EMERGENCY MEDICAL CARE COMMITTEE MEETING AGENDA

Thursday, November 20th, 2025, at 8:30 A.M.
2995 McMillan Ave, Ste #178, San Luis Obispo

MEMBERS
CHAIR Chris Javine, *Pre-hospital Transport Providers, 2022-2026*
VICE – CHAIR Matt Bronson, *City Government, 2020-2024*
Dr. Brad Knox, *Physician*, *2022-2026*
Bob Neumann, *Consumers*, *2022-2026*
Alexandra Kohler, *Consumers, 2020-2024*
Jonathan Stornetta, *Public Providers, 2020-2024*
Michael Talmadge, *EMS Field Personnel, 2020-2024*
Jay Wells, *Sheriff's Department, 2020-2024*
Julia Fogelson, *Hospitals*, *2022-2024*
Diane Burkey, *MICNs*, *2022-2026*
Dr. Rachel May, *Emergency Physician*, 2022-2026

EX OFFICIO
Ryan Rosander, *EMS Director*
Dr. Bill Mulkerin**,** *EMS Medical Director*
Penny Borenstein, *Health Officer*

STAFF
Maya Craig-Lauer, PHEP Representative
Rachel Oakley, *EMS Coordinator*
Eric Boyd, *EMS Coordinator*
Kaitlyn Blanton, *EMS Coordinator*
Alyssa Vardas, *Administrative Assistant*

AGENDA	ITEM	LEAD
Call To Order	Introductions Public Comment	C. Javine
Action/Discussion	Approval of minutes: July 17th, 2025, Minutes (*attached)*	C. Javine
Action/Discussion	Policy Revisions: • Policy #221 Leave Behind Naloxone	B.Mulkerin
Action/Discussion	Protocol Revisions: • Protocol #622 Opioid Withdrawal • Protocol #618 Respiratory Distress- Opioid Overdose • Protocol #718 Supraglottic Airway Device • Protocol #602 Airway Management • Protocol #717 Endotracheal Intubation • Protocol #601 Universal • Protocol #663 Drowning • Protocol #645 Atrial Fibrillation • Protocol #642 Supraventricular Tachycardia • Protocol #619 Shock – Hypotension/Sepsis	B. Mulkerin
Staff Reports	• Health Officer • EMS Agency Director Report • EMS Medical Director Report • PHEP Staff Report	P. Borenstein R. Rosander B. Mulkerin M. Craig-Lauer
Committee Members' Announcements or Reports	Opportunity for Board members to make announcements, provide brief reports on their EMS-related activities, ask questions for clarification on items not on the agenda, or request consideration of an item for a future agenda (Gov. Code Sec. 54954.2[a][2])	Committee Members
Adjourn	**Next Meeting: TBD**	C. Javine

Emergency Medical Care Committee

DRAFT Meeting Minutes
8:30 AM July 17th, 2025
2995 McMillan Way, Suite 178
San Luis Obispo, CA 93401

MINUTES

MEMBERS PRESENT:
Chair Chris Javine, Pre-Hospital Transport Providers
Bob Neumann, Consumers
Rachel May, Emergency Physicians
Julia Fogelson, Hospitals
Diane Burkey, MICNs
Alexandra Kohler, Consumers

MEMBERS ABSENT:
Jay Wells, Sheriff's Department
Michael Talmadge, EMS Field Personnel
Matt Bronson, City Government
Brad Knox, Physicians
Jonathan Stornetta, Public Providers

EMS AGENCY STAFF PRESENT:
Rachel Oakley, EMSA

PUBLIC COMMENTORS:
Rob Jenkins, CALFIRE

EX OFFICIO:
Ryan Rosander, EMSA

1. CALL TO ORDER

Chair Chris Javine called the meeting to order at 8:30 a.m.

2. REVIEW AND APPROVAL OF May 15th, 2025, MINUTES

It was requested to work on discussion points for minutes. Provide more of a summary of discussions, rather than quotations by committee members, to more accurately record important information discussed in committee meetings.

Action: Rachel May moved to approve the minutes, Bob Neumann is second to approve, all approved, no opposition.

3. Protocols/Policies for Review:

Paramedic Policy 341

Discussion:

Suggestion to insert "SLOEMSA" before Medical Director in section IV., A., 6., d.

Paramedic Policy 342

Discussion:

It was suggested to match the language with other policies and attachment B for who is allowed to sign off on Paramedic skills sheets in section V., A., 5.

It was suggested to go over how to get signed off on skills performed in the field (at an EMS Update Class), as an EMT partner can't sign off on Paramedic skills. Another Paramedic or field supervisor can sign off if present.

Patient Refusal Policy 203

Discussion:

It was suggested that, "of a minor" is added to "Parent" and "legal guardian", for clarification in the DDM definition.

Under refusal in definitions, change "base station" to "receiving hospital".

It was suggested to include a definition for peds welfare and institutions hold 5585.

It was suggested to refer to 5585 in III., C. regarding when minors can't refuse.

It was suggested to clarify how providers document a patient's refusal to sign in section IV., A., 7., by putting in the signature line "patient refused" with provider's signature, and document in the narrative more information about the refusal.

