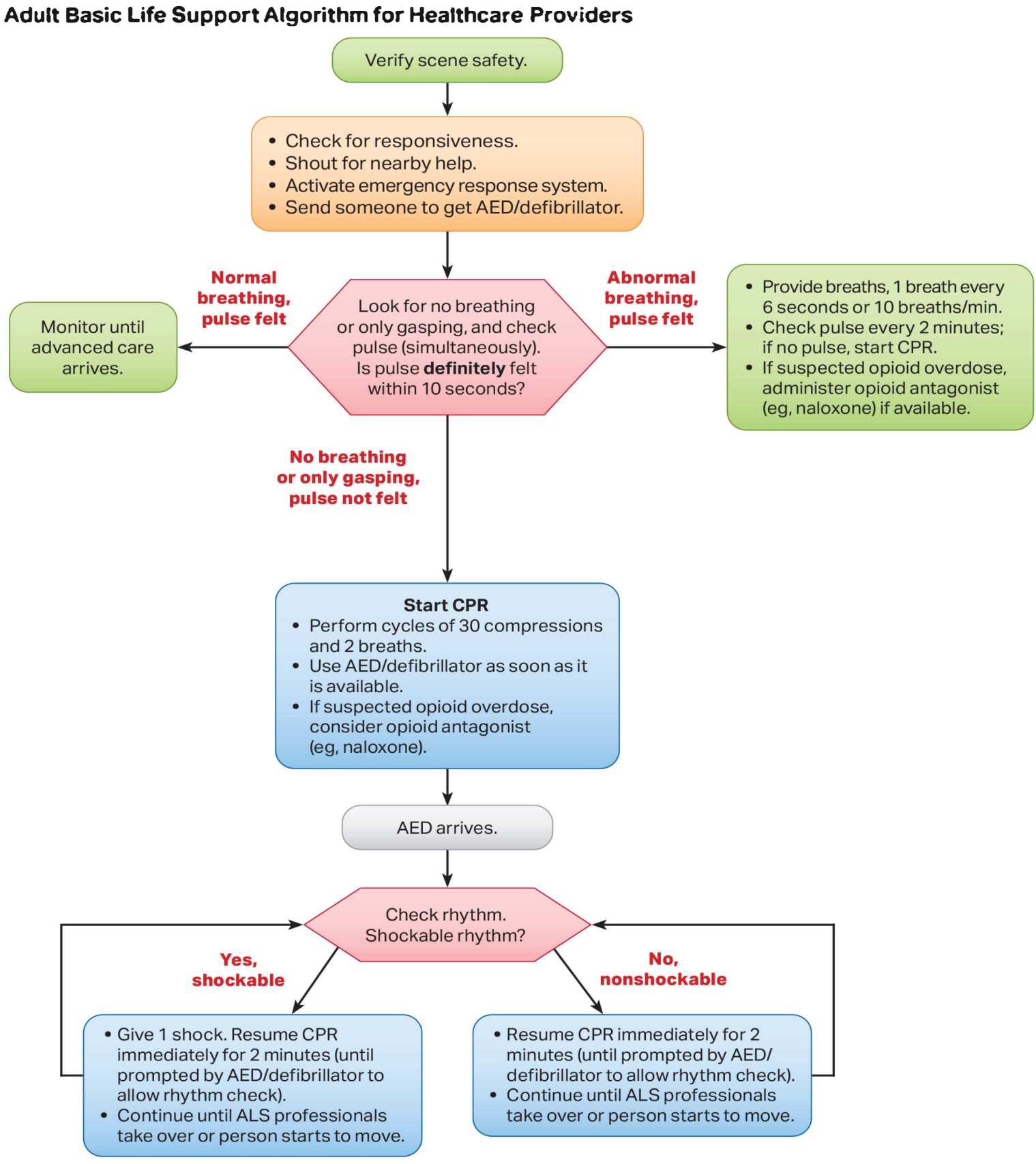
SEE ADULT BLS Algorithm
If ALS is less than 15 minutes, consider remaining on scene doing high quality CPR

SEE ADULT ALS Algorithm

NOTES:

- If ROSC has not been achieved after a reasonable resuscitation effort based on patient factors and event details (witness arrest, downtime, etc.), institute *Cardiac Resuscitation vs. Cease Efforts and Coroner Notification* policy. Resuscitation efforts must continue until a cease efforts order has been received from medical control.

BLS ALGORITHM # C105A



*If signs of puberty, treat as adult.

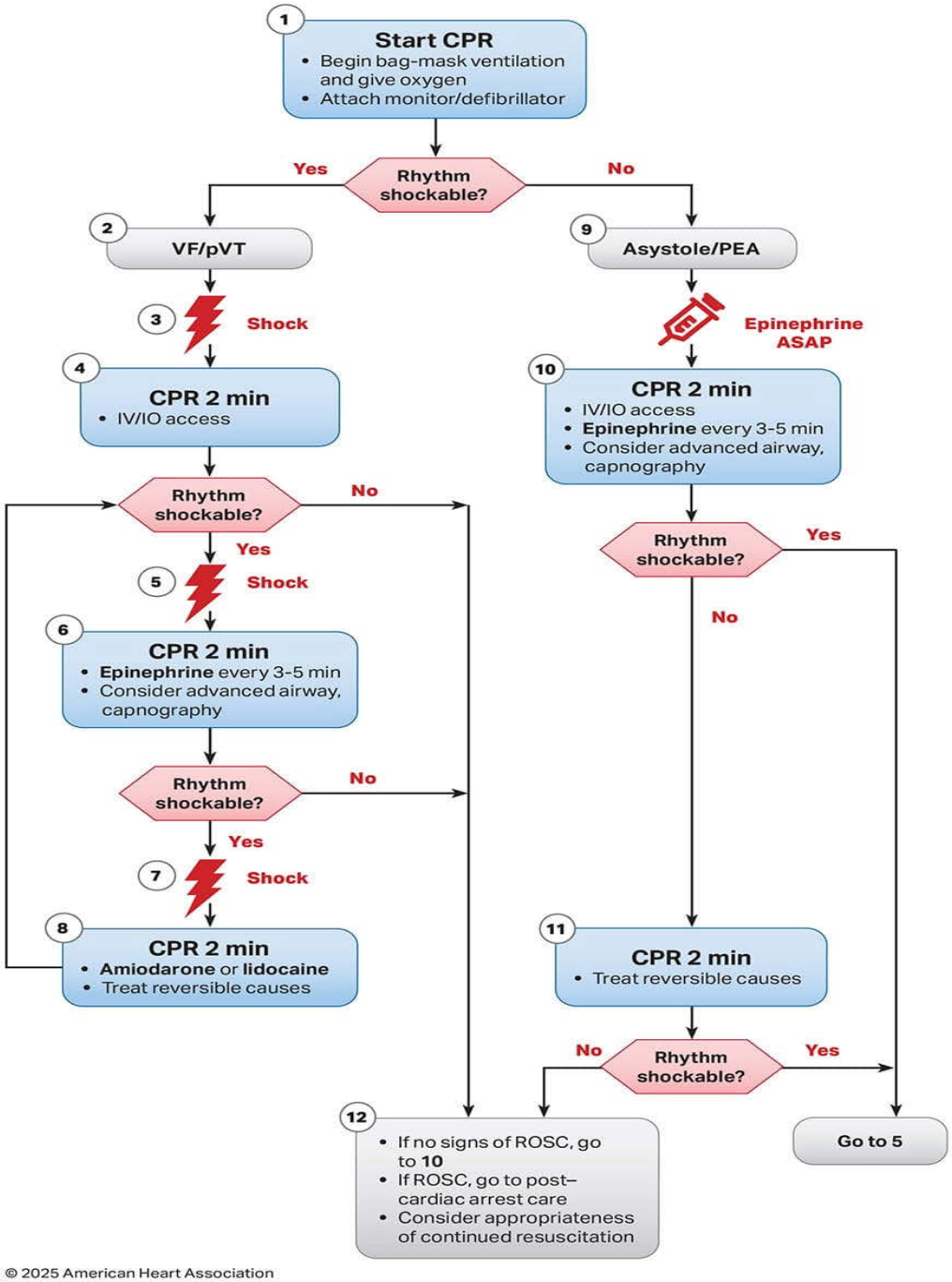
Cardiopulmonary Arrest
V-fib/V-tach/Asytole-PEA
Protocol # C110

EMR/BLS

ALS

- **EMR/BLS** follow Cardiopulmonary Arrest protocol **#105A**

Adult Cardiac Arrest Algorithm (VF/pVT/Asystole/PEA)



High-Quality CPR

- Push hard (at least 2 inches [5 cm]).
- Push fast (100-120/min) and allow complete chest recoil.
- Minimize interruptions in compressions.
- Avoid excessive ventilation.
- Change compressor every 2 minutes, or sooner if fatigued.
- If no advanced airway, use 30:2 compression-ventilation ratio.
- If advanced airway in place, give 1 breath every 6 seconds (10 breaths/min) with continuous chest compressions.
- Continuous waveform capnography
  - If $ETCO_2$ is low or decreasing, reassess CPR quality.

Shock Energy for Defibrillation

- **Biphasic**: Manufacturer recommendation (eg, initial dose of 120-200 J); if unknown, use maximum available. Second and subsequent doses should be equivalent, and higher doses may be considered.
- **Monophasic**: 360 J

Drug Therapy

- **Epinephrine IV/IO dose:** 1 mg every 3-5 minutes
- **Amiodarone IV/IO dose:** First dose: 300 mg bolus Second dose: 150 mg *or* **Lidocaine IV/IO dose:** First dose: 1-1.5 mg/kg Second dose: 0.5-0.75 mg/kg

Advanced Airway

- ET intubation or supraglottic advanced airway
- Continuous waveform capnography or capnometry to confirm and monitor ET tube placement

Reversible Causes

- **H**ypovolemia
- **H**ypoxia
- **H**ydrogen ion (acidosis)
- **H**ypo-/hyperkalemia
- **H**ypothermia
- **T**ension pneumothorax
- **T**amponade, cardiac
- **T**oxins
- **T**hrombosis, pulmonary
- **T**hrombosis, coronary

Notes:

- **Mag Sulfate** for Torsade's de pointes or digitalis toxicity. DO NOT GIVE WITH HX of RENAL FAILURE
- **Sodium Bicarb** for prolonged downtime >20 minutes,
- **Be sure to flush 50ml bolus after administration of all meds**
- Consider **Calcium Glucanate** 1g IV/IO for Hyperkalemia, hx of Chronic Kidney disease.
- Consider Contacting **Medical Control** for cases of Blunt PEA

POST-RETURN OF SPONTANEOUS CIRCULATION
(POST-ROSC 10 minute Cool Down)
Protocol # C115

EMR/EMT

- Confirm palpable pulse (matches monitor, if available)
- If not preformed, request advanced intercept.
- Maintain airway. If the patient does not have a blind insertion airway device (BIAD) and **is not breathing independently,** place an appropriately sized blind insertion airway device (BIAD). **Once inserted, confirm tube placement using a combination of at least 3 of the following indicators**:
  - A consistent wave form on a capnometry reading device.
  - Auscultation of lung sounds bilaterally.
  - Absence of gurgling over the epigastrium
  - Presence of chest rise and fall with ventilation.
- If the patient is not breathing or breathing < 10 breaths/min, provide ventilations at a rate of 10 breaths/min via BVM
- Titrate **OXYGEN** to maintain an SPO2 of 92-98%
- Obtain 12-lead ECG.
- Check blood glucose.
- Provider early hospital notification for post-cardiac arrest.
- Frequently reassess ABCs

ALS

ROSC Obtained

cool down time (for providers) of 10 min prior to moving pt to;
- **obtain vitals**
- **12 lead ekg to determine if STEMI**
- **Airway is secured, pt sedated if needed**

hemodynamic parameters (SBP > 90 mmHg, MAP > 65mmHg) *Hypotensive/Cardiogenic Shock*

NO

YES

- **Obstacles out of the way for smooth transport to Ambulance from current environment**

NOREPINEPHRINE infusion at 5mcg/min and titrate at 1mcg/min every 5 minutes to maintain a SBP ≥ 90mmHg. Max dose of 30 mcg/min

BP- >90mhg

No

CONTACT MEDICAL CONTROL

Transport Decision
- Determine most appropriate destination for continued pt care
- STEMI positive consider STEMI CAPABLE FACILITY

Continuous Pt Care:
- Check blood glucose.
- Place OG tube.
- Provider early hospital notification for post-cardiac arrest.
- Frequently reassess ABCs

Documentation:
During **Norepinephrine** administration, reassessment, and documentation of cardiovascular status (including a blood pressure and pulse) is required at a minimum of every 5 minutes & prior to each titration increase.

Cardiac Care

HYPOTENSIVE/CARDIOGENIC SHOCK
Protocol #C120

EMR/BLS/ALS

EMT

ALS

BP less than 90/mmhg systolic
Determine patient level of consciousness.
Establish/confirm airway patency.
Assess breathing and circulation.
Obtain pulse oximetry reading.
Administer supplemental **OXYGEN** per *Oxygen* .
Obtain vital signs.
Loosen patient's restrictive clothing.
Place patient in a position of comfort.
Ensure EMS transport has been activated. *(if non-transport)*
Obtain patient history (including DNR/POLST status).
Reassess patient every 5 minutes.

BLS –
Ensure ALS intercept
12 lead ekg – transmit to med/control

IV Access
Fluid Bolus 500ml
Cardiac monitor
Capnography
SAO2

<90mm/hg

NOREPINEPHRINE infusion at 5mcg/min and titrate at 1mcg/min every 5 minutes to maintain a SBP ≥ 90mmHg. Max dose of 30 mcg/min.

>90mmg

Re-assess every 5 min
Transport to appropriate facility

- **Push Dose Epinephrine** (1:100,000) (See Mixing Instructions). Administer 5-10mcg (10mcg/1ml) every 1-5 minutes to maintain a SBP ≥ 90mmhg or MAP of 65 for short transports (<10 minutes), while preparing norepinephrine drip, or if SBP is < 90mmhg or MAP < 65 following max titration of norepinephrine.
- During **Push Dose Epinephrine** administration, reassessment, and documentation of cardiovascular status (including a blood pressure and pulse) is required at a minimum of every 5 minutes & prior to each administration
- During **Norepinephrine** administration, reassessment, and documentation of cardiovascular status (including a blood pressure and pulse) is required at a minimum of every 5 minutes & prior to each titration increase

Cardiovascular
Hypertensive Emergency w/signs of end organ failure,
Protocol # C125

EMR/BLS/ALS

BLS

ALS

Systolic BP >220/diastolic>120mm-hg

Determine patient level of consciousness.
Establish/confirm airway patency.
Assess breathing and circulation.
Obtain pulse oximetry reading.
Administer supplemental **OXYGEN** per *Oxygen* .
Obtain vital signs.
Loosen patient's restrictive clothing.
Place patient in a position of comfort.
Ensure EMS transport has been activated. *(if non-transport)*
Obtain patient history (including DNR/POLST status).
Reassess patient every 5 minutes.

BLS
Obtain 12lead ekg
Initiate ALS intercept

ALS:
Reassess vitals
BP > 220/120
After 3 checks, 5 minutes apart **AND** signs of organ failure

YES

NO

IV Saline Lock
Cardiac Monitor
Capnography
CONTACT MEDICAL CONTROL – PHYSCIAN ORDERS for **Labetalol** 20mg IV OVER 2 min

IV Saline lock
Cardiac monitor
Transport
Reassess vitals every 10 min.

