

Jan. 01, 2021 Guideline Change Log

Non-Procedure Guidelines:

NEW: Acute Dystonic Reaction

- New indication for diphenhydramine.
- Description of condition and anticipated response.

Adult Post-ROSC:

- Update pressor dosages.
- Recommend stabilizing on-scene before transport.

Adult Allergic Reaction / Anaphylaxis:

- Update pressor dosages.

Adult Drug Overdose:

- Reorganized flow. Added EGD as option for suspected opiate unresponsive to treatment.
- Reference to newly updated Chemical Sedation for Agitated and Delirious Patient for stimulant overdose.
- Added atropine to beta-blockers.
- Updated pressor dosages.
- Added dose of D10 for hypoglycemia.
- Updated dosage of midazolam for TCAs.

Adult Reactive Airway Disease:

- Update pressor dosages.

Adult Sepsis / Septic Shock:

- Update pressor dosages.

Bites and Envenomations:

- Add pediatric options for vasopressors.
- Updated adult and pediatric midazolam dosages for muscle spasm.

Adult CHF / Pulmonary Edema:

- Update pressor dosages.

Atropine (Formulary):

- Updated guidelines referencing the formulary.
- Standardized pediatric dose of atropine for OGPs.

Calcium Gluconate (Formulary):

- Adjusted max pediatric dose to 3g.

Dexamethasone (Formulary):

- Added key point about adrenal insufficiency.

Diphenhydramine (Formulary):

- Added indication for acute dystonic reaction.

Epinephrine (Formulary):

- Reorganized indications.
- Change IM epi for anaphylaxis to BLS (this was already current practice).
- Change dosing range for epinephrine. More rapid titration.
- Simplify dosing range for IM epinephrine for pediatric reactive airway disease (<25kg, >25kg) as was done for pediatric anaphylaxis.

Midazolam (Formulary):

- Broke out pediatric dosing by route to be more pragmatic.

- Removed intranasal route for adults.
- New indication for Chemical Sedation for Agitated and Delirious Patient.

Norepinephrine (Formulary):

- Reorganized indications.
- Change dosing range for norepinephrine. More rapid titration.

Adult Hypothermia:

- Clarify language for epinephrine.

Adult Seizures/Status Epilepticus:

- Update midazolam dosages.
- Remove IN as an option for adults.

Adult Narrow Complex Tachycardia Irregular:

Adult Narrow Complex Tachycardia Regular:

Adult Wide Complex Tachycardia Regular:

Adult Wide Complex Tachycardia Irregular:

- Standardize indications, remove CP.
- Standardize fluid bolus before electricity.

Neonatal Resuscitation:

- Standardize epi dose by choosing fixed dose instead of range.

Pediatric Post-ROSC:

- Update pressor dosages.
- Recommend stabilizing on-scene.

Pediatric Allergic Reaction / Anaphylaxis:

- Update pressors.

Pediatric Convulsive Seizures / Status Epilepticus:

- Update midazolam dosages.

Pediatric Reactive Airway Disease:

- Simplify IM epi dosages like anaphylaxis (<25kg,>25kg).

Pediatric Drug Overdose

- Reorganized flow.
- Updated pressor dosages.
- Updated midazolam dosages.
- Added atropine for beta blockers.
- Updated max dose of calcium gluconate for CCBs.
- Specify dose of D10 for hypoglycemia.
- Updated atropine dosage for OGPs to be simpler and more c/w adult max dosages.

Pediatric Sepsis / Septic Shock:

- Update pressor dosages.

Pediatric Stridor / Croup:

- Updated language on nebulized epinephrine to be consistent with formulary (3 doses).

Pediatric Symptomatic Bradycardia:

- Update pressor dosages.

Pediatric Wide Complex Tachy Mono:

Pediatric Wide Complex Tachy Poly:

- Update definition of unstable.

Adult Symptomatic Brady:

- Update pressor dosages.
- Standardize indications, remove CP.
- Standardize fluid bolus before electricity.

Adult VAD:

- Update pressor dosages.

Procedure Guidelines:

NEW: Ventilator

- Procedure for setting up ventilator.
- Troubleshooting ventilator dysfunction.
- Initial settings.

NEW: Suctioning

- Specified considerations for different types of suctioning.
- Gastric suctioning through the EGD channel permitted. Can be left in place with low-intermittent suction.
- Troubleshooting lack of suction.
- Addition of SALAD (Suction-Assisted Laryngoscopy and Airway Decontamination).
- New images.

NEW: Extraglottic Devices (Deleted individual King / LMA guidelines)

- Adjusted indications.
- EGD is preferred device for prehospital cardiac arrest.
- Addition of sizing charts, including a ideal body weight-based sizing chart for AuraGain (require a height estimation, like the King LTS-D).
- New images

NEW: External Laryngeal Manipulation

- Describe procedure.

NEW: Mixing of Vasopressors

- Description of how to create an epinephrine mini-bolus.
- Standardization of mixing an epinephrine and norepinephrine drip. Changed the concentration to be lower than before (1mg/250mL, 4mcg/mL). Theoretically lower risk if extravasation occurs, but more importantly can be dosed more easily without a pump.
- Pump remains strongly recommended.
- Dosing reference provided for 4-16mcg/min.