Typo on IV., F.; "medial" change to "medical".

Paramedic policies 341, 342, and Patient Refusal policy 203 are moved for approval by Rachel May and Bob Neumann is second to approve. All in approval, no opposition.

Opioid Withdrawal Protocol and Buprenorphine Formulary

Discussion:

During the last EMCC meeting, it was proposed that the Opioid Withdrawal Protocol and Formulary be sent back to the Clinical Advisory Committee to change the medication from Suboxone to Buprenorphine. Buprenorphine is more readily available, less expensive, and has significantly more research supporting its use compared to Suboxone. Further changes include excluding pediatrics as a contraindication and moving the COWS score from 7 to 8. The Clinical Advisory Committee had no objections to the changes presented before returning to EMCC.

The Leave Behind Naloxone policy was discussed, and the committee learned that SLOEMSA is developing a universal Leave Behind Naloxone policy that can be applied during any protocol where there is a suspicion that the patient or their family could benefit

from this service. SLOEMSA also mentioned that they have been collaborating with the County's Opioid Safety Coalition to refine this policy and provide free, pre-made naloxone kits to any transport agency that requests them. The coordinator from the Opioid Safety Coalition will join the EMCC to discuss this further and explore the Naloxone Distribution Project.

Needle Cricothyrotomy Procedure 704

Discussion:

In recent months, several ALS agencies have requested approval from SLOEMSA for commercially available needle cricothyrotomy devices. These devices are significantly more advanced than those that must be custom-manufactured and installed in ALS units by each agency. Dr. Mulkerin supports ALS providers using these devices, provided they adhere to the manufacturer's instructions. The use of these commercially available devices is not mandatory; ALS agencies can choose to use them, continue with their current equipment, or maintain the status quo. Price was discussed briefly, but no further discussion ensued.

4. STAFF REPORTS/ANNOUNCEMENTS

Health Officer Update - Dr. Borenstein is currently on vacation.

EMS Director Update - The CHEMPACK and EOM/MHOAC training with CDPH and the RDMHS program was a huge success. Dr. Mulkerin is currently working his final shift in Stanford and will be more readily available in SLO.

EMS Medical Director Update - Dr. Mulkerin is not present.

PHEP Program Manager Update - Maya discussed the possibility of federal funding being cut from PHEP/HPP. Also informed the committee of a successful EMAD drill with OES.

5. FUTURE AGENDA ITEMS

Leave Behind Naloxone, Emergency Medical Responder (EMR) Training Program, Fluids for Normotensive Patients, Atrial Fibrillation RVR, Drowning, Mechanical CPR Devices.

6. ADJOURNMENT

Action:

Chair Javine adjourned the meeting at 10:00 a.m.

MEETING DATE	November 20, 2025
STAFF CONTACT	Ryan Rosander, EMS Director 805.788.2512 rrosander@co.slo.ca.us
SUBJECT	Leave behind Naloxone, A-FIB, drowning, fluid admin in the normotensive patient, SGA for EMTs, and pediatric SGA for paramedics.
SUMMARY	During the 2024 EMS Update class, SLOEMSA frequently received questions about fluid challenges in normotensive patients. Currently, paramedics are authorized to administer a 500 mL bolus; however, if the patient is normotensive and requires an additional 500 mL, they must call the base for approval. With the recent changes to Protocol #601: Universal and Protocol #619: Shock/Hypotension, paramedics can now use their discretion to administer up to 1 liter of fluid. During the 2024 EMS Update class, in addition to the request for expanded fluid administration protocols, SLOEMSA received multiple inquiries regarding the development of a standalone atrial fibrillation (A-FIB) protocol. These requests stemmed from the recognition that cardioversion of A-FIB with rapid ventricular response (RVR) has historically required a base hospital order. In time-critical situations where a patient is in A-FIB RVR and is in extremis, delays can be life-threatening. In response, SLOEMSA has created a dedicated A-FIB protocol, granting paramedics the ability to perform synchronized cardioversion for A-FIB RVR as a standing order for patients in extremis. A couple months ago, SLOEMSA was approached by a paramedic who also serves as a certified lifeguard. This individual conducted comprehensive research and engaged in consultations with leading drowning experts from various regions across the nation. Upon review, it was identified that SLOEMSA did not have a dedicated, standalone protocol addressing drowning incidents. In response, SLOEMSA collaborated with these experts to develop a new drowning-specific protocol that integrates current best practices and evidence-based guidelines, optimizing patient outcomes in drowning emergencies. SLOEMSA has received a recommendation for approval from EMCC for the implementation of a prehospital Buprenorphine administration protocol for patients experiencing opioid withdrawal. While the protocol has been approved, SLOEMSA has concurrently been developing a companion Leave-Behind Naloxone policy. This policy is being developed in collaboration with the County of San Luis Obispo's Opioid Safety Coalition and is intended to provide a standardized approach for Naloxone distribution by