Signs of Organ Failure

- Headache with extreme dizziness
- altered mental status
- shortness of breath
- chest pain
- decreased urine output
- Vomiting
- changes in vision

Contraindications for **labetalo**l:

- heart failure,
- Dyslipidaemia
- peripheral vascular disease
- asthma or COPD**
- heart blocks

MEDICAL CONTROL MUST BE CONSULTED with DIRECT PHYCIANS ORDER - NO EXCEPTIONS

Manual BP MUST be obtained for ALL Pressures

CARDIAC
Wide Complex Tachycardiac – STABLE
Protocol # C130

EMR/EMT/ ALS

EMT

ALS

Determine Level of Consciousness
Establish/Assess ABC's
Obtain Pulse ox reading
Administer supplemental O2 as needed
Obtain Vital Signs
SAMPLE History
Administer baby aspirin 324mg
Loosen restrictive clothing, place in position of comfort
Reassess every 5 minutes

BLS
Obtained 12 lead EKG
Call for ALS Intercept

ALS
Obtain 12 lead EKG
Obtained IV access

MEET ALS Intercept

STABLE

Symptomatic

Monitor Transport to appropriate facility

Monomorphic wide complex tach, Consider **MEDICAL DIRECTION** for **Amiodarone** IV push order

NOTES:

- **STABLE:** Patient is conscious, alert, and oriented per their normal mentation AND hemodynamically stable
- **Symptomatic:** (Shortness of breath, mild to moderate chest pain, dizziness)

Cardiac Care
Wide Complex Tachycardiac – UNSTABLE
Protocol # C135

EMR/BLS/ ALS

BLS

ALS

Determine Level of Consciousness
Establish/Assess ABC's
Obtain Pulse ox reading
Administer supplemental O2 as needed
Obtain Vital Signs
SAMPLE History
Loosen restrictive clothing, place in position of comfort
Reassess every 5 minutes

BLS
Obtain 12 Lead EKG
Initiate ALS intercept
If available

BLS

ALS

Prime option

ALS
Time for sedation meds

YES

NO

Midazolam 0.05mg/kg
(Max dose of 5mg)
IV,IN,IO
If not altered
Ketamine 0.3mg/kg
Do not delay for sedation if critical

Synchronized Cardioversions
See chart below
to a Max of 360J
(3 shocks)

CONVERTED?

YES

NO

Option 2 only if intercept unavailable

Monitor and Transport to appropriate facility

Admin
Amiodarone bolus
150mg over 10 min

Amiodarone Drip
at 1mg/min

Chart 1B

Rhythm	Starting Energy
PSVT/A-Fib	50J
V-Tach w/Pulse	100J
Torsades	200J
Joule Progress – 50-100-200-360J (Biphasic)	

NOTES:
UNSTABLE: decreased level of consciousness, hypotension, severe chest pain, or severe pulmonary congestion

Midazolam - Potential for retrograde amnesia; consider administration post-synchronized cardioversion if the patient remains hemodynamically stable

Ketamine-a dissociative injected anesthetic (blocks sensory perception)

Cardiac
Narrow Complex Tachycardia – STABLE
(HR >220-patient age)
Protocol # C140

EMR/BLS/ ALS

BLS

ALS

Determine Level of Consciousness
Establish/Assess ABC's
Obtain Pulse ox reading
Administer supplemental O2 as needed
Obtain Vital Signs
SAMPLE History
Loosen restrictive clothing, place in position of comfort
Reassess every 5 minutes

BLS

BLS
Obtain
12 lead EKG
Initiate ALS
Intercept

Option 1

ALS

ALS
Obtain 12 lead EKG
Obtain IV access

ALS unavailable

<60 yr

>60yr

Monitor pt and transport to appropriate facility

Successful

Perform Valsalva maneuver

Unsuccessful

Consider IV 500ml bolus to rule out dehydration

No Change

Adenosine 6mg Rapid IV flush

Successful

Successful

Successful

2 Min

No Change
Contact Medical Control for possible Synchronized Cardioversion

Adenosine 12mg Rapid IV flush

2 Min

Adenosine 12mg Rapid IV flush

Notes:

- STABLE: Patient is Conscious, alert, and oriented per their normal mentation AND hemodynamically stable
- For patients with suspected atrial fibrillation or atrial flutter with a rapid ventricular response (RVR), contact medical control for guidance

Cardiac Care
Narrow Complex Tachycardia – UNSTABLE
(HR >220- patient age)
Protocol # C145

EMR/BLS/ ALS

BLS

ALS

Determine Level of Consciousness
Establish/Assess ABC's
Obtain Pulse ox reading
Administer supplemental O2 as needed
Obtain Vital Signs
SAMPLE History
Loosen restrictive clothing, place in position of comfort
Reassess every 5 minutes

BLS
Obtain a 12 Lead EKG
Initiate ALS intercept

Option 1

ALS
Determine Rhythm
Determine if UNSTABLE
Time for Sedation?

Yes

NO

Midazolam
0.05mg/kg (Max dose of 5mg)
IV,IN,IO
If not altered
Ketamine 0.3mg/kg
Do not delay for sedation if critical

Synchronized Cardioversions
See chart below to a Max of 360J (3 shocks)

Option 2 ONLY if ALS is unavailable

Monitor and Transport to appropriate facility

Chart 1B

Rhythm	Starting Energy
PSVT/A-Fib	50J
V-Tach w/Pulse	100J
Torsades	200J
Joule Progress – 50-100-200-360J (Biphasic)	

NOTES:
UNSTABLE: decreased level of consciousness, hypotension, severe chest pain, or severe pulmonary congestion

Midazolam - Potential for retrograde amnesia; consider administration post-synchronized cardioversion if the patient remains hemodynamically stable

Ketamine-a **dissociative** injected anesthetic (blocks sensory perception)

Cardiac Care Bradycardia - Stable (HR<60) Protocol # C150

EMR/BLS/ ALS

BLS

ALS

Determine Level of Consciousness
Establish/Assess ABC's
Obtain Pulse ox reading
Administer supplemental O2 as needed
Obtain Vital Signs
SAMPLE History
Loosen restrictive clothing, place in position of comfort
Reassess every 5 minutes

BLS/ALS
Obtain 12 lead EKG
Determine if symptomatic bradycardia

Monitor Pt
Transport to appropriate facility

NO

YES

BLS
Initiate ALS intercept

Consult MC if change in condition

ALS
Obtain IV
Fluid bolus
500ml

NOTES:

- STABLE: Patient is Conscious, alert, and oriented per their normal mentation AND hemodynamically stable.
- Bradycardia may be a normal finding.
- Symptomatic- Dizziness or lightheadedness Fainting or near-fainting episodes, Confusion or memory problems, Shortness of breath ,Chest pain (in some cases)

Cardiac Care Bradycardia-Symptomatic

(Sinus Bradycardia, 1st Degree Block, 2nd Degree Type 1 Block)

Protocol # C155

EMR/BLS/ ALS

BLS

ALS

Determine Level of Consciousness
Establish/Assess ABC's
Obtain Pulse ox reading
Administer supplemental O2 as needed
Obtain Vital Signs
SAMPLE History
Loosen restrictive clothing, place in position of comfort
Reassess every 5 minutes

BLS
Obtain 12 lead EKG
Determine if symptomatic bradycardia
(BLS Initiates ALS Intercept)

ALS on board
Determine STABLE/ UNSTABLE Bradycardia

STABLE → Obtain IV Access Fluid bolus if necessary Transport to appropriate facility

UNSTABLE → Obtain Vascular Access Atropine 1mg IV/IO If STEMI indicated, withhold Atropine and contact Med Control

Heart rate increase?

YES → Re-assess Pt Monitor and transport to appropriate facility

NO → No response 3-5 min **Atropine 1mg IV,IO** Can repeat after 3-5 minutes up to **MAX dose of 3mg total**

Does pt improve

YES → Re-assess Pt Monitor and transport to appropriate facility

NO → No response after 2 does of Atropine, **Begin Transcutaneous Pacing** Sedate with **Midazolam** 0.05mg/kg(max of 5mg) IV/ IO over two min

Contact Med Control, Transport to Appropriate facility

Medication Considerations

Atropine:
- Do not administer if a CVA/ neurological injury is suspected

Midazolam:
- Potential for retrograde amnesia; consider administration post synchronized Cardioversion if the pt is hemodynamically stable.

Ketamine:
- A dissociative injected anesthetic (blocks sensory perception)

Lactated Ringers:
- Consider 250ml bolus if pt remains hypotensive
- If pt remains hypotensive following bolus, refer to **Protocol # C120**

Notes:

- "Improvement" is defined as an increase in heart rate with a corresponding increase in mentation and hemodynamic stability (blood pressure).
- **UNSTABLE: decreased level of consciousness, hypotension, severe chest pain, or severe pulmonary congestion.**

Cardiac Care-Bradycardia-symptomatic (2nd Degree Block , 3rd Degree Block) Protocol # C160

EMR/BLS/ALS

BLS

ALS

Determine Level of Consciousness
Establish/Assess ABC's
Obtain Pulse ox reading
Administer supplemental O2 as needed
Obtain Vital Signs
SAMPLE History
Loosen restrictive clothing, place in position of comfort
Reassess every 5 minutes

BLS
Obtain 12 lead EKG
Determine if symptomatic bradycardia
(BLS Initiates ALS Intercept)

ALS On Board
- **Determine if Symptomatic Bradycardia**

NO
- IV Access
- Fluid bolus if necessary
- Transport to appropriate facility

YES
- **Consider Vascular Access if time**
- **Begin Transcutaneous Pacing**
- Sedate with **Midazolam** 0.05mg/kg(max of 5mg) IV/IO over two min if time
- If patient does not have an altered mental status, pre-sedation of **KETAMINE** 0.3 mg/Kg IV for pain control/anxiolysis

Look for signs of improvement

NO → Contact Medical Control for further orders

YES → Transport to closest appropriate facility

Medication Considerations

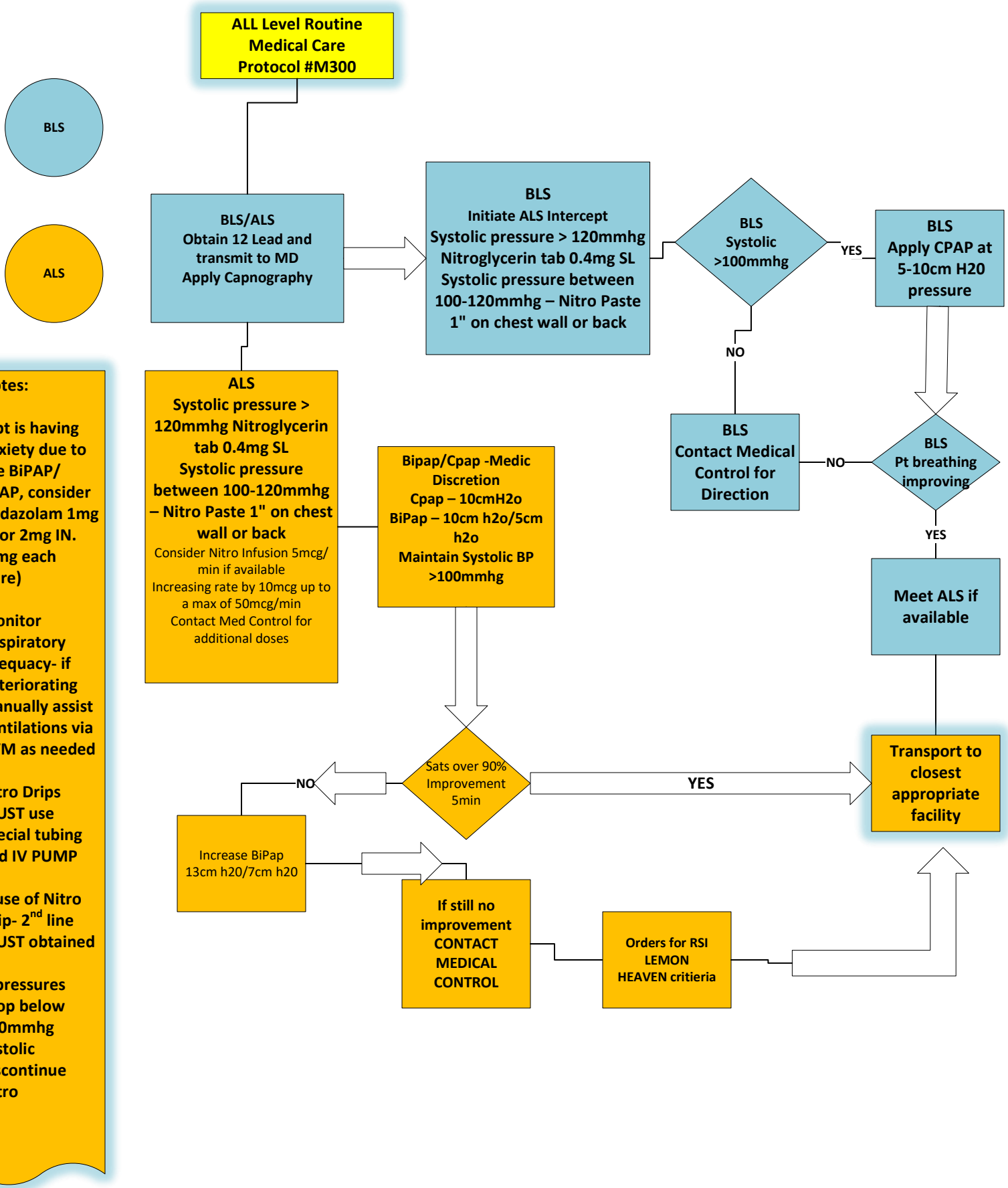
Midazolam:
- Potential for retrograde amnesia; consider administration post synchronized cardioversion if the pt is hemodynamically stable

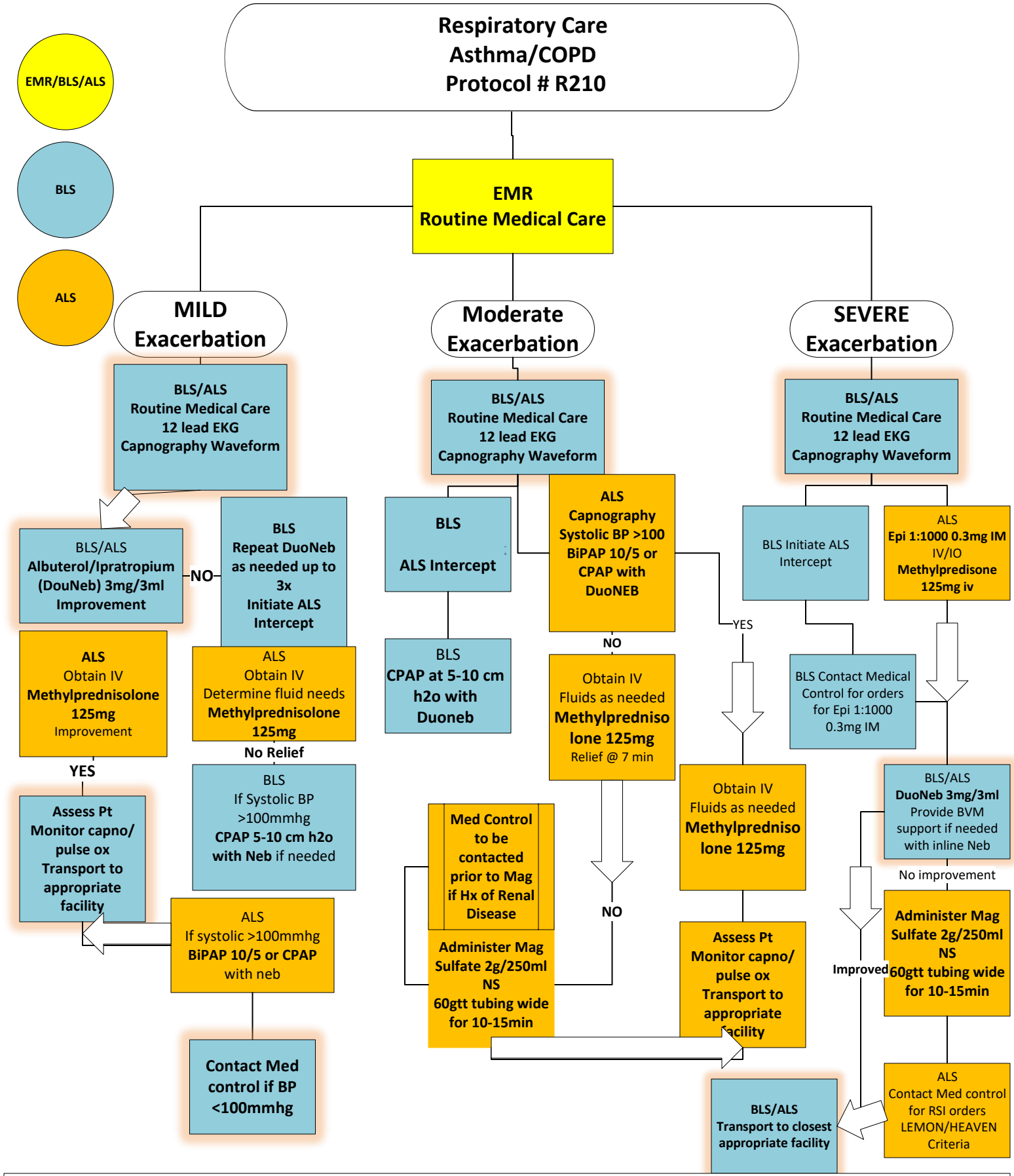
Ketamine:
- A dissociative injected anesthetic (blocks sensory perception)

