# Clinical Advisory Subcommittee
of the Emergency Medical Care Committee

## Meeting Agenda
10:15 A.M., Tuesday March 12th, 2019

Health Agency Campus, 2nd floor Large Conference Room
2180 Johnson Avenue, San Luis Obispo

### Members
- **CHAIR:** Dr. Stefan Teitge, County Medical Society
- Dr. Raul Easton-Carr, County Medical Society
- Lori Tobey, MICNs
- Rob Jenkins, Fire Service Paramedics
- Nate Otter, Ambulance Paramedics
- Paul Quinlan, Fire Service EMTs
- Dr. Noah Hawthorne, Non-Base Station ED Physicians
- Vacant, Base Station ED Physicians
- Arneil Rodriguez, Ambulance EMTs
- Casey Hidle, Lead Field Training Officer
- Jason Melendy, Medical Director Appointee

### Staff
- **STAFF LIAISON:** Douglas Brim, EMS Coordinator
- Vince Pierucci, EMS Division Director
- Dr. Tom Ronay, Medical Director
- Michael Groves, EMS Coordinator
- Kyle Parker, EMS Coordinator
- Michelle Pinney, EMS Admin Assistant III

### AGENDA

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### Meeting Dates for 2019
- Second Tuesday of every other month
  - May 14th
  - July 19th
  - September 10th
  - November 12th
- 1015 hrs - 2nd floor Conference Room, Health Agency
Clinical Advisory Subcommittee  
of the Emergency Medical Care Committee  
Summary Notes  
10:25 A.M. January 15th, 2019  
Health Agency Conference Room

- Dr. Stefan Teitge, Chair, County Medical Society  
- Dr. Raul Easton-Carr, County Medical Society  
- Lori Tobey, RN, MICNs  
- Rob Jenkins, Fire Service Paramedics  
- Nate Otter, Ambulance Paramedics  
- Paul Quintan, Fire Service EMTs  
- Dr. Noah Hawthorne, Non-Base Station ED Physicians (Pending)  
- Casey Hidle, Lead Field Training Officer  
- Dr. Joe Robinson, Base Station ED Physicians  
- Jason Melendy, Medical Director Appointee  
- Arneil Rodriguez, Ambulance EMTs  

**CALL TO ORDER**

**Introductions**
Dr. Hawthorne is welcomed to the committee, will have his nomination reviewed for confirmation at next EMCC. Dr. Robinson is noted to have officially resigned his position on the subcommittee.

**Public comment**
Summary notes from November 13, 2018
Previous meeting’s minutes reviewed. N. Otter asks question regarding number needed for quorum, D. Brim answers that half of voting members constitute a quorum.

**Discussion**

**Approval of TXA for LOSOP by the state EMS Authority** – D. Brim follows up on the Nov. discussion regarding submission of a local optional scope of practice (LOSOP) application to the state. The state approved LOSOP application on 11/29/18. The approved formulary and administration protocol (draft procedure #714) are presented to group. Question is posed to the group of where, and how TXA should be fit within the existing treatment protocols.

Dr. Ronay reports that the indications, contraindications, etc., must remain consistent with the formulary and procedure approved by the state. Also stated that further work will be done to train field providers and develop appropriate QI indicators (which have to be reported to the state as part of LOSOP).

L. Tobey inquires about changing the age restriction (>= 15y/o) to a weight restriction to create consistency with existing SLO Co protocols. J. Melendy asks what the estimated number of uses will be. D. Brim, the state scope committee was very specific about the wording on the age restriction, but there may be an opportunity to reconcile if the LOSOP gets moved to basic scope in the future. Per the joint state application, there is an estimated 20 uses a year.

J. Melendy asks about the indications for blunt trauma patients. Dr. Ronay explains that TXA is typically useful in patients with abdominal injuries, splenic and hepatic bleeds and in multisystem trauma. Dr. Ronay adds TXA is contraindicated for blunt trauma causing isolated head injury.

J. Melendy and R. Jenkins ask questions about sequencing of TXA and fluid bolus. L. Tobey states that the TXA can likely be piggy-backed on to the bolus of saline.

R. Jenkins asks if there has been a discussion about stocking of TXA on transport vs. First Responder equipment. Notes he has seen the price at about 40$ a dose and does not feel the cost is a factor. Dr. Ronay reports that studies have been done with TXA deployed in both transport and first-responder equipment. D. Brim reports there has not been much discussion on specifics regarding stocking yet.

N. Otter comments on the listed adverse effects of hypotension. Dr. Ronay, this is a rare, self-limiting, transient reaction of unknown etiology. D. Brim reports that the state scope committee required uniformity in stated adverse effects. R. Jenkins comments on the contraindication of “a strong expectation of re-implantation.” Dr. Ronay, there...
are theoretical concerns and debates about pro-thrombotic activity impeding perfusion in re-implantation cases. Notes there will be an element of provider judgement weighing an amputated finger versus life-threatening multisystem trauma. D. Brim notes, this could be a good area to rely on base station consult, notes the hypotensive trauma patient will also be a step 1 Trauma Alert, should get some dose of fluids and early base contact.

D. Brim requests input from group on: TXA indicated for a transient SBP <= 90, integration in #706, and #661? L. Tobey suggests emphasis on teaching on thorough assessment. R. Jenkins advises TXA be left out of #706 and gearing wording towards “Consider TXA.”

Draft Protocols of integration of Approved EMT Elective Skills
D. Brim reports that the EMT elective skills recommended for adoption into SLO county by CAC in July 2017 have been approved for use (as defined in administrative policies 215 and 216) by EMCC. The EMS Agency is working with partners at CalFire to implement an approved initial training program. The approved elective skills need to be integrated into the existing treatment protocols. D. Brim presents all attached draft protocols to the group, notes that in addition to the inclusion of the new elective skills pulse oximetry was moved to BLS section of each protocol reflecting most recent T22 EMT basic scope of practice.