	paramedics. The goal is to ensure that all patients at risk of opioid overdose have access to this life-saving intervention. Multiple stakeholders have requested that SLOEMSA permit SGA use for EMTs and pediatric SGA use for paramedics. EMT SGA use would expand optional skills and improve airway management when ALS is not yet on scene, while pediatric SGA use provides a safe, evidence-based option since pediatric intubation is not permitted in California. These updates align with statewide best practices, strengthen the EMS system, and improve patient outcomes.
REVIEWED BY	Dr. William Mulkerin, SLOEMSA Staff, Operations, CAC
RECOMMENDED ACTION(S)	Recommended the following for approval by CAC and moved to the EMCC agenda: Protocol #601: Universal Protocol #602 Airway Management Protocol #619: Shock (Medical) – Hypotension/Sepsis Protocol #642: Supraventricular Tachycardia Protocol #645: Atrial Fibrillation Protocol #663: Drowning Protocol #618: Respiratory Distress – Opioid Overdose Protocol #622: Opioid Withdrawal Protocol #717 Endotracheal Intubation Policy #221: Leave Behind Naloxone Procedure #718: Supraglottic Airway Device
ATTACHMENT(S)	Protocol # 601, 602, 619, 642, 645, 663, 618, 622, 717 Policy # 222, Procedure # 718

POLICY #221 LEAVE BEHIND NALOXONE:

I. PURPOSE

A. To establish guidelines and procedures for Emergency Medical Services personnel to leave behind intranasal naloxone kits with at-risk individuals, family members, or other bystanders at the scene of a suspected opioid overdose or in situations where opioid overdose risk is identified.

II. POLICY

EMS personnel may utilize this policy while following any SLOEMSA treatment protocols and may leave behind naloxone kits when any of the following occur:

A. Scene of suspected opioid overdose with patient revived or refusing transport;

B. High-risk individuals identified (e.g., known opioid users, with paraphernalia present);

C. Upon request by patient, family, or bystander;

D. Regardless of overdose involvement, if EMS personnel assess risk in others present.

III. PROCEDURE

A. Assessment and Education

1. Confirm opioid involvement or risk factors.
2. Provide brief training on:
    - Signs/symptoms of opioid overdose
    - Proper intranasal naloxone administration
    - Importance of dialing 911
    - Good Samaritan protections

B. Distribution

1. Provide a SLOEMSA-approved naloxone kit (typically two doses of 4mg intranasal naloxone, naloxone instruction, resource handout, and fentanyl test strips).

C. Documentation

Document in the ePCR:

- Indication for leave behind
- Number of kits left

- Recipient's relationship to patient (if applicable)
- Verbal consent and understanding of use
- If there is no PCR generated (e.g., a cancel, no patient found, or no medical complaint), but EMS personnel believe a leave behind Naloxone kit would be beneficial, they may leave the kit without documentation.

D. Resupply

Participating agencies are responsible for procuring and supplies through the California DHCS Naloxone Distribution Project or the County of San Luis Obispo's Opioid Safety Coalition.

IV. AUTHORITY

- California Health and Safety Code, Division 2.5,
- Title 22, California Code of Regulations, Division 9
- California Civil Code § 1714.22

Approvals:

EMS Agency, Administrator	
EMS Agency, Medical Director	

OPIOID WITHDRAWAL

ADULT	PEDIATRIC (≤34 KG)
BLS Procedures	
• **Universal Algorithm #601** • Pulse Oximetry - O_2 Administration per Airway Management Protocol #602	• Universal Algorithm
ALS Procedures	
• If suspected opioid withdrawals, use "COWS" score to determine if patient meets criteria to receive Buprenorphine - "COWS" ≥ 8 to qualify - Patient must be agreeable to treatment with goal of seeking resources and counseling • If believed that patient will benefit from Buprenorphine with no contraindications – contact nearest Base Hospital for orders	• Buprenorphine is not permitted in pediatric patients under 16 • For patients 16 and above, same as adult
Base Hospital Orders Only	
• **Buprenorphine** 16mg SL film/tablets (two strips/tablets) – reassess after 10 minutes - Call for secondary 8mg SL dose for persistent or worsening symptoms after 10 minutes - Give water to moisten mucus membranes prior to SL administration	• As needed

Notes

- **SEE PAGE 2 FOR COWS SCORE ASSESSMENT TOOL**
- If Buprenorphine is administered repeat "COWS" score assessment 10 minutes after initial dose and secondary dose if applicable
- Patients should have history of any one of the following:
  - Recent opioid use
  - Chronic opioid use
  - Evidence of illicit drug use (paraphernalia, needles etc)
  - Prescription narcotics in household or on patient
- Consider Policy #221: Leave Behind Naloxone

Clinical Opioid Withdrawal Scale (COWS)