Notes:

- "Improvement" is defined as an increase in heart rate with a corresponding increase in mentation and hemodynamic stability (blood pressure).
- **Symptomatic: decreased level of consciousness, hypotension, severe chest pain, or severe pulmonary congestion.**

Respiratory Care
Acute Pulmonary Edema/CHF
Protocol # R200





NOTES:

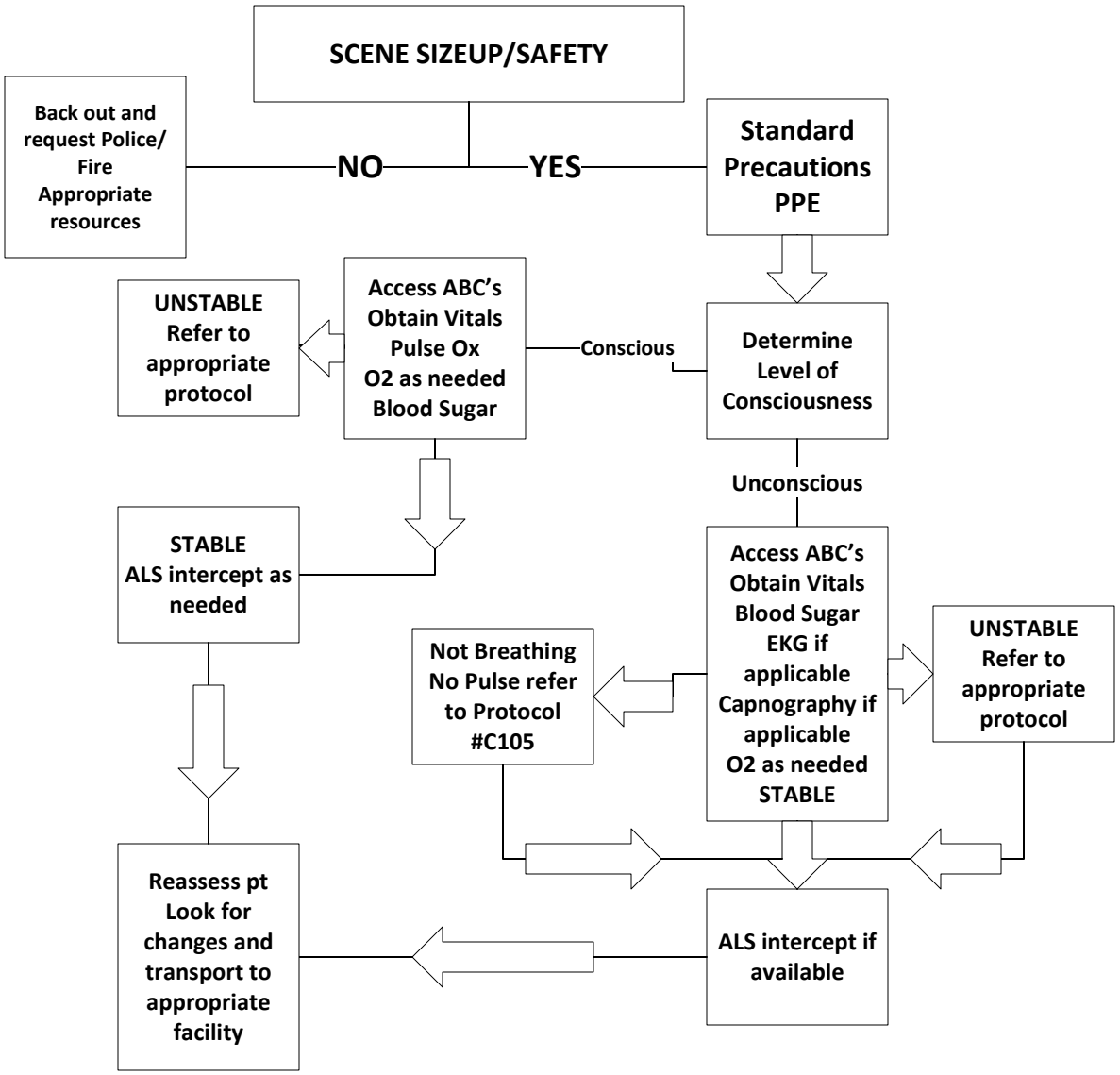
- **If patient requires BVM assist, use in-line nebulizer.**
- **If patient is allergic to Ipratropium, give only Albuterol treatment.**

MAGNESIUM SULFATE, 2 grams in 250 mL **Normal Saline bag** and infuse over 10-15 minutes (60 gtt tubing at wide open). Contact **MEDICAL CONTROL** prior to administration if **patient has a history of renal disease**.

- **Consider Midazolam 1mgIV or 2mg IN prior to BiPAP/CPAP for anxiety**

Routine Medical Care
Protocol # M300

ALL LEVELS



Notes:

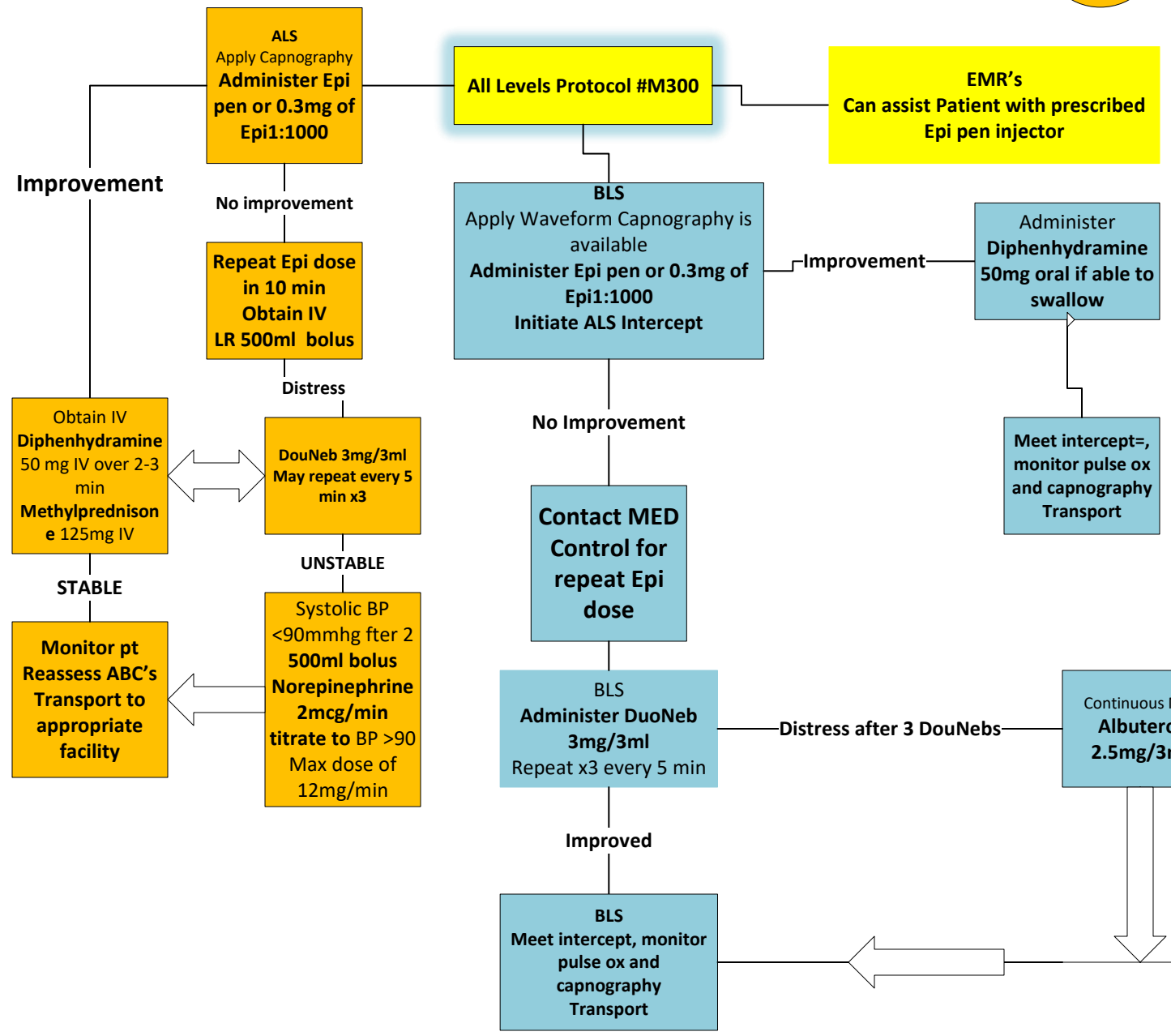
- ALS Obtain IV as needed
- Obtain
- SAMPLE History
- BLS/ALS Obtain 12 lead as needed
- Loosen restrictive clothing,
- Place in position of comfort
- Ensure transport dispatched
- Obtain History, (including DNR,POLST

EMR/BLS/ALS

BLS

Medical Care
Anaphylaxis
Protocol # M310

ALS



Notes:

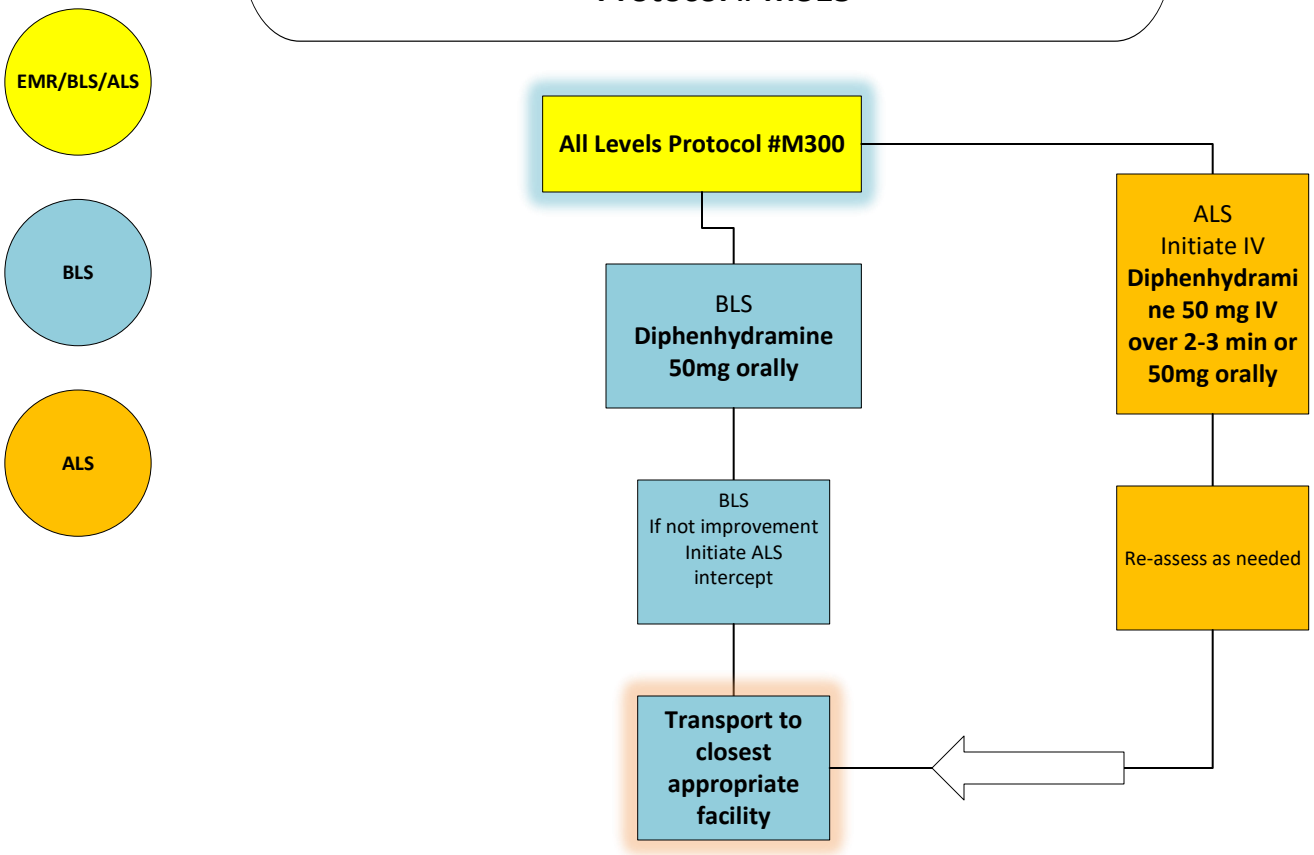
- Administer Norepinephrine through IV pump.
- Anaphylaxis is defined as hemodynamic instability and/or pending respiratory failure caused by an allergen.

- Onset: rapid, symptoms occur within minutes
  Severity: severe, potentially life-threatening
  Skin manifestations: flushing, hives, swelling of lips, tongue or throat

- Symptoms: affects multiple body systems (skin, respiratory, gastrointestinal, cardiovascular)

  Respiratory symptoms: difficulty breathing, wheezing, coughing
  Gastrointestinal symptoms: abdominal pain, vomiting, diarrhea
  Cardiovascular symptoms: dizziness, low blood pressure, irregular heartbeat

Medical Care
Allergic Reaction
Protocol # M315



NOTES:

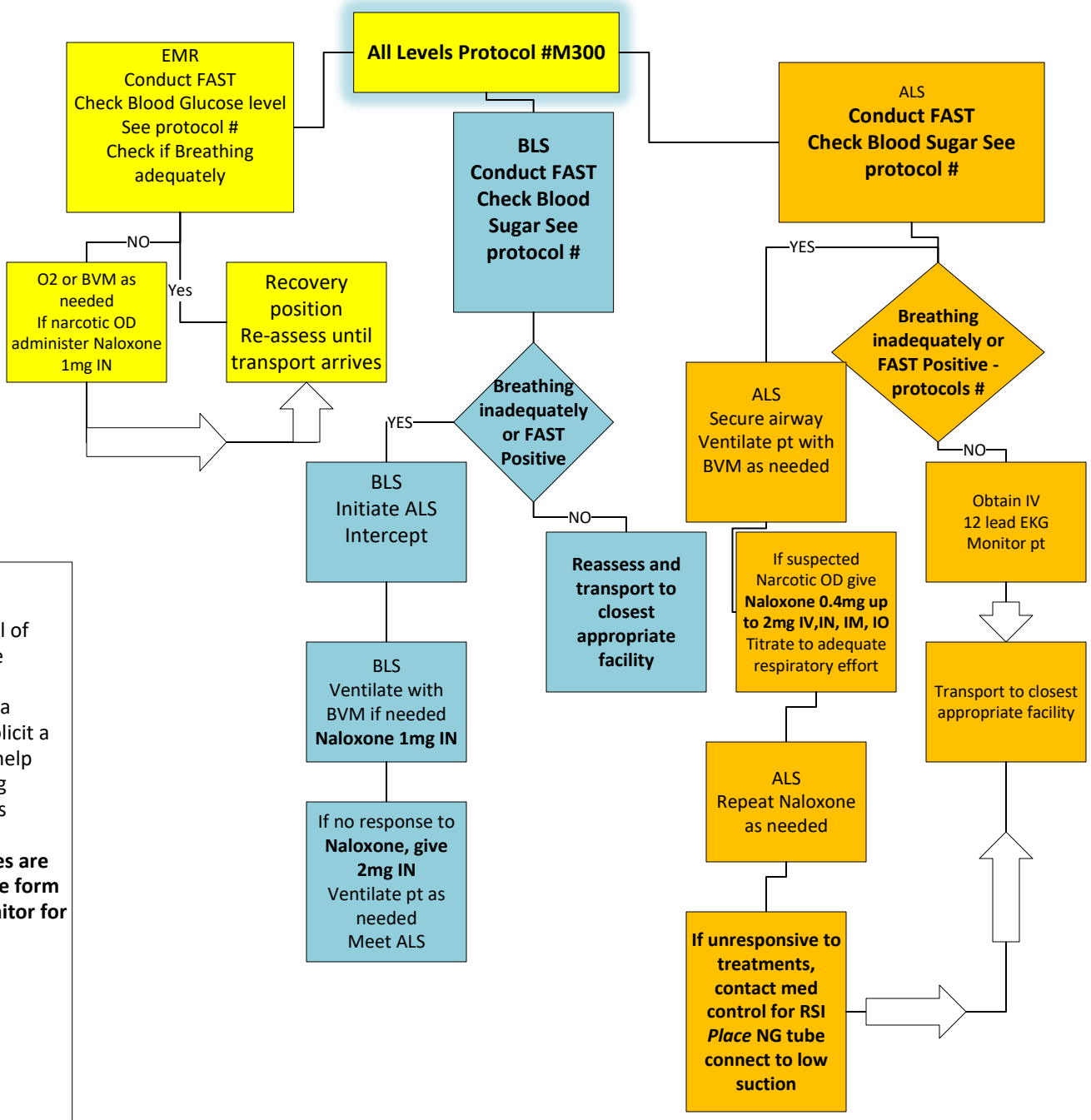
- Onset: Gradual, symptoms over time
- Severity: Mild to moderate
- Symptoms: localized to one area (Skin/Resp/Gastrointestinal)
  - Skin manifestions: rash, hives, itching
  - Respiratory symptoms: sneezing, nasal congestion, asthma symptoms
  - GI symptoms: abdominal pain, vomiting, diarrhea
  - Cardiovascular symptoms: none

