MINUTES

EMERGENCY MEDICAL SERVICES & TRAUMA SYSTEM

DIVISION OF COMMUNITY HEALTH

DRUG/DEVICE/PROTOCOL (DDP) COMMITTEE

June 7, 2023 – 9:00 A.M.

MEMBERS PRESENT

Michael Holtz, MD, CCFD, Chair
Jeff Davidson, MD
Mike Barnum, MD, AMR
Nate Jenson, DO, MFR
Jim McAllister, LVMS
Samuel Scheller, GEMS
Steve DePue, CCFD
Walter West, BCFD (Alt)
John Osborn, CA
Kelly Morgan, MD
Jessica Leduc, DO, HFD
Chief Frank Simone, NLVFD
Chief Shawn Tobler, MFR
Todd Ford, HFD (Alt)
Chief Stephen Neel, MVFD
Derek Cox, LVFR
Sydni Senecal, OptimuMedicine
Chief Kim Moore, HFD

MEMBERS ABSENT

Nigel Walton, BCFD
Troy Biro, AirMed Response
Karen Dalmaso-Hughey, AMR
Alicia Farrow, Mercy Air

SNHD STAFF PRESENT

Christian Young, MD, EMSTS Med. Director
Laura Palmer, EMSTS Supervisor
Stacy Johnson, Regional Trauma Coordinator
Nicole Charlton, EMS Program/Project Coordinator
John Hammond, EMSTS Manager
Roni Mauro, EMSTS Field Representative
Rae Pettie, Recording Secretary

PUBLIC ATTENDANCE

Sandra Horning, MD
Mark Calabrese
Andrew McWhorter
Bryan Gines
Benjamin Hartnell
Jennifer Wayne
Akahi Pinkerton
Todd Ford
Brett Olbur
Stephanie Teague
Rebecca Carmody
Alexus Pada
Jason Perlmutter
Emily Keener
Eric Schultz
Alex Turner
Sawyer Epstein
Kat Fivelstad, MD
David Obert, DO
Michael Schafer
Oliver Meza
James Loman
Richard Mora
Kim Escobar
Aaron Goldstein
Christopher Dobson
James “Bud” Adams
Sean Collins
Maya Holmes
Derek Minyard
Jason Velazquez
Daniel Rich
Jimi Vargas
Andrew Wilkson

CALL TO ORDER - NOTICE OF POSTING OF AGENDA

The Drug/Device/Protocol (DDP) Committee convened in the Red Rock Conference Room at the Southern Nevada Health District on Wednesday, June 7, 2023. Chairman Mike Holtz called the meeting to order at 9:02 a.m. and stated the Affidavit of Posting was posted in accordance with the Nevada Open Meeting Law. Some Committee members joined the meeting via teleconference. Laura Palmer, EMSTS Supervisor, noted that a quorum was present.

I. FIRST PUBLIC COMMENT

Members of the public are allowed to speak on Action items after the Committee's discussion and prior to their vote. Each speaker will be given five (5) minutes to address the Committee on the pending topic. No person may yield his or her time to another person. In those situations where large groups of people desire to address the Committee on the same matter, the Chair may request that those groups select only one or two speakers from the group to address the Committee on behalf of the group. Once the action item is closed, no additional public comment will be accepted. Dr. Holtz asked if anyone wished to address the Board pertaining to items listed on the agenda.

Bud Adams stated that in the first quarter of this year there have been a couple dozen calls in the Southwest related to spider bites and scorpion stings. He made a recommendation to consider adding a protocol for Envenomations to address treatment for bites and stings from insects that are endemic to the Southwest.

II. CONSENT AGENDA

Dr. Holtz stated the Consent Agenda consists of matters to be considered by the DDP that can be enacted by one motion. Any item may be discussed separately per Committee member request. Any exceptions to the Consent Agenda must be stated prior to approval.

Approve Minutes for the Drug/Device/Protocol Committee Meeting: April 5, 2023

A motion was made by Chief Moore, seconded by Chief Neel, and carried unanimously to approve the Consent Agenda as written.

III. REPORT/DISCUSSION/POSSIBLE ACTION

A. Discussion of AEMTs Administering Epinephrine 1:10,000 in Adult Cardiac Arrest

Dr. Holtz reported that upon review of the recording from the April meeting, the committee didn't vote on agenda Items A and B. He stated that a proposal was made by Dr. Hodnick to allow AEMTs to administer Epinephrine 1:10,000 for cardiac arrest to take the burden off the paramedic to perform higher level tasks, especially when it comes to airway management.