ANXIETY OR IRRATIBILITY *Visually observed during assessment* **0** None **1** Reports increasing irritability or anxiousness **2** Visually irritable or anxious **4** Too irritable to participate or affecting participation	RESTING HEART RATE *Measured after sitting for one (1) minute* **0** ≤80 bpm **1** 81 to 100 bpm **2** 101 to 120 bpm **4** >120 bpm
BONE OR JOINT ACHES *Only new pain attributed to withdrawal is scored* **0** Not present **1** Mild, diffuse discomfort **2** Reports severe, diffuse aching of joints/muscles **4** Patient rubbing joints/muscles and unable to be still	RESTLESSNESS *Visually observed during assessment* **0** Able to be still **1** Report difficulty being still, but able to do so **3** Frequent shifting or extraneous movement of legs/arms **5** Unable to be still for more than a few seconds
SKIN SIGNS *Visually or physically observed during assessment* **0** Skin is smooth **3** Piloerection of skin – can be felt or visible arm hairs standing up **5** Prominent piloerection – "Gooseflesh Skin"	TREMOR *Observation of outstretched hands* **0** No tremors **1** Tremor can be felt but not observed **2** Slight tremor observed **4** Gross tremor or muscle twitching
GATROINTESTINAL UPSET *Within past 30 minutes* **0** No GI symptoms **1** Stomach cramps **2** Nausea or loose stool **3** Vomiting or diarrhea **5** Multiple episodes of diarrhea or vomiting	SWEATING *Over past 30 min – **not** from environment or activity* **0** No reports of chills or flushing **1** Subjective report of chills or flushing **2** Flushed or observable moistness to face **3** Beads of sweat on brow or face **4** Sweat streaming off of face
PUPIL SIZE *Visually observed during assessment* **0** Pupil pinned or normal size for ambient light **1** Pupils possibly larger than normal for ambient light **2** Pupils moderately dilated **5** Pupils very dilated	YAWNING *Visually observed during assessment* **0** No Yawning **1** Yawning once or twice during assessment **2** Yawning three or more times during assessment **4** Yawning several times per minute
RUNNY NOSE OR TEARING *Not accounted for by cold symptoms or allergies* **0** Not present **1** Nasal stuffiness or unusually moist eyes **2** Runny nose or tearing **4** Nose constantly running or tears streaming down face	**TOTAL COWS SCORING** **5 - 12** Mild Withdrawal **13 - 24** Moderate Withdrawal **25 - 36** Moderately Severe Withdrawal **>36** Severe Withdrawal

RESPIRATORY DISTRESS – OPIOID OVERDOSE

ADULT	PEDIATRIC (≤34 KG)
BLS	
• **Universal Protocol #601** • Pulse Oximetry - O_2 administration per Airway Management Protocol #602 • May assist with administration of patient's prescribed medication	Same as Adult
BLS Elective Skills	
Suspected Opiate Overdose with inadequate respirations (O_2 Sat < 94%, rate ≤ 8 bpm) • **Narcan** 4 mg IN in one nare – assess for adequate respirations - may repeat in alternate nare if no improvement after 2 min, max total of 2 doses	
ALS	
Suspected Opiate Overdose with inadequate respirations (O_2 Sat < 94% or $ETCO_2$ > 45 mmHg) • **Narcan** up to 1 mg IV/IM - Repeat as needed • Up to 2 mg IN (split between nares) – assess for adequate respirations - Repeat as needed	**Suspected Opiate Overdose with inadequate respirations** (O_2 Sat < 94% or $ETCO_2$ > 45 mmHg) • **Narcan** 0.1 mg/kg IV/IM/IN (split between nares) up to 1 mg – assess for adequate respirations - Repeat as needed
Base Hospital Orders Only	
• As needed	• As needed
Notes	
• IV is preferred route for Narcan administration • Inadequate airway, and respirations should be supported with BLS adjuncts and ventilations prior to Narcan administration • Poly-mixed drugs may require additional doses of Narcan titrated to maintain respirations • Alternate Narcan dosing for BLS Elective Skills may be added with approval of the EMS Agency Medical Director • Consider Policy #220: Leave Behind Naloxone	

Supraglottic Airway Device

BLS

Universal Protocol #601

Pulse Oximetry – O_2 administration per Airway Management Protocol #602

- Optional skills as approved by SLOEMSA

ALS

- Patients who meet indications for **Endotracheal Intubation Procedure #717**
- ALS provider judgement.
- ~~SGA use is not approved for pediatric use. SGA shall only be used for patients >34kg~~.

I-GEL

- Monitor End-tidal capnography throughout use.
- Select appropriate tube size.

Description	Size	Weight Range	Colour
I-Gel supraglottic airway, large adult	5	90+ kg	Orange
I-Gel supraglottic airway, medium adult	4	50 - 90 kg	Green
I-Gel supraglottic airway, small adult	3	30 - 60 kg	Yellow
I-Gel supraglottic airway, large paediatric	2.5	25 - 35 kg	White
I-Gel supraglottic airway, small paediatric	2	10 - 25 kg	Grey
I-Gel supraglottic airway, infant	1.5	5 - 12 kg	Light Blue
I-Gel supraglottic airway, neonate	1	2 - 5 kg	Pink

- While preparing tube, have assistive personnel open the airway, and clear of any foreign objects. Pre-oxygenate with 100% oxygen via BLS airway and BVM.
- Apply water soluble lubricant to the distal tip and posterior aspect (only) of the tube, taking care to avoid introduction of the lubricant into or near the ventilatory openings.
- Grasp the lubricated i-Gel firmly along the integral bite block. Position the device so that the i-Gel cuff outlet is facing towards the chin of the patient.
- Position patient into “sniffing position” with head extended and neck flexed. The chin should be gently pressed down before proceeding to insert the i-Gel.
- For pediatrics consider padding under the shoulders.
- Introduce the leading soft tip into the mouth of the patient in the direction towards the hard palate.
- Glide the device downwards and backwards along the hard palate with a continuous but gentle push until a definitive resistance is felt.
- At this point the tip of the airway should be located into the upper esophageal opening and the cuff should be located against the laryngeal framework. The incisors should be resting on the integral bite-block.
- Attach a BVM. While gently bagging the patient to assess ventilation, carefully withdraw the airway until ventilation is easy and free flowing (large tidal volume with minimal airway pressure).
- Confirm proper position by auscultation, chest movement and verification of ETCO2 by waveform capnography.
- The i-Gel should be secured down per manufacturer recommendation.