Medical Care
Unconscious/Altered LEVEL OF Consciousness/Syncope
Protocol # M320

EMR

BLS

ALS



NOTES:

- Altered level of consciousness can be caused by numerous conditions. Perform a physical exam and solicit a complete history to help determine underlying cause. Treat cause as appropriate.
- **If capabilities are available, apply wave form capnography to monitor for respiratory** drive

Medical Care
Diabetic Emergency
Protocol #M325

EMR

BLS

ALS

EMR
Blood sugar <60mg/dl AND pt is conscious, administer ORAL GLUCOSE

EMR Repeat Glucose check

All Levels Protocol #M300

BLS
Blood sugar <60mg/dl AND Signs of hypoglycemia

BLS
Administer ORAL GLUCOSE

Pt conscious and can swallow

YES

No

BLS
Administer glucogon 2mg IN or 1mg IM

Pt still ALTERED LOC

NO

YES

Transport to closest appropriate facility

BLS Initiate ALS Intercept

ALS
Blood sugar <60mg/dl AND Signs of hypoglycemia

Pt conscious and can swallow

YES

ALS
Administer ORAL GLUCOSE

NO

Obtain IV
IO is critical

YES

ALS
D10W -titrate to effect wide open

NO

ALS
Glucogon 2mg IN or 1mg IM

ALS
If Blood Sugar is >250mg/dl
With signs of dehydration

Obtain IV

NO

YES

ALS LR with 500ml bolus

ALS Continuous cardiac Monitoring Transport to closest Appropriate facility

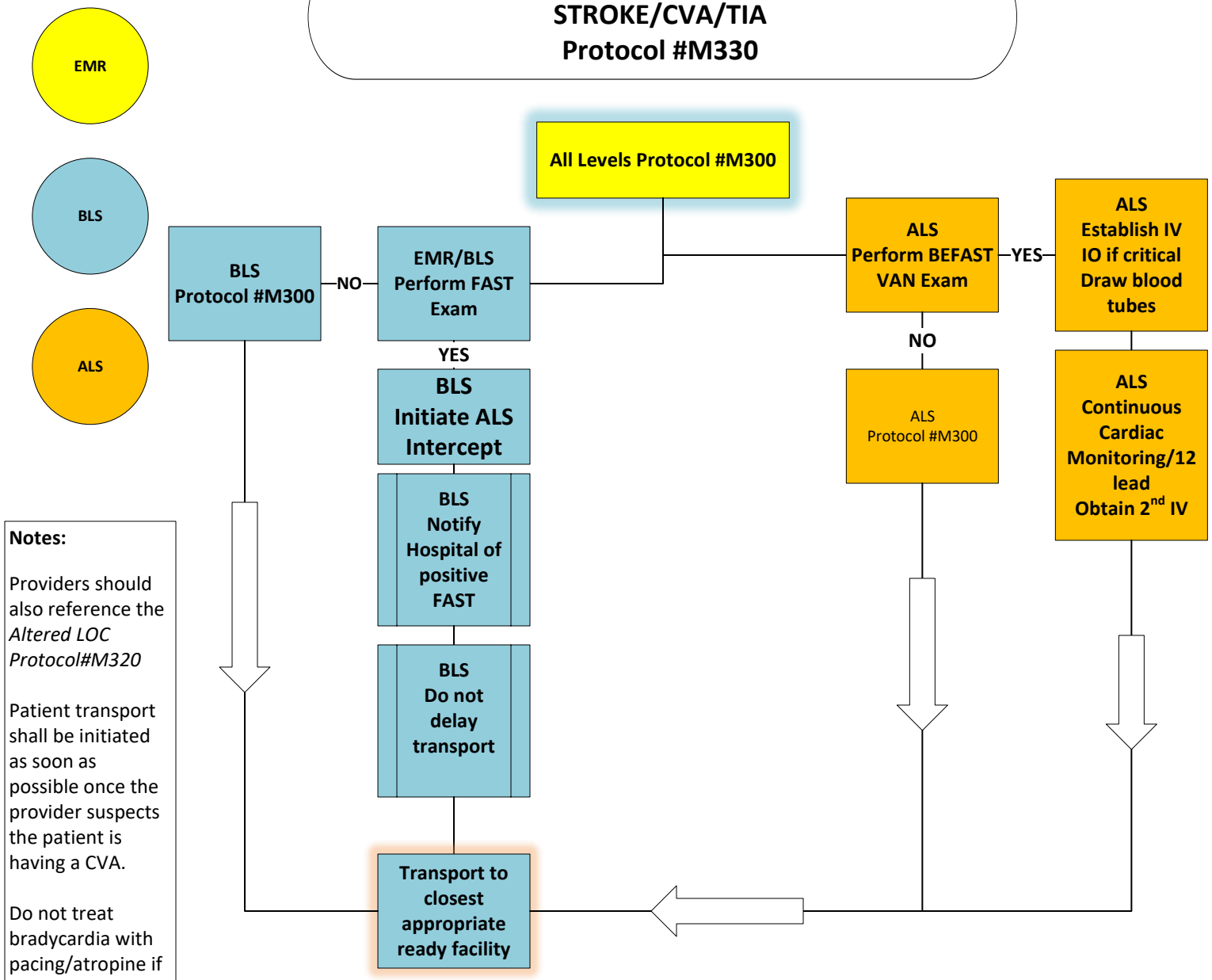
Notes:

- Providers should also reference *Altered Level of Consciousness Protocol*. #M320

- IO can be utilized in a diabetic emergency only after BOTH of the following have been met: at least 2 unsuccessful IV attempts AND glucagon has been administered with no improvement after 15 minutes
.

- **Note that you may use a 500ml bag of D10W, however, do not exceed 250ml infusion without reassessing blood glucose. May repeat additional 250ml infusion of D10W once if blood sugar remains under 60mg/dl.**

Medical Care
STROKE/CVA/TIA
Protocol #M330



Notes:

Providers should also reference the *Altered LOC Protocol#M320*

Patient transport shall be initiated as soon as possible once the provider suspects the patient is having a CVA.

Do not treat bradycardia with pacing/atropine if CVA is suspected.

Leave initial BEFAST,FAST/VAN stroke worksheet at receiving facility, copy should be uploaded to ESO.

Patients shall be transported to a stroke center. See *Patient Destination* policy.

FAST SCREEN

F – Facial Droop
A – ARMS (Drift, Weakness)
S – Speech Slurred
T – Time since last seen normal

VAN SCREEN

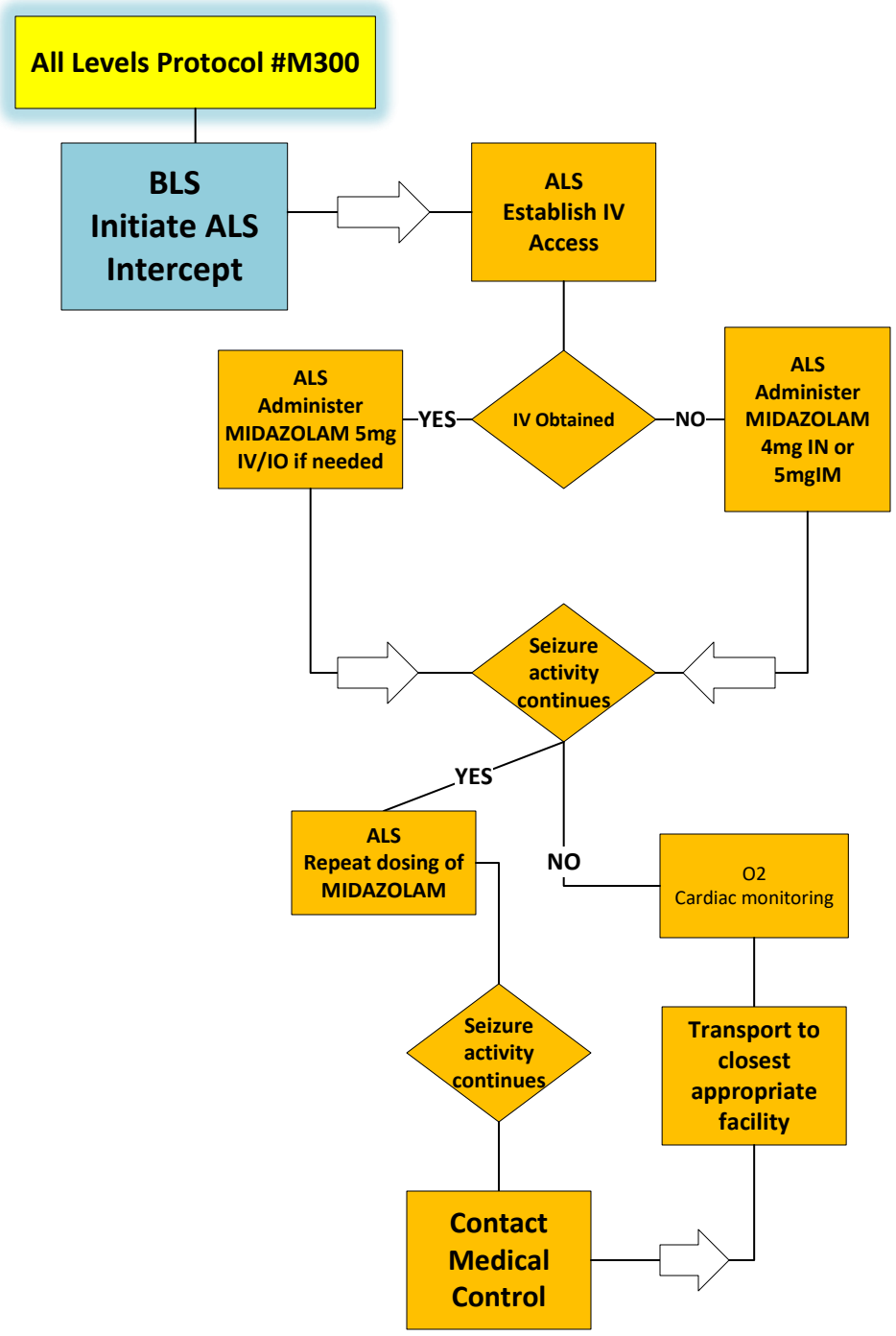
V- Visual Disturbance (Visual changes)
A – Aphasia (Unable to speak, not understand commands)
N – Neglect (Forced gaze, inability to track one side, unable to feel both sides at same time)

Medical Care
SEIZURES
Protocol #M335

EMR

BLS

ALS



Notes:

- Do not force anything between the teeth.

- Create safe surroundings for the patient (ensure patient's limbs and head do not strike other objects, remove moveable objects from around the patient, etc.). DO NOT RESTRAIN PATIENT.

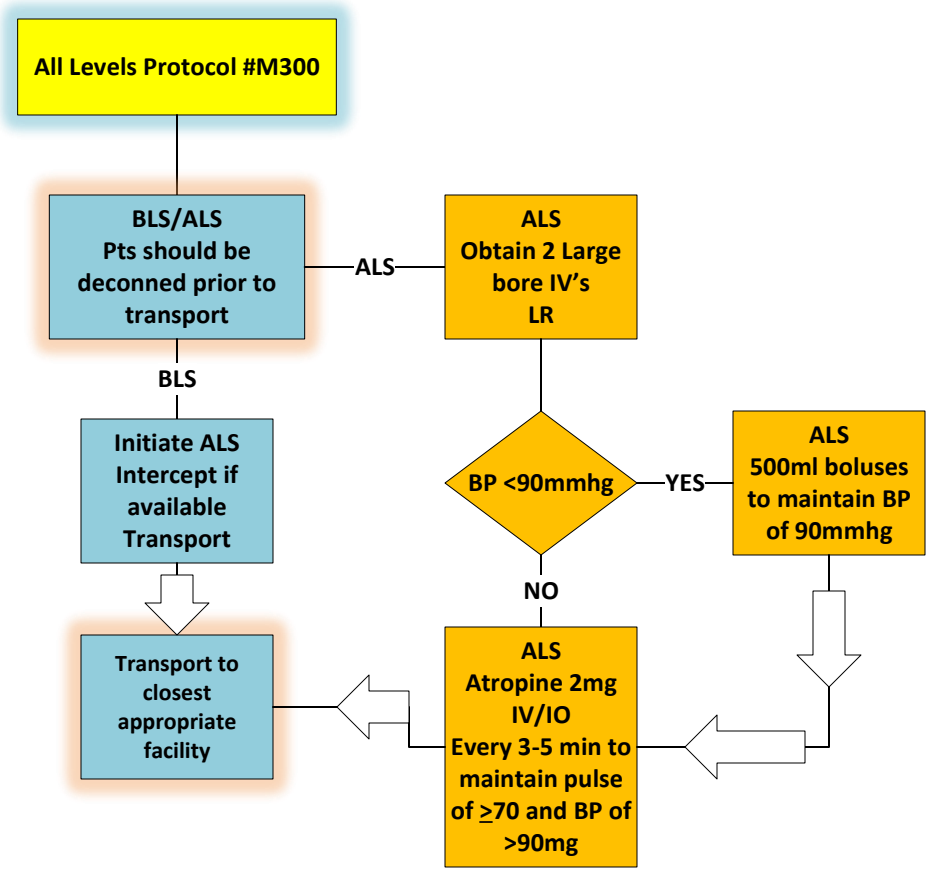
ALS: If definitive airway management is necessary and the patient has clenched teeth, consider RSI intubation protocol.