L. Tobey inquires if diphenhydramine for stable allergic reactions can be moved from “Base Hospital Order” to “ALS Standing Order.” Dr. Ronay notes medics have had good appropriate use of diphenhydramine. Dr. Hawthorne states he has no concerns with this being standing order. D. Brim asks for group consensus.

R. Jenkins reports that the trainings for the new skills have been progressing well. N. Otter asks how BLS providers will integrate capnography into their process of using CPAP and if there will be a requirement for ALS to restock the BLS providers. D. Brim, capnography an ALS tool per state regulations, but there is no prohibition on BLS responders stocking the side-stream cannulas to place under a mask. P. Quinlan asks about new skills sheets with these skills. Dr. Hawthorne states that use of CPAP is a clinical judgement, use of capnography in this setting is more important for trending, not necessarily important for initial decision to use CPAP. Dr. Ronay thinks capnography is a valuable tool for ongoing assessment.

Dr. Ronay asks group to review the starting therapeutic ranges for CPAP. D. Brim points out the addition of allergic reaction with bronchospasm to suggested therapeutic ranges.

M. Groves adds to conversation that as basic scope of practice for EMTs in state CPAP will be broadly taught in newer EMTs. N. Hawthorne asks if nebulizers can be used with CPAP. R. Jenkins reports that CalFire will be buying the CPAP with built-in nebulizer for medic’s integration when they arrive on-scene.

D. Brim solicits input about repeat timing of EMT elective scope blood glucose measurement after oral glucose administration. R. Jenkins expresses doubts about BLS confidence with GCS. N. Otter and R. Jenkins recommend language focus on patient being able to “self-administer.”

Dr. Ronay asks for report on progression of ALS agencies from D50 to D10. N. Otter reports D10 is working well. All ALS providers present report some doses of D50 are still on stock.

Patient positioning for shock
D. Brim reports on discussion from FTO group regarding confusion about ideal positioning for hypotensive patients, shock position, Trendelenburg, supine. Dr. Ronay affirms that Trendelenburg is not indicated, but that there is likely no harm in raising the feet 10 degrees (shock position). N. Hawthorne states he believes supine is best for hypotensive trauma, “shock position” may have limited benefit in vasovagal syncope, no real clinical validation. C. Hidele states that there is likely confusion amongst providers regarding Trendelenburg vs. shock position. R. Jenkins, a bulletin may be helpful.

Announcements
None

Adjournment
1134 hrs – adjourned by D. Brim
### MEETING DATE
March 12th, 2019

### STAFF CONTACT
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### SUBJECT
Selection of vasopressors

### SUMMARY
Following the approval of push-dose epinephrine (PD epi) as an alternative vasopressor to dopamine at EMCC in October 2018 the EMS Agency has fielded several questions regarding the future use of dopamine as PD epi becomes integrated into the prehospital treatment protocols.

Transition to the prehospital use of PD epi is expected to occur in the next several months and is pending: development and implementation of a training program by the FTO group, completion of a new EMS field provider app where the up-to-date protocols will be available.

Once the new protocols are in use PD epi is expected to offer the following benefits over dopamine:

- Easier, more accurate dosing
- Ability to assemble and administer dose more rapidly in deteriorating unstable patients
- Potentially superior pharmacology for many types of fluid-refractory shock, i.e.; septic shock, anaphylactic shock, cardiogenic shock due to atropine-resistant bradycardias, neurogenic shock.

Dopamine may continue to have the following advantages over PD epi:

- Use of infusion over long transport times instead of multiple doses
- Physician preference for dopamine in some specific cases of cardiogenic shock

### REQUESTED ACTION(S)
The EMS Agency requests input from the sub-committee on the subject above, with specific recommendations on the following question:

- Should dopamine remain available (in reduced stocking) on ALS equipment for potential use as an alternative to push-dose epinephrine, or should dopamine be completely removed from all ALS equipment?

- If dopamine IS NOT completely removed, are there specific guidelines that might be placed into the attached protocols directing Paramedics and MICNs which agent (dopamine or PD epi) should be preferentially requested during base station consultation?

- If dopamine IS completely removed, should the formulary be amended to include the possibility of epinephrine drips for ongoing infusion after PD epi bolus (sample attached)?
BRADYCARDIA
HEART RATE < 60

MAINTAIN AIRWAY
ADMINISTER OXYGEN
MONITOR ECG/PULSE OXIMETER
VITALS
ESTABLISH IV

ASSESS FOR SIGNS OR SYMPTOMS OF POOR PERFUSION RELATED TO BRADYCARDIA
- ALTERED MENTAL STATUS
- CHEST PAIN
- SHORTNESS OF BREATH
- HYPOTENSION

ADEQUATE PERFUSION

POOR PERFUSION

- PREPARE FOR TRANSCUTANEOUS PACING (TCP) AT A RATE OF 80
- CONSIDER ATROPINE 0.5 MG IV WHILE AWAITING PACER. MAY REPEAT TO A TOTAL DOSE OF 3 MG. IF INEFFECTIVE, BEGIN PACING
- CONSIDER EPINEPHRINE DRIP 2-8 MCG/MIN WHILE AWAITING PACER OR IF PACING INEFFECTIVE OR
- CONSIDER DOPAMINE DRIP 2-10 MCG/KG/MIN WHILE AWAITING PACER OR IF PACING INEFFECTIVE

TREAT UNDERLYING CAUSES
CONTACT BASE STATION