- Patients who have an advanced airway established shall have that airway secured with tape or a commercial device. Devices and tape should be applied in a manner that avoids compression of the front and sides of the neck, which may impair venous return from the brain.
- Ensure proper documentation of placement of the i-Gel placement including verification methods.

Base Hospital Orders Only

As needed

Notes

Contraindications

•Gag reflex. •Caustic ingestion. •Known esophageal disease (e.g., cancer, varices, or stricture).

- SGA during cardiac arrest is indicated.
- Once an SGA has been placed, it should not be removed for an ETI.
- If the provider cannot accomplish an ALS airway, they should document in the PCR why an ALS airway wasn't accomplished.
- To verify patency and placement of the SGA Device, providers shall verify placement of the i-Gel device by waveform capnography and a minimum of one additional method. This additional method can be any of the following:
  - Auscultation of lung sounds
  - Colorimetric CO2 Detector Device
  - Esophageal Bulb Detection Device
- During placement of an SGA, apneic oxygenation is recommended to be utilized when available. If appropriate, providers shall place a nasal cannula onto the patient prior to i-Gel placement and continue use of the nasal cannula during placement in order to assist in oxygenation.

AIRWAY MANAGEMENT

ADULT	PEDIATRIC (≤34 kg)
BLS	
• Universal Protocol #601 • Administer O_2 as clinical symptoms indicate (see notes below) • Pulse oximetry • Patients with O_2 Sat ≥ 94% without signs or symptoms of hypoxia or respiratory compromise should not receive O_2 • When applying O_2 use the simplest method to maintain O_2 Sat ≥ 94% • Do not withhold O_2 if patient is in respiratory distress • **Foreign Body/Airway Obstruction** - Use current BLS choking procedures - Basic airway adjuncts and suctioning as indicated and tolerated • Supraglottic Airway – as indicated to control airway– Procedure #718 • Optional skills as approved by SLOEMSA	Same as Adult (except for newborns) • Newborn (< 1 day) follow AHA guidelines – Newborn Protocol #651 • Optional skills as approved by SLOEMSA
ALS	
• **Foreign Body/Airway Obstruction** If obstruction not relieved with BLS maneuvers - Visualize and remove obstruction with Magill forceps - If obstruction persists, consider – Needle Cricothyrotomy Procedure #704 - Upon securing airway monitor O_2 Sat and $ETCO_2$ – Capnography Procedure #701 • Endotracheal Intubation – as indicated to control airway – Procedure #717 • Supraglottic Airway – as indicated to control airway– Procedure #718 • Needle thoracostomy with symptoms of tension pneumothorax or traumatic arrest with suspicion of chest trauma– Needle Thoracostomy Procedure #705 & Traumatic Cardiac Arrest Protocol #661	• **Foreign Body/Airway Obstruction** If obstruction not relieved with BLS maneuvers - Visualize and remove obstruction with Magill forceps - If obstruction persists, consider – Needle Cricothyrotomy Procedure #704 - Upon securing airway monitor O_2 Sat and $ETCO_2$ – Capnography Procedure #701 • Needle thoracostomy with symptoms of tension pneumothorax – Needle Thoracostomy Procedure #705 & Traumatic Cardiac Arrest Protocol #661 • Supraglottic Airway – as indicated to control airway– Procedure #718
Base Hospital Orders Only	
• **Symptomatic Esophageal Obstruction**	• **Symptomatic Esophageal Obstruction**

- **Glucagon** 1mg IV followed by rapid flush. Give oral <u>fluid</u> challenge 60 sec after admin - check a blood sugar prior • As needed	- **Glucagon** 0.1mg/kg IV not to exceed 1mg followed by rapid flush. - Give oral <u>fluid</u> challenge 60 sec after admin - check a blood sugar prior • As needed

Notes

- Oxygen Delivery
  - Mild distress – 0.5-6 L/min nasal cannula
  - Severe respiratory distress – 15 L/min via non-rebreather mask
  - Moderate to severe distress – CPAP 3-15 cm H2O
  - Assisted respirations with BVM – 15 L/min
- Patients requiring an advanced airway, providers shall decide which ALS airway to utilize based on discretion.
- After placement of any advanced airway, providers shall verify placement of the advanced airway by waveform capnography and a minimum of one additional method. This additional method can be any of the following:
  - Auscultation of lung and stomach sounds.
  - Colorimetric CO2 Detector Device.
  - Esophageal Bulb Detection Device.