Medical Care
Suspected Poisoning -ORGANOPHOSPHATE
Protocol #M340

EMR

BLS

ALS



Notes:

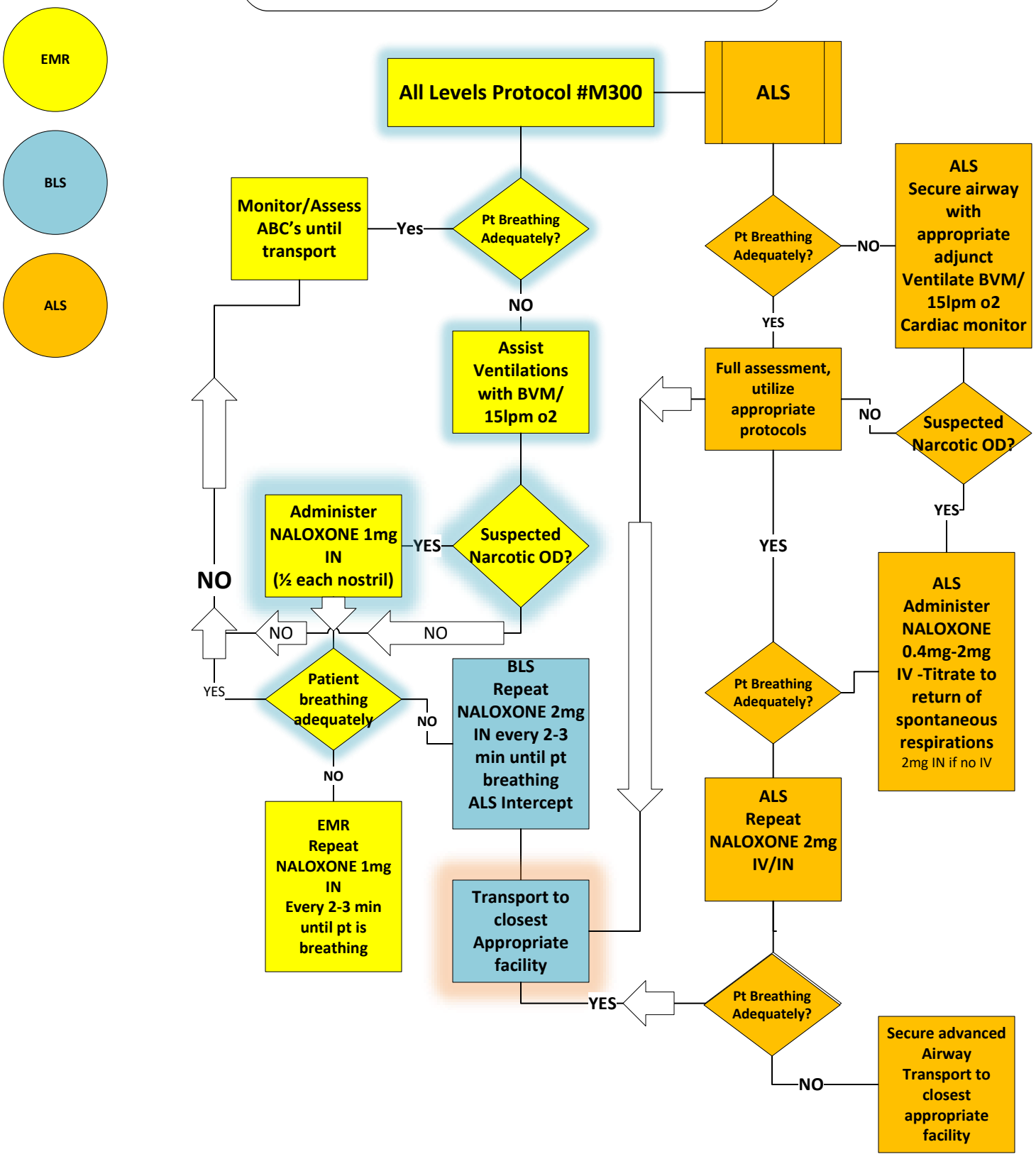
- Common organophosphates: insecticides (malathion, parathion, diazinon, ethion, etc.), herbicides (tribufos, merphos, etc.), nerve gases (sarin, soman, VX, etc.)

- Signs and symptoms of organophosphate poisoning can be remembered with the acronym SLUDGE: Salivation, Lacrimation, Urination, Defecation, Gastrointestinal upset, and Emesis.

- **ENSURE APPROPRIATE DECONTAMINATION. Do not transport patients prior to decontamination, as an enclosed environment with a contaminated patient can be extremely dangerous to providers. NOTIFY THE RECEIVING FACILITY AS SOON AS POSSIBLE FOR ACTIVATION OF THEIR DECONTAMINATION TEAM. DO NOT ENTER THE FACILITY UNLESS SPECIFICALLY ORDERED TO DO SO**.

- Consider calling for additional advanced units (for additional atropine) if prolonged patient contact time is anticipated.

Medical Care
Suspected Narcotic Drug Overdose
Protocol #M345



Medical Care
Medication Overdose or Poisoning
Protocol #M350

EMR

BLS

ALS

All Levels Protocol #M300

Aspirin, Tricyclic Antidepressants Digoxin OD

BLS
12 lead EKG
Initiate ALS
Intercept

ALS
Obtain IV
Administer
Sodium Bicarb
50mEq/IV

Calcium Channel Blocker OD

BLS
12 lead EKG
Initiate ALS
Intercept

ALS
Obtain IV
Administer
Calcium Gluconate 1g IV/IO Over 2-3 min

Betablocker OD

BLS
12 lead EKG
Initiate ALS
Intercept

ALS
Obtain IV
Administer
Glucagon 2mg IN or 1mg IM

Poisons

BLS
12 lead EKG
Initiate ALS
Intercept

ALS
Obtain IV

ALS
Be prepared to protect Airway
Monitor Vitals closely
Refer to Hypo/ Hypertension Protocols as needed.

Transport to closest appropriate facility

Notes:

Contact poison Control for suspected OD's
1-800-222-1222

•Common tricyclic drugs include: Amitriptyline (Elavil), Imipraminoxide (Imiprex), Lofepramine (Lomont), Nortriptyline (Pamelor).

- Consider prophylactic use of antiemetic (see Nausea and Vomiting Protocol)
- If stimulant overdose is suspected, monitor for hyperthermia, and treat per protocol.
- If Cyanide exposure is suspected, administer Oxygen at 15 LPM via non-rebreather.
- If Carbon Monoxide Poisoning is suspected, initiate C-Pap with peep of 5 cm H2O and place on cardiac monitor.
- Consult Medical and Poison Control if suspected Biological exposure is present.

Medical Care
SEPSIS
Protocol # M355

EMR

BLS

ALS

All Levels Protocol #M300

BLS
Obtain 12 lead EKG
Assess for SEPSI Criteria from Chart
If positive Initiate ALS Intercept

ALS
Obtain 12 lead EKG
Assess for SEPSI Criteria from Chart

SEPSIS POSITIVE

NO

Treat Symptoms with Appropriate protocols and transport to closest appropriate facility

YES

ALS
Early notification of SEPSIS alert

ALS
Obtain at least 1 large bore IV

ALS
Administer 1500ml of LR bolus to obtain BP of 90mmhg

Suspected pulmonary edema?

NO

ALS
May repeat boluses in rapid succession until target BP

YES

ALS
If pt hypotensive Administer NOREPINEPHERENE Infusion 2mcg/min to target BP of 90mmhg. Max dose 12mcg/min

If less than 15 min from ED consider PUSH DOSE EPI 1ml "push' till target bp

- **Notes:**
- Once SBP >90mmHg, titrate lactated ringers rate to approximately 17 ml/min (1L/hr). Note time lactated ringers drip initiated.
- Establish 2nd large bore IV if time allows.
- If the temperature is ≥104.0° F, place a cold pack in each armpit as well as the posterior neck. Remove the cold packs if shivering begins.

A Sepsis Alert should be called for the following:

- **Miami Sepsis Score 3-4 with signs or history of an infection**
- **End tidal CO_2 readings <25 mmHg are/can be correlated with increase lactic acid.**

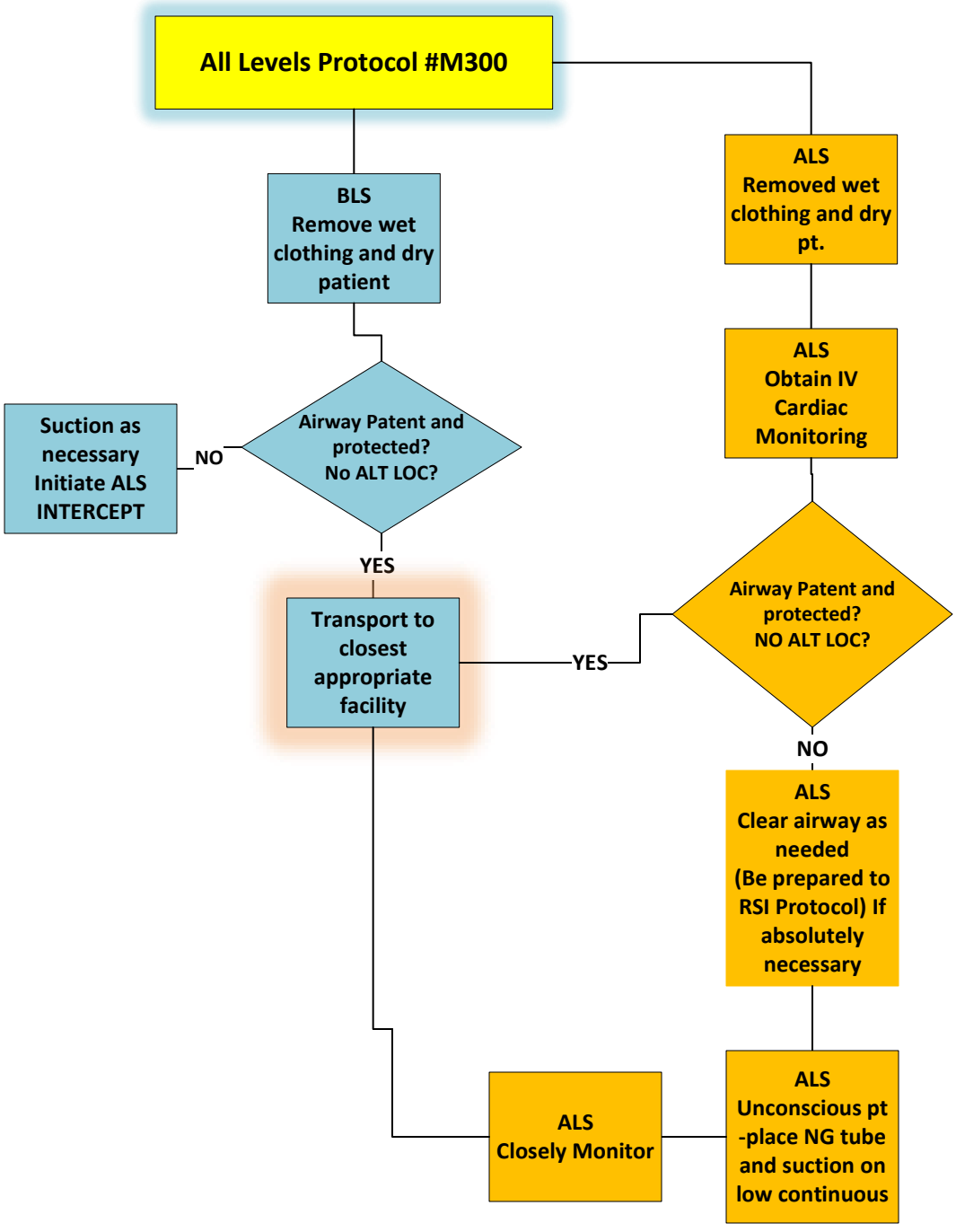
Miami Sepsis Score	
1	Body temp ≥ 38^c (100.4^f) or ≤ 35.5^c (96.0^f)
1	Respiratory rate ≥ 22/minute
2	Shock Index ≥ 0.7 (Heart rate/Systolic BP)
	Composite Score

EMR

BLS

ALS

Medical Care
Environmental – Near Drowning
Protocol # M360



Medical Care
Environmental- Radiation Exposure
Protocol # M365

EMR

BLS

ALS

All Levels Protocol #M300

BLS/ALS
Notify receiving facility ASAP
(Do NOT ENTER Facility without their permission)

ALS
Do NOT start IV unless absolutely necessary

Transport to closest appropriate facility

Medical Care
Environmental – Hypothermia
Protocol #M370

EMR

BLS

ALS

All Levels Protocol #M300

EMR/BLS
Protect from Heat loss
Handle very gently
Remove from cold environment

EMR/BLS
Admin Warm O2
Place heat paks on central pulse points(axillary, femoral)

BLS
Initiate ALS Intercept

ALS
All EMR/BLS Care
Cardiac Monitor
Obtain IV

ALS
Administer WARM LR 500ml bolus

Notes:

Mild Hypothermia:
- **Body Temperature: 95°F to 89.6°F (35°C to 32°C)**
- **Symptoms: Shivering, pale or cool skin, numbness in extremities, sluggish responses, drowsiness, or lethargic**
- **Other: Increased heart rate and breathing**

Moderate Hypothermia:
- **Body Temperature: 89.6°F to 82.4°F (32°C to 28°C)**
- **Symptoms: Shivering stops, fading in and out of consciousness, urinating more, slow heart rate and breathing, blood pressure drops**

Severe Hypothermia:
- **Body Temperature: Below 82.4°F (28°C)**
- **Symptoms: Full loss of consciousness and responsiveness, body fully cold to the touch with stiff muscles, slow, irregular and faint heartbeat and breathing**

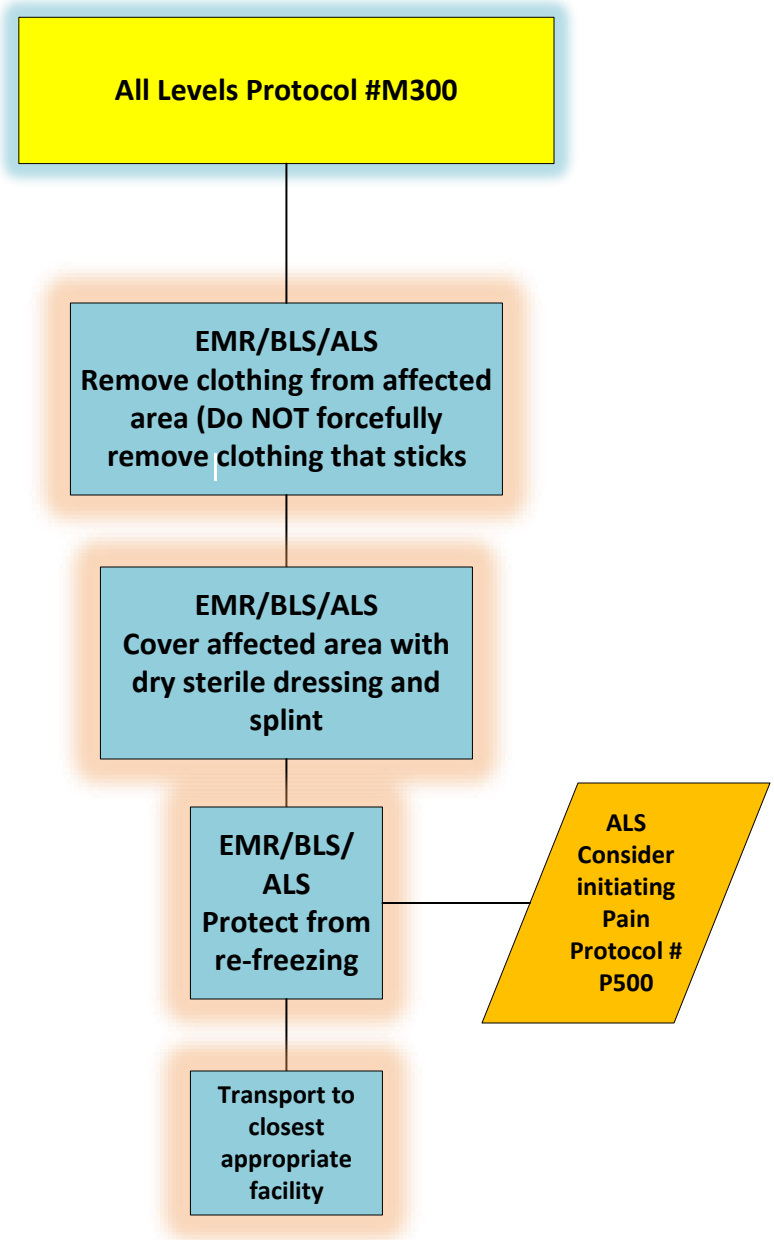
Profound Hypothermia (Apparent Death):
- **Body Temperature: Below 68°F (20°C)**
- **Symptoms: Unconscious, potential for cardiac arrest, and severe bradycardia**