12-Lead ECG:

- New image.
- Adjusted indications.
- Organizational / aesthetic changes.

Airway Management & Intubation Guidelines:

- Adjusted Designation of Condition.
- Added verbiage to permit pediatric BVM use in adults.
- Added verbiage about routine use of PEEP valve with BVM.
- EGD is the preferred airway for prehospital cardiac arrest.
- Added apneic oxygenation to intubation.

- Added reference to new airway checklist, external laryngeal manipulation, and SALAD maneuver.
- Two airway attempts permitted.
- Updated CPOT tool, which previously was missing the component for ventilator compliance.
- Elaborated on individual priorities for post-intubation / post-EGD management.
- Added verbiage not to correct low EtCO₂ in a patient with shock.

Bag Valve Mask:

- Adjusted indication.
- Added new photos and images.
- Included verbiage about using pediatric BVM for adults.

End-Tidal Capnography:

- Adjusted indications.
- Added new photographs.
- Developed a “troubleshooting”-style reference for different waveforms and etiologies.

Chemical Sedation for the Agitated and Delirious Patient:

- Adjusted indication.
- Extensive rewriting to incorporate an objective “Behavioral Severity Index” to help guide how aggressively to treat the patient.
- Include verbiage about not restraining patients for law enforcement purposes.
- Separation of severe alcohol withdrawal / delirium tremens with description and treatment recommendation.

COVID-19 patient Management:

- Specified patients for inclusion.
- Delineated aerosolizing procedures.
- Delineated increasing levels of respiratory support to minimize aerosolization.
- Guidelines for treatment of reactive airway disease with COVID.
- Added dexamethasone for the treatment of COVID requiring ventilatory support or oxygen.
- Added verbiage about using a ventilator to create space from the patient and using a HEPA filter on exhalation limb of ventilator circuit.
- Added verbiage to the refusal assessment tool to specify that the patient’s informed choice overrides the EMS providers’ recommendation.

CPAP:

- Adjusted indications and contraindications.
- Simplified procedure.

Cricothyrotomy:

- Adjusted indication.
- Extensive revision to include extra detail and images. Procedure has not changed.

External Jugular Access:

- Adjusted indication.
- Included information about relevant anatomy.
- Provided additional considerations:
 - Supine, head-down.
 - Avoid introduction of air into vein.
 - Risk of pneumothorax.
- New images.

Hemorrhage Control:

- Renamed. Previously “Tourniquet / Pressure Dressing” guideline.
- Specified management for different areas of the body.
- Commercially made tourniquet recommended. Discourage homemade tourniquets.
- Mandatory documentation of tourniquet time.

Intraosseous Cannulation:

- Significantly shortened.
- Routine use of pressure bag recommended.
- Recommended to use D10 instead of D50 with IO due to viscosity.
- Emphasize slow push of lidocaine in conscious patients.
- New images.

Medication Injection:

- New images.
- Minor organizational changes.

Nasal Drug Delivery Device:

- Adjusted indication.
- New image.

Needle Decompression:

- Extensive revision with incorporation of much more relevant anatomy and physiology.
- Anterior axillary is preferred location.
- Cautions with axillary and anterior approach.

Orotracheal Intubation:

- Adjusted indication.
- More detail on positioning.
- Added apneic oxygenation, airway checklist, external laryngeal manipulation.
- Two airway attempts permitted.
- Use of a bougie is recommended.
- Lead the intubation attempt with suction.
- New images.

Pelvic Binder:

- Adjusted indications. Recommended now to place pelvic binder on all patients with blunt multitrauma who are unstable. Consider placement for severe MOIs (especially MCC, ped struck).
- New image to emphasize anatomy.

Synchronized Cardioversion:

- Adjusted indication and removed chest pain. This is now congruent with clinical guidelines.
- Additional caution about cardioverting atrial fibrillation / flutter and consideration of underlying precipitants.
- Consider running double-speed strip to clarify fast rhythms.
- Removed diazepam for sedation.
- New images.

Transcutaneous Pacing:

- Adjusted indication and removed chest pain. This is now congruent with clinical guidelines.
- Verbiage to assess for STEMI, high-grade blocks unlikely to respond to atropine.
- Consider fluid bolus prior to pacing.
- Transcutaneous pacing not recommended for patients in cardiac arrest.
- Opiate analgesia is now recommended for pacing instead of sedation.

- New images.

Taser Dart Removal:

- Adjusted indication. Emphasized no removal for genitals, face, eyes, and neck.
- Added verbiage to assess for secondary injuries or underlying conditions.

Appendices:

Mass Casualty Patient Distribution Guidelines:

- Remains the same, except that bannerling requires at least 5 red/yellow patients.

References:

NEW: Vasopressor Clinical Considerations

- In-depth considerations for the use of vasopressors.
- Consider stress-dose steroids for refractory shock and history of adrenal insufficiency.

NEW: Capnography Clinical Considerations

- In-depth considerations for the use of capnography in different clinical conditions.

NEW: Airway Checklist