A motion was made by Chief Neel, seconded by Chief Tobler, and carried unanimously to allow AEMTs to administer Epinephrine 1:10,000 to adults for cardiac arrest.

B. Discussion of AEMTs Performing Pediatric IOs in Unconscious/Unresponsive Patients

Dr. Holtz stated that AEMTs have already been approved for adult IO administration. There was a proposal to allow AEMTs to perform pediatric IOs in the field, which is currently a paramedic-only skill. He noted there was previous discussion of not wanting to allow it for conscious pediatric patients because of the limitation on administering Lidocaine for pain control. He stated that in the last meeting the decision was made to utilize this only for unconscious or unresponsive pediatric patients. Chief Tobler stated the current protocol doesn't allow AEMTs to administer Lidocaine to a patient responsive to pain. After some discussion it was agreed the agencies will review past charts to see how many conscious IOs are being done and determine whether there is a need for future consideration.

A motion was by Chief Neel, seconded by Chief Tobler, and carried unanimously to allow AEMTs to perform pediatric IOs on unconscious, unresponsive pediatric patients.

C. Discussion of Adult/Pediatric Ventilation Management Protocols

Dr. Young referred the committee to a spreadsheet listing all medications for induction, sedation, and analgesia for the Adult Ventilation Management, Pediatric Ventilation Management, and Endotracheal Intubation protocols. He stated that in both the adult and pediatric Ventilation Management protocols there are medications listed for

both induction and post-intubation sedation. The adult Ventilation Management protocol starts with Etomidate, then Ketamine as the second-line agent for induction. The pediatric Ventilation Management protocol starts with Midazolam, with the second-line agent Ketamine, and Etomidate as a subsequent alternate for induction. The Endotracheal Intubation protocol starts with Etomidate, followed by Ketamine, then Midazolam. Dr. Young suggested they remove the medications listed in the Endotracheal Intubation protocol, but leave the airway interventions, positioning, evaluating for difficult intubations, ETCO2, and QI metrics in place. The medications can then be incorporated into the appropriate Ventilation Management protocols. He noted there are differences in the sedatives and dissociative agents related to induction and post-intubation sedation for all three protocols, and suggested they simplify it to eliminate confusion. He stated Dr. Sandra Horning raised a concern about adding a max dose of 200 mg IV for Ketamine because there is currently a weight-based dose listed, but no max dose like there is for Midazolam. She suggested a max dose of 200 mg IV with a total maximum dose of 400 mg IV in 24 hours. Drs. Young and Holtz agreed that a max dose of 200 IV would be reasonable. Dr. Horning stated the literature is not very clear, and there are a lot of different opinions. The concern is the development of hypotension if you get too high in the dosing. There are many children who weigh a lot in this day and time, so there has been concern they were getting too much. Much of the literature search is based on procedural sedation, but there are concerns about how much is actually given in a 24-hour period for sedation as well. Mr. Ford asked if there was a concern with hypertension. Dr. Horning responded that is a concern with excessive doses. Mr. Cox asked her to define an excessive dose. She replied there is controversy there as well. Anesthesiologists use 100-150 mgs as a max dose; others use 200 mgs, so it's still not clear. Dr. Young asked whether they should add a max dose for Ketamine for induction. Dr. Davidson said to keep in mind that these are one-time doses. It's not a situation like the E.D. where you may give a second dose.

Dr. Holtz noted that another issue they'll run into if they remove medications from the Endotracheal Intubation protocol is under post-intubation sedation. The Endotracheal Intubation protocol lists Ketamine or Midazolam as an option, whereas the adult Ventilation Management protocol lists Midazolam or Diazepam, but not Ketamine, so they will need to add Ketamine for post-intubation sedation as an option for adults. Chief Neel stated he remembers that they approved adding Midazolam for post-intubation sedation for pediatrics. Dr. Young stated there was also discussion about giving Versed as an induction agent. Dr. Davidson stated that a big part of the discussion is there are multiple recurring drug shortages. Although they're discussing the Versed shortage, they have already been notified there is a national shortage of Ketamine as well.