EMR

BLS

ALS

Medical Care
Environmental– Frost Bite
Protocol #M375



EMR

BLS

ALS

Medical Care
Environmental – Heat Related Emergencies
Protocol #M380

Heat CRAMPS/ Tetany

All Levels Protocol #M300

EMR/BLS/ALS Move to cool environment

EMR/BLS/ ALS
Do NOT massage cramps

EMR/BLS/ALS Give 1-2 glasses of electrolyte containing solution (Gatorade, Power aid)

Transport to closest appropriate facility if needed

Heat Syncope

All Levels Protocol #M300

EMR/BLS/ALS Move to cool environment

BLS/ALS Obtain 12 lead EKG

Abnormal findings

YES

BLS Initiate ALS Intercept

ALS Cardiac Monitoring Obtain IV Fluids of LR 500ml bolus, then TKO

NO

Transport to closest appropriate facility

Heat Exhaustion

All Levels Protocol #M300

EMR/BLS/ALS Move to cool environment Obtain core temp

EMR/BLS/ALS Cool Pt with cold paks on central pulse points

BLS Obtain ALS if needed

ALS Continuous cardiac monitoring

ALS Obtain IV Fluids LR TKO after 500ml bolus

Transport to closest appropriate facility

HEAT STROKE

All Levels Protocol #M300

EMR/BLS/ALS Obtain CORE Temp

BLS Initiate ALS intercept Consider cold wet towels around the body

ALS Cardiac Monitor IV Fluids LR 500ml bolus

ALS If time permits consider ice water immersion or application if ABC's are not compromised

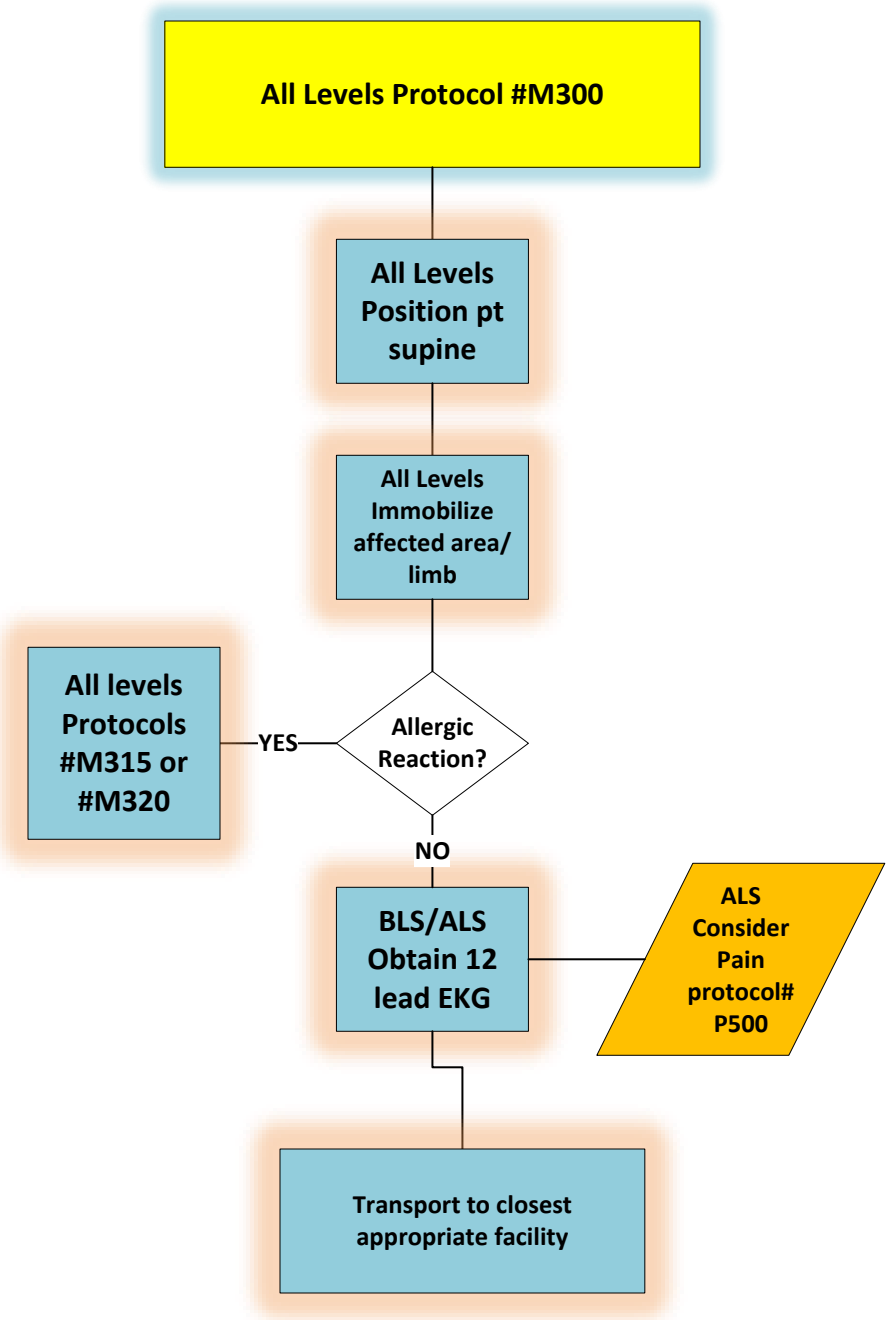
Transport to closest appropriate facility

Medical Care
Environmental – Bites and Envenomation's
Protocol # M390

EMR

BLS

ALS



Notes:

- **Do NOT attempt to suction the poison from the injection site.**

Trauma Care

ROUTINE TRAUMA CARE
Protocol # T400

FR/EMR
1. Perform scene survey (assess for hazards, number of patients, mechanism of injury, special extrication needs, etc.).
2. Consider spinal precautions if mechanism warrants (refer to *Spinal Immobilization* Procedure*)*.
3. Assess level of consciousness.
4. Establish/confirm airway patency.
5. Assess breathing and circulation.
6. Obtain pulse oximetry reading.
7. Administer supplemental OXYGEN per *Oxygen Administration* Procedure.
8. Identify and treat life threatening conditions.
9. Perform rapid trauma assessment.
10. Continually reassess patient until transport service arrives.

BLS
1. Perform scene survey (assess for hazards, number of patients, mechanism of injury, special extrication needs, etc.).
2. Consider spinal precautions if mechanism warrants (refer to *Spinal Immobilization* Procedure*)*.
3. Assess level of consciousness.
4. Establish/confirm airway patency.
5. Assess breathing and circulation.
6. Obtain pulse oximetry reading.
7. Administer supplemental OXYGEN per *Oxygen Administration* Procedure.
8. Identify and treat life threatening conditions.
9. Perform rapid trauma assessment.
10. If patient meets "load and go" criteria, transport as soon as possible (see *Load and Go* Protocol). Ensure advanced level intercept is activated if patient condition or mechanism warrants.
11. Manage non-life threatening injuries (if patient is unstable, do this while enroute and as time allows)
12. Take vital signs every 5 minutes (unstable) or 15 minutes (stable). Ensure a blood glucose measure is performed.
13. Perform 12-lead ECG (unstable or significant mechanism of injury).
14. Perform secondary trauma survey if time and patient condition allows.

ROUTINE TRAUMA CARE
Protocol # T400

ALS
1. Perform scene survey (assess for hazards, number of patients, mechanism of injury, special extrication needs, etc.).
2. Consider spinal precautions if mechanism warrants (refer to *Spinal Immobilization Procedure)*.
3. Assess level of consciousness.
4. Establish/ confirm airway patency.
5. Assess breathing and circulation.
6. Obtain pulse oximetry reading.
7. Administer supplemental OXYGEN per *Oxygen Administration* Procedure.
8. Identify and treat life threatening conditions.
9. Perform rapid trauma assessment.
10. If patient meets "load and go" criteria, transport as soon as possible (see *Load and Go* Protocol).
11. Manage non-life threatening injuries (if patient is unstable or mechanism warrants, all interventions shall be performed enroute).
12. Establish IV access.
a. If patient is unstable, establish two large-bore IVs and administer 500 ml LACTATED RINGERS boluses (total), titrate to maintain a systolic blood pressure of 80 mmHg. Repeat 500ml bolus as needed to maintain systolic blood pressure. IO should be used in these patients if first attempt at IV access is unsuccessful.
b. If patient is stable, but a significant mechanism of injury is present, establish IV access.
c. If patient is stable and a low mechanism of injury is present, IV access may be established.
13. Take vital signs every 5 minutes (unstable) or 15 minutes (stable). Ensure a blood glucose measure is performed.
14. Perform 12-lead ECG and continuous cardiac monitoring (unstable, significant mechanism of injury, or trauma-induced chest pain).
15. Consider initiating *Pain Control* Protocol.
16. Perform secondary trauma survey if time and patient conditions allow

Notes:

- Consider application of system approved Pelvic binder for pelvic fractures

ALL LEVELS

Trauma Care
SMR Decision Tree/Field Spinal Motion Restriction
Protocol # T405

SMR DECISION TREE

Clinical indications: patients with traumatic neck/back pain, head injury or facial trauma, or with a significant or uncertain MOI or high index of suspicion for spinal trauma (e.g. axial load (diving), MVC* or bicycle, falls…). In high-risk patients (e.g. elderly, osteoporotic, degenerative disorders) less forceful mechanism can cause significant injuries.

Does the patient meet field criteria?

YES → Apply full spinal motion restriction

**Exception: penetrating trauma without neurological deficits *

NO → Splint cervical spine using an appropriately sized c-collar

Level 1 Trauma

Blunt or penetrating trauma with unstable vital signs AND/OR

- Hemodynamic compromise (BP<90)
- Respiratory Compromise (RR<10 or >29)
- Altered Mental Status

Specific Anatomic Injuries

- Penetrating trauma proximal to elbow/knee
- Flail chest
- 2+ long bone fractures
- Crushed/Degloved injury
- Combined Trauma with >20% TBSA burns
- Amputation proximal to ankle or wrist
- Open/Depressed Skull Fx

Level 2 Trauma

- GCS <14
- Falls
  - Adults >20 ft; Peds >10 ft or 2-3 times height of child
- High risk auto crash
  - >12 in, intrusion into passenger compartment
  - Ejection
  - Death in same compartment
  - Auto -vs- Pedestrian
- Motorcycle Crash >20 mph

EMR

BLS

ALS

Trauma Care
Traumatic ARREST
Protocol #T410

EMS witnessed cardiac arrest due to trauma
OR
Trauma patient not meeting criteria for termination per Dead on Scene Protocol

EMR/BLS CPR if witnessed

Medical cardiac arrest suspected by low mechanism of injury:
- low speed MVC
- hanging
- drowning/asphyxia
Protocol # C105

Withold compressions and simultaneously perform Life-Saving Interventions.

Life Saving Interventions

Control massive hemorrhage
- Direct pressure/tourniquet for external hemorrhage
- Pelvic binder for suspected pelvic fracture
- Provide high flow oxygenation and if needed provide assisted ventilation with BVM (igel or ET preferred)
- 2 large bore IV/proximal IO access
- Volume replacement (max 40 cc/kg or 2L for adults)
- Consider bilateral chest decompression

Consider withdrawal of efforts per Dead on Scene Protocol if no signs of life after Life Saving Interventions

Administer TXA 1g IVP enroute to the Emergency Department if enough resources.
If pulseless start or resume compressions

Transport to closest appropriate facility
Preferred Level 1 Trauma Center

Note:
The initial cardiac rhythm for most patients in survivable traumatic cardiac arrest is pulseless electrical activity (PEA). This rhythm in traumatic cardiac arrest usually represents a very low output state caused by an obstruction (e.g. pneumothorax, pericardial tamponade) or hypovolemia (blood loss anemia), rather than a true "cardiac" arrest.

In cardiac arrest caused by hypovolemia, cardiac tamponade, or tension pneumothorax, chest compressions are unlikely to be effective. Subsequently, chest compressions take a lower priority than the immediate treatment of reversible causes (e.g. needle decompression, airway management, controlling hemorrhage, etc.). Performing chest compressions can not only impair and hinder the performance of life saving interventions in trauma patients, they can - in some patients - cause significant harm; in a patient with extensive chest or rib injuries, for example, chest compressions may cause direct injury to underlying organs.

In cardiac arrest due to trauma, hemorrhage control, the restoration of circulating blood volume, opening the airway, and relieving suspected tension pneumothorax should take priority over conventional cardiopulmonary resuscitation (CPR) (i.e. external chest compressions, defibrillation, and adrenaline) unless a medical cause for cardiac arrest is reasonably suspected to have preceded the traumatic event.

This guideline is for trauma patients that are about to lose pulses or have lost pulses in front of EMS. It does not apply to those patients who would meet the criteria for termination based on the Dead on Scene Protocol.

Trauma Care
Head injury
Protocol # T415

EMR

BLS

ALS

•100% OXYGEN
•Assist ventilations as needed
•Vomiting precautions
•Immobilize C-spine
•Routine Trauma Care

Alert

YES

Monitor pt closely
Transport to closest appropriate facility

NO

UNRESPONSIVE TO VOICE AND PAIN

•Pupil(s) dilated
•Signs of increased intracranial pressure and/or
•Glasgow Coma Score 8 or less

BLS Obtain ALS Intercept

ALS
Refer to RSI Protocol if indicated
Before RSI be sure BP is above 100 systolic
Maintain C-spine while intubating

If SBP<90 or MAP <60, give NS bolus to maintain SBP >90 MAP>60 up to max 1000ml

Notes:

*Do not delay transport time with multiple intubation attempts
**For signs of increased ICP such as unequal or fixed pupils, posturing, Cushing's response (hypertension/ bradycardia), abnormal respiratory pattern, ventilate to goal ETCO2 of 30-40
or if not available, 20 breaths per minute.

Trauma Care
Spinal injury
Protocol # T420

EMR

BLS

ALS

Mechanism:
Suspected Deceleration Injuries, Motor Vehicle Crashes, Falls, etc.

BLS/ALS
SMR DECISION TREE/ FIELD SPINAL MOTION RESTRICTION PROTOCOL # T405

Patient IS Hemodynamically stable

YES — **Transport to closest appropriate facility**

NO — **BLS obtain ALS intercept**

ALS Appropriate Trauma Care

Suspected Neurogenic shock

NO — (back to) **Transport to closest appropriate facility**

YES

If Patient is not responsive to fluid bolus, **NOREPINEPHRINE** infusion at 2mcg/min and titrate to SBP>90mmHg. Max dose of 12mcg/min or Push dose Epi 1ml every 3-5 till BP of 90 systolic, if less then 10 minutes from Medical Center.

Transport to closest appropriate facility

Trauma Care
Burns Thermal/Electrical/Lightening
Protocol # T425

EMR

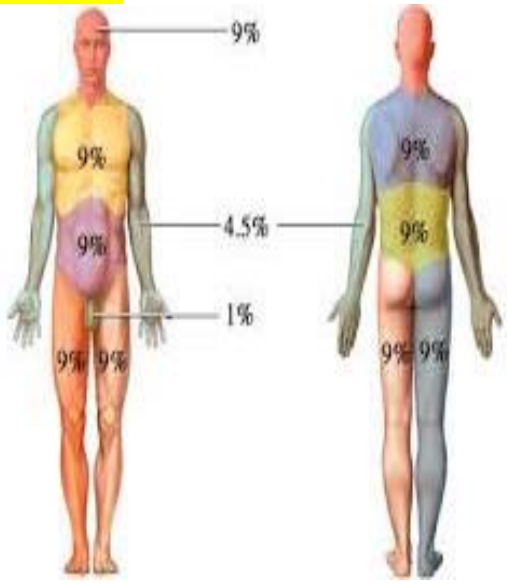
BLS

ALS

All Levels
Have pt removed from fire/remove fire from patient (See notes)
Routine Trauma Care
Remove clothing, jewelry from affected areas (clothing sticks, do NOT remove)

BLS obtain ALS intercept

ALS
Obtain large bore IV's
500ml LR fluid bolus
Repeat as needed to maintain BP
Pain control as needed



Possible Airway compromise ?