Endotracheal Intubation

FOR USE IN PATIENTS >34 KG

BLS

Universal Protocol #601

Pulse Oximetry – O_2 administration per Airway Management Protocol #602

Supraglottic Airway – as indicated to control airway– Procedure #718

- Optional skills as approved by SLOEMSA

ALS

Indications:

- Patients with a respiratory compromise.
- Patients requiring airway stabilization, including cardiac arrest and ROSC.

Contraindications:

- Intact gag reflex

Policy:

- Prepare, position, and oxygenate the patient with 100% Oxygen. Ideal positioning is keeping the ears in line with the sternal notch.
- Consider use of video laryngoscopy when available.
- Select appropriate size ET tube and consider the need for endotracheal introducer (Bougie); have suction ready.
- Using the laryngoscope, visualize vocal cords.
- Determine how accessible the patient's airway is. If the patient has a complex airway (unable to visualize the vocal cords due to surrounding anatomy) which would be difficult and time consuming to intubate, consider the use of a supraglottic airway device Procedure # 718.
- Visualization of vocal cords will take no longer than 10 seconds.
- Visualize tube/bougie passing through vocal cords.
- Inflate the cuff with 3-10mL of air.
- Apply waveform capnography (reference Policy #701).
- Auscultate for bilaterally equal breath sounds and absence of sounds over the epigastrium.
- If ET intubation efforts are unsuccessful after the 1st attempt, oxygenate and re-evaluate the airway positioning before the 2nd attempt. After first failed attempt, consider use of Supraglottic Airways (reference Procedure #718).
- If ET intubation efforts are unsuccessful after the 2nd attempt, oxygenate and provider shall then proceed to Supraglottic Airway Procedure #718.
- Patients who have an advanced airway established shall have that airway secured with tape or a commercial device. Devices and tape should be applied in a manner that avoids compression of the front and sides of the neck, which may impair venous return from the brain.

- If the patient has a suspected spinal injury:

- Open the airway using a jaw-thrust without head extension.
- If airway cannot be maintained with jaw thrust, use a head-tilt/chin-lift maneuver.
- Manually stabilize the head and neck rather than using an immobilization device during CPR.

- Following placement of the Endotracheal Tube, if the patient is noted to have an ETCO2 less than 10, the ALS Provider shall extubate the patient and oxygenate prior to an additional attempt.

Base Hospital Orders Only

As needed

Notes

- Respiratory compromise is defined as any condition that prevents the movement of oxygenated air into and out of the lungs. This includes cardiac arrests.
- ETI during cardiac arrest is indicated if the ALS provider can accomplish intubation without interruption in HPCPR. With ALS provider judgement, determines ETI cannot be accomplished, provider shall proceed to Supraglottic Airway Procedure #718.
- Once an SGA has been placed, it should not be removed for an ETI.
- If the provider cannot accomplish an ALS airway, they should document in the PCR why an ALS airway wasn't accomplished.
- After placement of the Endotracheal Tube, providers shall verify placement of the ETI by waveform capnography and a minimum of one additional method. This additional method can be any of the following:
  - Auscultation of lung and stomach sounds
  - Colorimetric CO2 Detector Device
  - Esophageal Bulb Detection Device
- During placement of an ETI, apneic oxygenation is recommended to be utilized when available. If appropriate, providers shall place a nasal cannula onto the patient prior to the intubation attempt and continue use of the nasal cannula during placement to assist in oxygenation.

UNIVERSAL

MEDICAL	TRAUMA
BLS	

• Evaluate Scene Safety/Personal Protective Equipment
• Assess, establish and maintain airway
  ○ Suction as needed
• Pulse Oximetry
  ○ O_2 administration per Airway Management Protocol #602
• Evaluate breathing and circulation
• Assess chief complaint
• Focused physical exam and vital signs:
  ○ Pulse
  ○ Blood pressure
  ○ Respiratory rate
  ○ Lung sounds
  ○ Skin signs
• BLS treatment protocols
• Optional skills as approved by SLOEMSA.
	• Evaluate Scene Safety/Personal Protective Equipment
	• Assess, establish and maintain airway
	  ○ Suction as needed
	• Pulse Oximetry
	  ○ O_2 administration per Airway Management Protocol #602
	• Evaluate breathing and circulation
	• Control life-threatening bleeding
	• Remove patient's clothing to expose and identify injuries
	• Ensure patient warmth – cover patient after clothing removal to maintain core body temperature
	• Spinal motion restriction (SMR) if indicated per Spinal Motion Restriction Procedure # 702
	• BLS treatment protocols
	• Optional skills as approved by SLOEMSA

ALS	

• Vascular access – Procedure #710
• Consider 12-lead ECG early
• Capnography (if available/applicable)
• Blood Glucose Measurement
• Transport Determination
• ALS Treatment Protocols
Adult
• Consider Normal Saline up to 500mL IV
  ○ May repeat x1 for persistent hypotension
Pediatric
• Consider Normal Saline up to 20mL/kg
  ○ May repeat x1 for persistent hypotension
	• Trauma Triage and Destination
	• ALS Treatment Protocols

Base Hospital Orders Only	
• Determined on patient needs • If applicable, see Policy #219: Assisting Patients with Their Emergency Medications	• Determined on patient needs
Notes	
• Use Pediatric Policies for patients ≤34 kg and consider use of Broselow tape or equivalent • Rapid transport for Specialty Care patients (Trauma, STEMI, CVA-TIA). Target scene departure ≤ 10 minutes for transport personnel.	