Dr. Morgan stated she agreed with adding Ketamine and Midazolam to the Pediatric Ventilation Management protocol. She understands the concerns about not giving post-intubation medications for sedation too quickly after the initial dose. She noted that if they're too prescriptive on the time frame the providers lose their ability to look at the patient and understand what their patient needs post-sedation. She recommended they put a caveat in the pearls about timing the medications for post intubation. Also, to remind providers that sometimes Fentanyl is enough and tends to cause hypotension like some of the other medications, Ketamine notwithstanding. She noted that a lot of that can be covered in education.

The committee discussed the need to standardize the medication options in terms of order. Dr. Horning stated that in looking at the literature she would order it Etomidate, then Ketamine, then Midazolam. She noted the issue with Etomidate is sepsis. Potential sepsis in children is controversial, but some people feel it shouldn't be used if there's a question of sepsis. However, some people feel that the literature is not correct.

A motion was made by Dr. Holtz, seconded by Chief Simone, and carried unanimously to remove the medication options from the Endotracheal Intubation protocol and reorder the medications listed on both the Adult and Pediatric Ventilation Management protocols.

Dr. Barnum stated the only current options for induction for adult intubation are Etomidate and Ketamine. He noted that the receiving facilities are out of Etomidate and have a very limited supply of Ketamine. They are currently being told that the re-supply for Etomidate is forecasted to be 2025, so they need to explore other options for induction for adult intubation. In past discussions he suggested they consider adding Midazolam as an induction agent. It's currently limited to pediatrics. There were concerns about overdose, about it not being enough, and about the hemodynamic stability of using Versed alone. Since they are in a crisis with not having the medication available, he thinks the safest option is to go with not enough, and re-doses as necessary through medical control. Dr. Young asked if they make the max single dose 5 mg vs. 10 mg, are you not going to give enough vs. giving too much? Dr. Barnum replied that that's where the conversation bogged down at the last

meeting. In the interest of satisfying everybody's concerns and to avoid the possibility of the likelihood of overdose he suggested 0.1 mg/kg with a max dose of 5 mg, and then re-doses with medical control. Dr. Morgan noted that the providers in the field don't carry paralytics. So, if they're trying to put somebody down to intubate them, they are limited by having to call for medical control. They don't always get someone who is familiar with the protocols and may not get that second dose while their patient is potentially in an airway crisis. They can make the max dose of Midazolam 10 mg for induction, with the caveat that they need to look at their patient. If he isn't always hypotensive, they need to ensure that they add a pressor since they don't have a paralytic to aid in intubation like they have in the E.D. The chances of having a patient getting trismus or not getting adequately sedated to successfully secure an airway is a very real consideration. Dr. Barnum agreed, and stated he is fine with a max dose of 10 mg for induction. Dr. Holtz stated it wouldn't be unreasonable to not have a max of 10 mg when they have a max of 10 mg for post-sedation intubation. The concern is the effect on blood pressure; hypotension needs to be controlled aggressively.

Dr. Barnum made a motion to add "Midazolam 0.1 mg/kg IV/IO/IN, max single dose of 10 mg; repeat doses with physician order only" to the Ventilation Management and Pediatric Ventilation Management protocols. The motion was seconded by Chief Neel and carried unanimously.

Mr. Ford stated he has heard several times about the hemodynamic instability about pre-treating with pressors, but the contraindications for Midazolam in the formulary include hypotension and clinical signs of shock. If you're treating with a pressor then they have signs of shock, so they may need to look at changing the contraindications.

D. Discussion of the Use of Mechanical CPR Devices in Pregnancy – Tabled

IV. INFORMATIONAL ITEMS/ DISCUSSION ONLY

Dr. Holtz asked that all future requests for agenda items be accompanied by a draft version of the recommended changes. Ms. Palmer noted that the OEMSTS posts meeting agendas that include all handouts a week prior to the meeting so the public can view them before attending. She asked that these materials be submitted in a timely manner.

V. SECOND PUBLIC COMMENT

Members of the public are allowed to speak on Action items after the Committee's discussion and prior to their vote. Each speaker will be given five (5) minutes to address the Committee on the pending topic. No person may yield his or her time to another person. In those situations where large groups of people desire to address the Committee on the same matter, the Chair may request that those groups select only one or two speakers from the group to address the Committee on behalf of the group. Once the action item is closed, no additional public comment will be accepted. Dr. Holtz asked if anyone wished to address the Board pertaining to items listed on the agenda. Seeing no one, he closed the Public Comment portion of the meeting.

VI. ADJOURNMENT

There being no further business to come before the Committee, the meeting was adjourned at 10:08 a.m.