YES → **ALS RSI Protocol Obtain advanced airway early**

NO → **Monitor closely Transport to closest appropriate facility**

Notes:

a. If burn occurred within 15 minutes, cover burns with dry, clean/ sterile dressing and cool with sterile water.

b. If burn occurred greater than 15 minutes prior, apply dry, clean/sterile dressings.

Consider helicopter for transport to Burn Center

Burn patients are often victims of multiple trauma. Treatment of major traumatic injuries takes precedence over wound management. Isolated burn injury patients should be transferred to the closest available hospital

ASSESS

- **Total body surface area: use rule of 9s or estimate using patient's palmar surface as 1%**
- **Depth of burn: partial or full thickness, consider exposure to products of combustion and treat as soon as possible**

Trauma Care
Burns Chemical
Protocol# T430

EMR

BLS

ALS

All Levels
Identify Chemical Causing burns/injury
Utilize MSDS Sheets or Safety Date Sheets

Routine Trauma Care
Removed contaminated clothing
Decon as recommended by MSDS sheets

Ensure receiving Medical Center of potential chemical exposure
Transport to closest appropriate facility

Notes:

Irrigate or flush burn with copious amounts of water or saline, unless contraindicated.

a. Dry powder burns should be brushed off before applying water

b. Irrigate burns to the eye(s) for at least 15 minutes

c. Alkaline burns should receive continuous irrigation

ALS: Initiate Pain Control as needed

Trauma Care
Extremity Injuries/Amputated Tissue
Protocol# T435

EMR

BLS

ALS

All Levels
ROUTINE TRAUMA CARE
(CABs always take priority over the severed part)

All Levels
Control bleeding with direct pressure and elevation
For uncontrolled hemorrhage:
- **Consider use of a hemostatic dressing (if available)**
- **Use a tourniquet if needed**
- **Note time of placement**
- **Apply as close to the injury as possible**
- **DO NOT release once applied**

Amputated Tissue?

No

BLS Obtain ALS intercept if determine blood loss to unstable hemodynamically

ALS
Obtain IV/IO access
Pain control as needed

Transport to closest appropriate Facility

YES

- **Wrap part in sterile gauze, sheet or towel.**
- **Place part in waterproof bag or container and seal.**
- **DO NOT immerse part in any solutions.**
- **Place this container in a second one filled with ice, cold water or cold pack.**

BLS Obtain ALS intercept

ALS
Obtain IV/IO access
Pain control as needed

Note:

- **Consider application of system approved Pelvic binder for pelvic fractures**

Consider helicopter for transport to Trauma Center

Trauma Care
Hemorrhagic Shock
Protocol # T440

EMR

BLS

ALS

All Levels
ROUTINE TRAUMA CARE WITH 100% OXYGEN

All Levels
Control external hemorrhage if present.
Consider use of a hemostatic dressing (if available)

BLS Obtain ALS Intercept

ALS
If patient remains hemodynamically unstable (SBP <80 mmHg) after bleeding control attempts administer fluid bolus of 500 ml of **LACTATED RINGERS**.

ALS
Administer **TRANEXAMIC ACID** (TXA) 1 gm IVP. This may be done co-current with fluid bolus

Transport to closest appropriate facility

Note:

- **TXA cannot be administered if trauma occurred more than 4 hours prior.**
- **TXA can be utilized in suspected GI Bleed, Vaginal Bleed or Postpartum Hemorrhage with signs of shock (tachycardia and/or hypovolemia, altered mental status)**

- **TXA may be used for epistaxis that is uncontrollable**
  - **Soak a 4x4 gauze(s) with TXA, once fully soaked, place gauze into nare. Leave enough gauze out of the nare so that if necessary, gauze may be removed**

Trauma Care
Crush/Suspension Protocol# T445

EMR

BLS

ALS

All Levels
Routine Trauma Care
If extremity involved, place EMS approved tourniquet on affected extremity as close to crush injury as possible.

BLS
Prior to Release of compression/ suspension force:
Neb **ALBUTEROL SULFATE** (NOT DUONEB)
Repeat once

BLS Obtain ALS intercept

ALS
IV/IO x2
Administer **1000 ml LR bolus;** then give **Sodium Bicarbonate 1 amp IVP**

ALS
Prior to Release of compression/ suspension force: Neb **ALBUTEROL SULFATE** (NOT DUONEB)
Repeat once

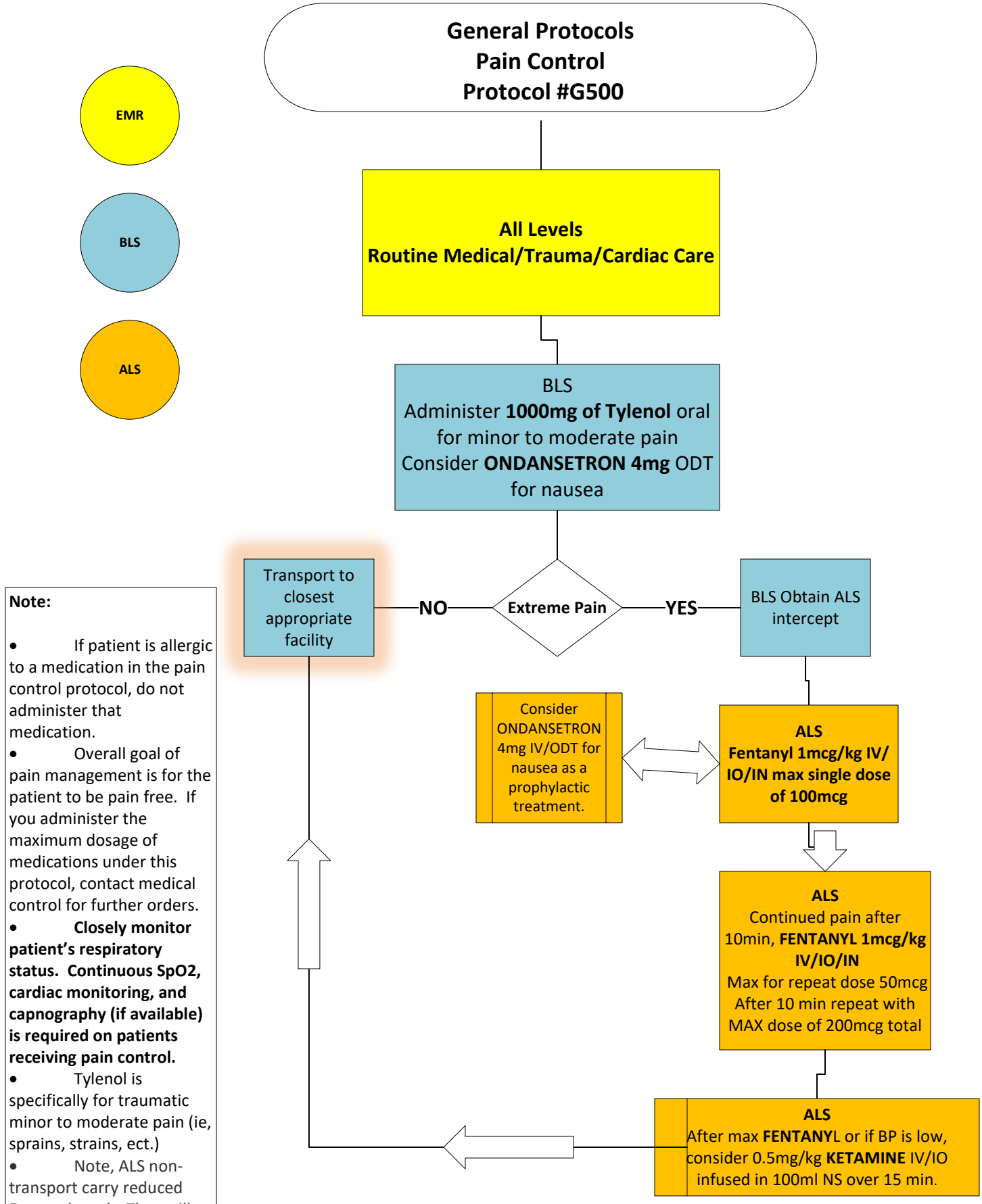
ALS
AFTER RELEASE OF COMPRESSION/ SUSPENSION FORCE:
If hyperkalemia is suspected (compression >4 hours; suspension >2 hours, abnormal ECG showing peaked T-waves, absent P-waves, or widened QRS, **CALCIUM Glucanate** 1 gm slow IVP.

Transport to closest appropriate facility

Note:

Rescue of victims is paramount in suspension situations.

Consider Helicopter transport to Trauma Center if able


General Protocols
Pain Control
Protocol #G500
EMR
BLS
ALS
All Levels
Routine Medical/Trauma/Cardiac Care
BLS
Administer 1000mg of Tylenol oral for minor to moderate pain
Consider ONDANSETRON 4mg ODT for nausea
Extreme Pain
NO
YES
Transport to closest appropriate facility
BLS Obtain ALS intercept
Consider ONDANSETRON 4mg IV/ODT for nausea as a prophylactic treatment.
ALS
Fentanyl 1mcg/kg IV/IO/IN max single dose of 100mcg
ALS
Continued pain after 10min, FENTANYL 1mcg/kg IV/IO/IN
Max for repeat dose 50mcg
After 10 min repeat with MAX dose of 200mcg total
ALS
After max FENTANYL or if BP is low, consider 0.5mg/kg KETAMINE IV/IO infused in 100ml NS over 15 min.
Note:
If patient is allergic to a medication in the pain control protocol, do not administer that medication.
Overall goal of pain management is for the patient to be pain free. If you administer the maximum dosage of medications under this protocol, contact medical control for further orders.
Closely monitor patient's respiratory status. Continuous SpO2, cardiac monitoring, and capnography (if available) is required on patients receiving pain control.
Tylenol is specifically for traumatic minor to moderate pain (ie, sprains, strains, ect.)
Note, ALS non-transport carry reduced Fentanyl totals. They will be unable to give repeat doses.

General Protocols
Nausea/Vomiting
Protocol #G505

EMR

BLS

ALS

All Levels
Routine Medical/Trauma/Cardiac Care
(Be sure pt is sitting up or in a lateral recumbent position or if on LSB, slightly tilted to prevent aspiration)

BLS
ONDANSETRON 4mg ODT

ALS
Obtain IV Fluids if needed
ONDANSETRON 4 mg IV/ ODT
May repeat once if pt remains nauseous/ vomiting

Transport to closest appropriate facility

Note:

Closely monitor airway, keep suction ready to use!

General Protocols
Chemical Restraint
Protocol #G510

BLS

ALS

EMR

All Levels
Routine Medical Care
Work with law enforcement to safely control/restrain patient only if necessary
REFER to Patient Restraint PROCEDURES

SEVERE Combativeness Excited Delirium?

YES

ALS KETAMINE 4mg/kg IM

NO

ALS
HALOPERIDOL 5mg and MIDAZOLAM 2mg IM
May repeat after 10 min if not manageable

- Emergence reaction: presents as anxiety, agitation, apparent hallucinations or nightmares as ketamine is wearing off. For severe reactions, consider Versed 2mg IM or IV. Nausea and Vomiting: always have suction available after ketamine administration. Hypersalivation: Suction usually sufficient.

ALS Continuous Monitoring – Cardiac,SAO2 Capno

Contact Medical Control ASAP
Transport to closest appropriate facility

Note:

- IM Injections should be given in the Vastus Lateralis or the Dorsogluteal. Injections should not exceed 5mL per site.
- Document the patient's behavior, statements, actions and surroundings.
- Verbally attempt to calm and/ or re-orient the patient to reality.
- If restraints are used, thoroughly document the reasons for applying restraints, time of application, condition of the patient before and after application, method of restraint and any law enforcement involvement, including any use of law enforcement equipment (e.g. handcuffs) and the time Medical Control was contacted.

- Consider medical etiologies of apparent behavioral disorders such as hypoxia, stroke/head bleed, substance abuse/overdose, and hypoglycemia.
- Document response to sedation including vital signs, Rhythm, Pulse Ox and ETCO2.
- Haldol may precipitate dystonic reactions including Restlessness, Tics, and Muscle Rigidity. If suspected, give Benadryl 25mg IV or IM.
- When using Ketamine, be aware of Side Effects Laryngospasm: this very rare adverse reaction presents with stridor and respiratory distress. After every administration of ketamine:

a. Prepare to provide respiratory support including bag-valve-mask ventilation and suction which are generally sufficient in rare cases of laryngospasm.
b. Institute cardiac monitoring, pulse oximetry and continuous waveform capnography
c. Establish IV or IO access, check blood glucose
d. Establish and maintain physical restraint.

General Protocols
RAPID SEQUENCE INTUBATION
Protocol #G515

ALS

ALS

1. PRE-OXYGENATE: Position the patent and pre-oxygenate with high flow oxygen by mask for 2-5 minutes. Do not manually ventilate the patient unless ventilatory assistance is needed; if so, use BVM to provide respiratory support.
2. PREPARE: Assess for difficult airway and likelihood of difficulty with bag and mask ventilation. Have airway adjuncts and alternative airway readily available. If you anticipate difficulty with intubation or bag and mask ventilation call for help early and have a primary and secondary plan for airway management consider using video laryngoscopy initially. Assemble the required equipment and draw up the medications in labeled syringes. Ensure that the IV functions well. Continuously monitor the cardiac rhythm and pulse oximetry if conditions allow. Have immediately available an iGel or BIAD, and the emergency cricothyrotomy kit. **RSI requires the use of a video laryngoscope**

Pre-Medication

Fentanyl1-3 mcg/kg IV slowly over several minutes

Midazolam
0.1mg/kg IV/IO

Ketamine
1-2mg/kg IV/IO
Preferred for Status Astmaticus

Etomidate
0.2-0.4mg/kg IV/IO
Good for suspected ICP

- Continue pre-oxygenation for 1-2 minutes (allows medications to work) prior to **paralytic**, if time allows and the patient has effective respiratory effort/ support.
- Consider removing the C-collar if present while providing in-line manual immobilization of the head and neck to aid intubation, also consider using video laryngoscopy as a first line in these patients.

Succinylcholine
1.5-2mg/kg IV/IO

Paralyze/Intubate

Rocuronium
1mg/kg IV/IO

Succinylcholine contraindications include:
1. 5 days or more post-burn or major trauma
2. Patient with a history of chronic paralysis, malignant hyperthermia, know Acetylcholinesterase deficiency, or neuromuscular disorder (i.e. MS)
3. Known hyperkalemia

1. Preferred agent for pediatric intubations unless known or predicted difficult airway
2. Preferred agent if known or suspected contraindications to Succinylcholine

General Protocols
RAPID SEQUENCE INTUBATION
Protocol #G515

ALS

Continuation

CONTINUED NEUROMUSCULAR BLOCKADE after intubation

Rocuronium *0.5-1.0 mg/kg IVP*

CONTINUED SEDATION, administer

Midazolam (Versed) 0.05mg/kg (3-5 mg in adults) every 15-30 minutes prn after intubation

Fentanyl 1-3 mcg/kg *IV over 2 minutes*

Ketamine 0.5-1.5 mg/kg every 5-10 minutes

NOTE:

- Apnea, jaw relaxation, and decreased resistance to bag/ mask ventilation s indicate that the patient is sufficiently relaxed to proceed with intubation.
- Intubate, check tube placement secure tube, and continue to assist respiration

UNSUCCESSFUL PLACEMENT:

If endotracheal intubation is unsuccessful, and you are unable to ventilate the patient with BVM, consider attempting to gain airway control using one of the following techniques:

A) Place iGel

b) Attempt placing bougie through iGel, and exchanging for ETT (only if iGel ineffective)

c) Consider quick trach procedure if absolutely necessary.

** If intubation is unsuccessful and additional paralytics are needed, a non-depolarizing agent should be considered after ease of bagging and airway back up has been carefully considered.

General Protocols Behavioral Health Patients Protocol #G520

EMR

BLS

ALS

Refer to Decisional Capacity checklist for further information.
Ensure scene safety on all calls.