DROWNING

ADULT	PEDIATRIC (≤34 KG)
BLS	
Consider scene safety and additional resources for victims requiring active rescue from aquatic environment • **In-Water Resuscitation:** Trained rescuers may initiate rescue breaths during extrication/rescue process, only if safe and effective, without delaying rapid removal from environment. (No chest compressions) • Obtain accurate time last known well/downtime - Universal Protocol #601 - O2 administration per Airway Management protocol #602 - **Prioritize the immediate reversal of hypoxia** • **ALS Assessment required** for persistent signs and symptoms of cough, abnormal lung sounds, altered mental status, hypoxia, hypotension, or dyspnea • **Apnea or cardiac arrest** - **5 initial rescue breaths prior to ventilation or compressions** - **Minimize interruptions in oxygenation and ventilation.** - PEEP valve with BVM when available - Expect vomiting, have suction ready - May ventilate through “foam” surfactant. • Consider hypothermia and warming measures • For an alert patient with SOB, apply CPAP Procedure #703	**Same as Adult**
ALS	
• **Persistent symptoms: cough, abnormal lung sounds, altered mental status, hypoxia, hypotension, dyspnea**	**Same as Adult**

- CPAP Procedure #703 as indicated - Monitor ETCO2 - Encourage transport and continued monitoring • **Apnea, or Cardiac Arrest** - Team to emphasize early high-quality ventilation, mask seal, and oxygenation techniques on scene - Cardiac Arrest Protocol #641 as indicated - **Early initiation** of ETI Procedure #717 or SGA Procedure #718 as indicated. - If non-shockable rhythms, may forego vector change (minimize ventilation interruptions) • **If high suspicion of trauma,** SMR Procedure #702. Avoid interruptions or delay in ventilation oxygenation during procedure and patient movement.	
Base Hospital Orders Only	
• Consult appropriate base station per EMS Base Station Report policy #121 as needed for patient presentation, downtime, trauma, airway concerns, prolonged resuscitation with PEA and Asystole, cold water immersion.	**Same as Adult**

Notes

- **Definition of drowning:** Respiratory impairment from submersion or immersion in a liquid.
- **Duration of submersion is the most important predictor of outcome.**
- **Hypoxia is the primary reversible cause of morbidity and mortality in drowning.**
- **Signs and symptoms include: cough, abnormal lung sounds, altered mental status, hypoxia, hypotension, dyspnea**
- Encourage transport of all symptomatic patients due to potential worsening over the next 6 hours.
- Early, effective ventilation and initiation of CPR are the most critical for improving survivability and neurologic outcomes.
- Surfactant is fluid from the lungs, usually “foam-like” and may be copious, DO NOT waste time attempting to suction. Ventilate with BVM through foam (suction water and vomit only when present.) Use judgement for need to suction copious fluids versus interrupting ventilation/oxygenation.
- PEA and Asystole Cardiac Arrest may benefit from prolonged resuscitation and/or transport in the presence of drowning/hypoxia. Use provider judgement and consult base as needed.
- Utilize bystanders, lifeguards, or other witnesses for accurate scene report and downtime.
- C-Spine immobilization not recommended except with strong evidence/report of traumatic mechanism.
- AHA guidelines 2024 show in-water rescue breaths leading to increased survival. Rescue phase

breaths should NOT be performed if the rescue agency does not train and/or practice this technique. Should not delay extrication to a controlled and safe working environment.

- Regardless of water temperature – resuscitate all patients with known submersion time of ≤ 25 minutes.
- SCUBA Diving emergencies, collect dive plan/dive computer data if available. Consider pertinent info for hospital or operational hyperbaric chamber.
- Drowning is a global issue with poor documentation and data, documentation should reflect current definitions and guidelines based on patient presentation and terminology.
- Document: witness statements, submersion time, type of water/temperature, initial presentation and neurological status, bystander interventions.
- DO NOT use terminology: “near drowning,” “dry drowning,” “delayed drowning,” “secondary drowning,” “wet drowning” with patients or with documentation as it is not physiologically relevant.

ATRIAL FIBRILLATION

ADULT	PEDIATRIC (≤34 KG)
BLS	
• **Universal Protocol #601** • Pulse Oximetry - O2 administration per Airway Management Protocol #602	Same as Adult
ALS	
Stable • Observe and monitor the patient **Unstable (See Notes)** • Consult the Base Hospital **Extremis (See Notes)** • Consider Midazolam up to 2mg slow IV or 5 mg IN (split into two doses 2.5 mg each nostril) to pre-medicate • Synchronized/Unsynchronized cardioversion sequences (see notes) • Synchronized cardioversion **200 J**. • Use manufacturer-recommended energy settings if different from above	None
Base Hospital Orders Only	
• Unstable pt	• As needed