EMR/BLS

Routine medical care
Be sure there are no underlying medical or trauma issues
Attempt to calmly reassure patient. Allow the patient to speak. Maintain a non-judgmental attitude when interacting with the patient, family and bystanders
If patient is suicidal, or clearly incompetent and dangerous to self or others, it is in the best interest of the patient to receive further treatment.
Attempt to gain cooperation with patient and voluntary agreement to seek further treatment at the appropriate facility
If patient is uncooperative, work with police to determine the need for involuntary paperwork.
If necessary for patient or provider safety, contact ALS to consider the use of chemical restraint policy.

Note:

- EMS does not fill out involuntary commitment forms
- EMS may accept involuntary commitment forms completed by law enforcement or a licensed clinical social work or other appropriate mental health providers

Forms must be fully completed and legible to be accepted

ALS
BLS care
Consider use of protocol #510

Transport to closest appropriate facility per system policies.

OB/GYN
Pre-Eclampsia/Eclampsia/Toxemia
Protocol #O600

EMR

BLS

ALS

All Levels
Assure Airway and adequate breathing

All Levels
Routine Medical Care
Assure Minimal Stimulation (DO NOT CHECK Pupils with a LIGHT SOURCE)

EMR/BLS
If pt is seizing, follow Protocol #M335

BLS Transports
OBTAIN ALS INTERCEPT Immediately

ALS
If pt is seizing follow Protocol #M335
Administer Magnesium Sulfate 2-4 g SLOW IV (not to exceed 1g/Min)
Do not lower BP to less <130/80

Transport to closest APPROPRIATE facility

Advise Med Control of situation

Note:

Definition: Coma and convulsive seizures or SBP greater than 140, diastolic greater than 90, occurring between the 20th week of pregnancy and the end of the first week postpartum.

EMR

BLS

ALS

OB/GYN Impending Delivery Protocol #O605

All Levels
Routine Medical Care
Obtain complete Hx of pregnancy
Position pt on left side if in 2nd or 3rd trimester
If hypotensive – elevate feet 10-12 INCHES

BLS Have OB kit out and ready
Obtain ALS Intercept

ALS
Continue BLS care
If Hypotensive obtain IV Fluids LR with 250ml bolus

Crowning?

YES → **Prepare for delivery Use appropriate protocol**

NO

Transport to closest APPROPRIATE facility

Note:

- **History questions: length of gestation, previous pregnancies (gravida), # of children from previous pregnancies (para), due date, history of complications of pregnancy, pain level, contraction status/frequency, membrane status, anticipated multiple birth, estimate bleeding, high risk factors.**
- **High risk factors: lack of prenatal care, drug abuse, teenage pregnancy, history of diabetes, hypertension, cardiac diseases, previous breech or c-section deliveries, pre-eclampsia/ eclampsia/ toxemia**

BLS

EMR

ALS

OB/GYN
Childbirth: Normal Delivery
Protocol #O610

EMR/BLS

1. If field delivery is imminent, allow delivery to progress spontaneously.
2. Support baby's head so that it doesn't emerge too quickly.
3. Tear amniotic membrane if it is still intact and visible outside the vagina.
4. Check for cord around neck. If cord is around neck, try to slip it over the shoulder and head. If unable to remove the cord from around neck, place umbilical clamps 2 inches apart and cut cord between clamps.
5. The baby will be wet and slippery. Carefully support head throughout delivery. Suction baby's mouth then nose with bulb syringe as soon as head emerges.
6. Tell the mother to resume pushing. Support the head as it rotates. A slight lowering of the baby to allow delivery of the anterior (top) shoulder, and then gentle lifting to allow delivery of the posterior (bottom) shoulder may be helpful. The baby should deliver completely.

AFTER DELIVERY

1. Routine Medical Care.
2. Placenta should deliver within 20-30 minutes. Do not delay transport while waiting for placenta to deliver.
3. Observe for excessive bleeding.

ALS

1. If field delivery is imminent, allow delivery to progress spontaneously.
2. Support baby's head so that it doesn't emerge too quickly.
3. Tear amniotic membrane if it is still intact and visible outside the vagina.
4. Check for cord around neck. If cord is around neck, try to slip it over the shoulder and head. If unable to remove the cord from around neck, place umbilical clamps 2 inches apart and cut cord between clamps.
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6. Tell the mother to resume pushing. Support the head as it rotates. A slight lowering of the baby to allow delivery of the anterior (top) shoulder, and then gentle lifting to allow delivery of the posterior (bottom) shoulder may be helpful. The baby should deliver completely.

AFTER DELIVERY

1. Routine Medical Care.
2. Placenta should deliver within 20-30 minutes. Do not delay transport while waiting for placenta to deliver.
3. Observe for excessive bleeding.
4. IV Lactated ringers (1000 mL) with macrodrip tubing, TKO if SBP > 100 mmHg. Run wide open if SBP < 100 mmHg.

OB/GYN
Severe Vaginal Hemorrhage (Postpartum or Miscarriage)
Protocol #O615

EMR

BLS

ALS

EMR/BLS
Assure Airway and adequate respirations
Routine Medical Care

BLS Obtain ALS INTERCEPT

Place a sanitary napkin over the vaginal opening. Make a note for the time the napkin was placed. Remove pads as they become soaked, but save all pads to use in evaluating blood loss.

Save ALL Tissue that is past

Massage fundus of uterus to keep firm and contracted.

If patient becomes hypotensive, position patient on left side with legs elevated.

ALS
IV Lactated Ringers (1000 mL) with macrodrip tubing, TKO if SBP > 90 mmHg. Run wide open if SBP<90 mmHg.

Promptly transport patient.

Transport to closest appropriate facility

ALS
Consider administering **TRANEXAMIC ACID (TXA) 1 gm IVP**

OB/GYN
Abnormal Deliveries- Prolapsed Cord
Protocol #O620

EMR

BLS

ALS

EMR
Routine Medical Care
O2 via Nasal Cannula 4lpm

BLS

1. Routine Medical Care.
2. Oxygen via nasal cannula 4 liters per minute.
3. Transport immediately.
4. Place mother in knee-chest position or in a supine position with hips elevated on pillow.
5. Protect cord from being compressed by placing sterile gloved hand in vagina between pubic bone and presenting part with cord between fingers and exert counter pressure against presenting part. Keep hand in position until relieved.
6. Palpate cord for pulsation two time max
7. DO NOT ATTEMPT TO PUSH CORD BACK.
8. Keep exposed cord moist and warm.

ALS
Continue BLS Care
Obtain IV LR TKO enroute

Transport to the closest APPROPRIATE facility

OB/GYN
Abnormal Deliveries- Breech
Protocol #O625

All Levels

1. **Routine Medical Care.**
2. **Oxygen via nasal cannula 4 LPM.**
3. **Transport immediately.**
4. **Never attempt to pull the baby from the vagina by the legs or trunk.**
5. **As soon as legs are delivered, support baby's body.**
6. **After shoulders are delivered, gently elevate trunk and legs to aid in delivery of head (if face down).**
7. **Head should deliver in 30 seconds. If not – reach 2 fingers into the vagina to locate the infant's mouth. Press vaginal wall away from baby's mouth to force an airway. Apply gentle pressure to the mother's fundus.**

Transport to Closest appropriate facility

Abuse
Rape/Sexual Assault
Protocol #A700

1. Treatment Facility – Means the hospital can provide forensic evidence collection of a patient who experienced a sexual assault
2. Transfer Facility – Means the hospital can treat any life threats, however the patient will need to be transferred to another facility for evidence collection/forensics of the sexual assault

All levels

1. Ensure scene safety. Survey the scene giving special consideration to preserving any articles of evidence on or around the patient.
    a. Discourage patient from changing clothes, urinating, or washing/showering.
    b. Collaborate with police to determine what articles (e.g. clothing) will be transported with the patient.
    c. Do not physically examine the genital area unless there are apparent injuries which need treatment.
    d. All linen used by the patient should be left with the patient at the Emergency Department.
2. If the patient is injured, routine trauma care. If no obvious injuries, routine medical care.
3. Notify law enforcement (if not already at scene).
4. Only ask questions pertinent to injury.
5. See *eporting of Suspected Crime* policy/procedure.

Note:

- ***It is important to note that this memo is specific to sexual assault evidence collection.**
- ***Whether evidence is collected or not is at the determination of the ER physician and staff. EMS does NOT make the determination whether evidence is to be collected or not.**
- ***Agencies who are in rural settings and do not typically transport to a treatment facility or are geographically distant from a treatment facility should transport the patient to the closest appropriate facility.**
- ***If patient is in extremis (i.e experiencing a life threat or is unstable), transport to the close's appropriate facility.**
- ***Patients still have the right, if they meet all the requirements (age, orientation, etc.), to choose the facility they are transported to. However, it is important that providers educate their patients on a facility's ability to treat specific conditions.**

pe

OSF Hospitals	Approved Transfer Hospitals (*i.e., where do the patients who present to the hospital transfer to?*)	Treatment Hospital Pediatrics (0-12 years)	Treatment Hospital Adult (13 & older)
Saint Elizabeth Medical Center, Ottawa	SFMC & SJMC (Peds)		YES
Saint Elizabeth Medical Center - PERU	SEMC – Ottawa (A/A), SPMC (A/A), SFMC & SJMC (Peds)		
Center for Health Streator	SPMC & SEMC (A/A); SFMC & SJMC (Peds)		
Saint Paul Medical Center, Mendota	SFMC & SJMC (Peds)		YES
Sacred Heart Medical Center, Danville	Carle (all ages)		
Little Company of Mary Medical Center, Cook County	Advocate Christ (Peds) & Mt. Sinai (A/A)		
Saint Anthony Health Center, Alton (Contracted with MEDS for A/A)	SSM Cardinal Glennon (Peds), St. Louis Children's (Peds)		YES
Heart of Mary Medical Center	Carle (all ages)		
Holy Family Medical Center	McDonough District (all ages), SFMC (all ages)		
Saint Anthony Medical Center	Swedish American (all ages)		
Saint Clare Medical Center, Princeton	SFMC (all ages); SPMC & SEMC (A/A)		
Saint James JA Medical Center, Pontiac	SJMC (all ages)		
Saint Luke Medical Center, Kewanee	SFMC (all ages)		
Saint Mary Medical Center, Galesburg	SFMC (all ages)		
Saint Katharine Medical Center, Dixon	SPMC & SEMC (AA) & UW Swedish American (Peds)		
Saint Francis Medical Center, Peoria	N/A (treatment hospital)	YES	YES
Saint Joseph Medical Center, Bloomington	N/A (treatment hospital)	YES	YES
Saint Francis Hospital, Escanaba	N/A (treatment hospital)	YES	YES

A/A = Adult and adolescent patients 13 years and older **Peds = pediatric patients 12 years old and younger**

OSF Treatment Hospital	Non-OSF Transfer Hospitals
Saint Francis Medical Center	Carle Eureka (all ages)
	Graham Hospital, Canton (all ages)
	Gibson Area Hospital, Gibson City (pediatrics)
	Hopedale Medical Center (all ages)
	Methodist Medical Center (pediatrics)
	Pekin Memorial (all ages)
	Proctor Community Hospital (all ages)
	St. Margaret's Hospital Spring Valley (all ages) – CLOSED
	Morrison Community Hospital, Morrison, IL (pediatrics)
	Morris Hospital (pediatrics)
St. Joseph Medical Center	Warner Clinton Hospital (all ages)
	Carle Bromenn (pediatrics)
	Morris Hospital (pediatrics)

Abuse
Suspected Domestic/Neglect
Protocol #A705

All Levels

1. General approach:

- **a. Consider scene safety issues. If the suspected offender is present and interferes with transportation of the patient or is influencing the patient's acceptance of medical care, contact police and medical control and appropriate action.**
- **b. Routine medical/trauma care.**
- **c. Treat obvious injuries or illness.**
- **d. Survey scene for evidence of abuse neglect:**
  - **i. Environmental**
  - **ii. Interaction with family members**
  - **iii. Discrepancies in history of events**
  - **iv. Injury patterns that do not correlate with the history of patient use and mobility.**
  - **v. Signs of intentional injury or emotional harm.**

2. Transport.

3. Prehospital providers are not mandated to report suspected domestic abuse but are required to discretely offer the victim information on where assistance may be obtained.

4. Thoroughly document the history and physical exam findings on the patient care report.

Note:

As with all patients, confidentiality is of the utmost importance. No suspicion or accusations of abuse should be transmitted over the radio.

Abuse
Suspected Elder Abuse/Neglect
Protocol #A710

All Levels

1. **General approach:**
    - **a. Consider scene safety issues. If the suspected offender is present and interferes with transportation of the patient or is influencing the patient's acceptance of medical care, contact police and medical control for appropriate action.**
    - **b. Routine medical/trauma care.**
    - **c. Treat obvious injuries or illness.**
    - **d. Survey scene for evidence of abuse neglect:**
        - **i. Environmental**
        - **ii. Interaction with family members**
        - **iii. Discrepancies in history of events**
        - **iv. Injury patterns that do not correlate with the history of patient use and mobility.**
        - **v. Signs of intentional injury or emotional harm.**
2. **Transport.**
3. **Upon arrival, notify the receiving physician or nurse of the suspected abuse. Healthcare workers (including prehospital providers) are mandated by Illinois law to report cases of suspected abuse or neglect. You may contact the elderly abuse hotline 1-800-252-4343.**
4. **Thoroughly document the history and physical exam findings on the prehospital report.**

Note:

- **As with all patients, confidentiality is of the utmost importance. No suspicion or accusations of abuse should be transmitted over the radio.**

Version History

The following is the update lineage to the EMS protocols manual. Providers shall routinely check the system website (https://x.osfhealthcare.org/services/medical-professionals/ems/sjjwamcems/forms) to verify this copy is the most current edition. Only the most current edition, as listed on the website, shall be used for medical guidance. Previous editions shall be considered obsolete.

Initial Draft	N/A: Internal release only	N/A: not released to public
1.5	March 2020	Revised push dose epi protocols, medication mixed with normal saline
1.6	March 16, 2022	Bi PAP addition
1.7	Sept 1, 2022	Spinal immobile simplified, pain control changes.
2.0	Jun 17, 2025	Grammatical errors corrected. Addition of the following: • Nitro drip change for CHF • Max ipratropium uses • Narcan clarification • Trauma Alert clarification • Topical TXA • SA Chart • Labetalol for Hypertensive Emergencies • Calcium Gluconate
		• Increased Nitro drips for MI & CHF • TXA Changes • Verbiage change for Hyperthermia • Change for seizure medications dose
		• STEMI Criteria moved to Cardiac Care • Range for initial dose of Nitro drip for Chest Pain Protocol with increased frequency • Removal of gastric ulcer disease contraindication for ASA • Confirmation of tube placement • American Heart Association BLS Algorithm • Post-ROSC Protocol • Notes for Sodium Bicarbonate & Calcium Gluconate in cardiac arrest/rhythm specific treatment protocols • Increased max norepinephrine drip • Atropine increased for bradycardia
2.1	June 24, 2025	Medical Director Review
2.2	July 16, 2025	Medical Director approval – Submission to IDPH

2.3	December 18, 2025	Grammatical errors corrected. Addition of the following: • Table of contents • #C100-systolic BP changed from >100 to >90 for administration of nitroglycerin sublingual • #C105A- updated to 2025 AHA algorithm • #C110-updated to AHA algorithm; changed wording and arrows to better clarify • #C155- simplified title eliminating 'unstable' and replacing with 'symptomatic' • #C160- simplified title eliminating 'unstable' and replacing with 'symptomatic'; replaced 'obtain vascular access' with 'consider vascular access' • #M310- simplified noted • #M315- simplified notes • #M330A- deleted policy; no longer applicable • #R200 & R210-updated Cpap to range of 5-10 cm h2o for BLS • #T405- added field spinal mobilization algorithm • #T410- changed TXA dosing to 1 gm IVP • #T440- changed TXA dosing to IVP • #T445- updated Sodium Bicarbonate to be given 1 gm IVP

		• #O600- removed note regarding Calcium Chloride • #O615- changed TXA dosing to IVP • #O700- updated wording for sexual assaults; removed timeframes for evidence collection; updated hospital transfer/ treatment sites with new reference sheet