Notes

- Obtain 12-lead ECG before and after conversion, if possible.
- Vascular access may be omitted prior to cardioversion if unstable.
- Consider and treat underlying causes in unstable patients with atrial fibrillation and atrial flutter, i.e., sepsis, dehydration/hypovolemia, med errors, etc.
- Synchronized/Unsynchronized Sequences
  (If synchronized mode is unable to capture, use unsynchronized cardioversion.)
- Unstable is defined as a pt in A-FIB RVR presenting with signs/symptoms of hemodynamic instability:
  - SBP < 100 mmHg
  - Evidence of poor perfusion – capillary refill, color, temp, etc.
  - Altered Mental Status
  - Shortness of breath
  - Pulmonary edema
- Extremis is defined as a pt in A-FIB RVR, and imminent death is likely

SUPRAVENTRICULAR TACHYCARDIA

ADULT	PEDIATRIC (≤ 34Kg)
BLS	
• **Universal Protocol #601** • Pulse Oximetry - O_2 administration per Airway Management Protocol #602	Same as Adult
ALS	
Stable • Attempt vagal maneuvers • **Adenosine** 6 mg IV followed by 20 mL NS bolus • **Adenosine** 12 mg followed by 20 mL NS bolus o May repeat once **Unstable** • Synchronized cardioversion (see notes) • **Midazolam** up to 2 mg slow IV or 5 mg IN (split into two doses 2.5 mg each nostril) to pre-medicate prior to cardioversion	**Stable** • Attempt vagal maneuvers • **Adenosine** 0.1 mg/kg IV followed by 20 mL NS bolus • **Adenosine** 0.2 mg/kg IV followed by 20 mL NS bolus **Unstable** • Synchronized cardioversion (see notes) • **Midazolam** 0.1 mg/kg slow IV/IN, not to exceed 2 mg to pre-medicate prior to cardioversion
Base Hospital Orders Only	
• ~~Cardioversion of unstable Atrial Fibrillation with RVR~~ • As needed	• ~~As needed~~

Notes

- Obtain 12-lead ECG before and after conversion if possible
- Preferred IV site for Adenosine administration is in a proximal vein with a large bore catheter
- Vascular access may be omitted prior to cardioversion if in extremis
- Typical SVT in adults is a QRS < 0.12 seconds
- Typical SVT in pediatric patients is a QRS < 0.09 seconds with rates >180 for children and >220 in infants
- Avoid Adenosine in atrial fibrillation and atrial flutter
- ~~Consider and treat underlying causes in unstable patients with atrial fibrillation and atrial flutter, i.e. sepsis, dehydration/hypovolemia, medication errors, etc.~~
- Synchronized/Unsynchronized Sequences
  (if synchronized mode is unable to capture use unsynchronized cardioversion)
- Use manufacturer recommended energy settings if different from below

ADULT	PEDIATRIC
50 J	1 J/kg
70/75 J	2 J/kg
100 J	2 J/kg
120 J	
150 J	
200 J	

~~(start at 120J in adult patient with unstable Atrial Fibrillation with RVR)~~

SHOCK (MEDICAL) - HYPOTENSION/SEPSIS

ADULT	PEDIATRIC (≤34 KG)
BLS	
• **Universal Protocol #601** • Pulse Oximetry - O2 administration per Airway Management Protocol #602 • Place in supine position if tolerated	Same As Adult
ALS	

SBP < 100 mmHg or other signs of hypotension
• Normal Saline 500 mL IV/IO
  - Repeat x1 if hypotension persists
• Consider establishing secondary IV access
• Consider 12-lead ECG
• If shock is due to trauma refer to General Trauma Protocol #660
Persistent Hypotension
• Push-Dose Epinephrine 10mcg/mL 1 mL IV/IO every 1-3 minutes
  - Repeat as needed, titrated to SBP >90mmHg
  - See notes for mixing instructions
OR
• Epinephrine Drip starting at 10mcg/min IV/IO infusion
  - Consider for extended transport
  - See formulary for mixing instructions
SBP > 100 mmHg
• Consider Normal Saline 500 mL IV/IO
  - May repeat x1 based on ALS provider discretion.
	Signs of hypotension specific to age - see Universal Protocol #601 Attachment A
	• Normal Saline 20 mL/kg IV/IO not to exceed 500 mL
	  - Repeat x1 if hypotension persists
	• Consider establishing secondary IV access
	• If shock is due to trauma refer to General Trauma Protocol #660
	Normotensive specific to age - see Universal Protocol #601 Attachment A
	• Consider Normal Saline 20 mL/kg IV/IO, not to exceed 500 mL
	  - May repeat x1 based on ALS provider discretion

Base Hospital Orders Only	
• As needed	• As needed
Notes	
• **Mixing Push-Dose Epinephrine 10 mcg/mL (1:100,000): Mix 9mL of Normal Saline with 1mL of Epinephrine 1:10,000, mix well** • Fluids should always be given prior to initiating Push-Dose Epinephrine • Consider the underlying causes of shock	

- Use caution with fluid challenges if signs of CHF of liver, or renal failure
- Keep the patient warm
- Treatable/Reversible considerations:
    - Hypoxemia
    - Tachycardia/Bradycardia
    - Hyper/Hypothermia
    - Hypovolemia
    - Altered Mental Status
    - Fractures/Bleeding/Tension Pneumothorax
    - Anaphylaxis
    - Chest pain
    - Overdose