Update from the Office of EMS
Volume XVV, Issue VII

Regional Office Updates

After faithfully serving over 27 years, Dr. Adam Robertson retired as the BREMSS Medical Director on March 31, 2019. We expressed our appreciation and presented Dr. Robertson with a special recognition at a recent BREMSS Medical Direction and Accountability Committee meeting. Dr. Will Ferguson graciously agreed to become the next BREMSS Medical Director on April 1, 2019. We welcome Dr. Ferguson and the wealth of knowledge, experience, and enthusiasm he brings to BREMSS and the Alabama EMS System.

Michael Minor

BREMSS Director

Dr. Ferguson introduces himself by saying this-

"My insight in emergency care has been from the prospective of a Basic EMT, a RN, a Flight nurse, and now that of an attending physician at UAB. I started my career in the Emergency Department at Charity Hospital of New Orleans as a new graduate RN . I had completed a basic EMT course the summer before and already fallen in love with emergency care. My nursing career spanned almost 14 years and included experience as a flight nurse. However, at the age of 36, I went to medical school and then completed a residency in emergency medicine where I also served as chief resident. Afterwards, I completed an EMS fellowship and have continued to be active in EMS education and medical direction. I have been involved in EMS education for well over 25 years now, from helping with EMT clinical skills, to precepting in the ED in the 1990's, instructing in AHA courses, to speaking regionally and nationally. In 2014 I coordinated a Critical Care/ Critical thinking Paramedic class that led to the Alabama EMS Challenge Program which provides free monthly educational experiences and a biannual cadaver lab to EMS Providers. I am very excited for the opportunity to help continue the growth of EMS in the BREMSS region and know that the ground work for this continued growth has been laid out by my predecessor, Dr Adam Robertson. I have a strong vision for the future of EMS and recognize for EMS to thrive in the ever-changing health care environment, EMS must grow and adapt, both as a profession and in how it is perceived and held accountable to its patients and the medical community. I look forward to working with the men and women who faithfully serve our region's EMS needs on a daily basis."

Will Ferguson, MD, FACEP, FAAEM

Compliance Issues

Name	Rule/Protocol	Complaint	Action Taken
James Green EMSP-EMT #1100254	420-2-1-.17	Falsification of Documentation	Suspension
Brent Lanthrip EMSP-Paramedic #0500751	420-2-1-.13	Documentation	Suspension
Casey Rager EMSP-Paramedic #9359879	420-2-1-.30	Patient Care Issues	Remediation
Kevin Tyson EMSP-Paramedic #1500270	420-2-1-.07	Patient Confidentiality	Suspension
EMSP-Paramedic	420-2-1-.29	Impairment	Suspension
EMSP-Paramedic	420-2-1-.29	Impairment	Suspension
EMSP-Paramedic	420-2-1-.29	Impairment	Suspension

Provider Service Inspections

These inspections were completed January-March, 2019.

Air Evac-Colbert County

Air Evac-Jackson County

Alexander City Fire Department

Allgood VFD

AmServ EMS-Bibb County

Anniston EMS

Anniston Fire Department

ASAP Ambulance, Inc.

ASAP EMS-Clarke County

ASAP EMS-Monroe County

Atmore Ambulance, Inc.

Bessemer Fire Department

Blount EMS

Care Ambulance-Chilton County

Care Ambulance-Montgomery County

Care Ambulance-Russell County

Choctaw County EMS

Clanton Fire Department

Clay EMS

Collins Chapel Fire and Rescue

Crawford VFD

DeKalb Ambulance Service

Demopolis Fire Department

East Alabama EMS

East Alabama Fire District

Eclectic Fire Department

Emergency Medical Transport

EMS Care

Excelsior Ambulance Service

Fairview VFR

Green Pond Fire and Rescue

Haynes Ambulance-Montgomery County

Highland EMS

Jacksonville FD

Jemison FD

Keller EMS-Colbert County

Keller EMS-Franklin County

Lafayette Fire and EMS

Lanett Fire and EMS

Provider Service Inspections continued

LifeCare Ambulance

Lifeguard Ambulance Service-Escambia County

Lifesaver 3-Chambers County

Littleville FD

Livingston Fire & Rescue

Locust Fork Fire & Rescue

MedCare EMS, Inc.

Midfield Fire Department

Millbrook Fire Department

Montgomery Fire/Rescue Department

Nectar Fire Department

North Chilton VFD

Oneonta Fire

Opelika Fire Rescue

Oxford EMS

Phil Campbell Rescue Squad

Pickens County Ambulance Service

Piedmont EMS

Pine Mountain Fire and Rescue

Pintlala VFD

Progressive Health

Rosa Volunteer Fire and Rescue

RPS-Chilton County

Russellville FD

Scottsboro FD

Shoals Ambulance-Colbert County

Simmons EMS

Smiths Station Fire and Rescue

Snead Fire and Rescue

Southern Emergency Medical

Tallapoosa EMS

Thorsby Fire and Rescue

Vines Ambulance Service

West Blount FD

Culture of Excellence

Air Evac EMS-Colbert County

Air Evac EMS-Jackson County

Care Ambulance-Montgomery County

Choctaw County EMS

Crawford VFD

DeKalb Ambulance Service

East Alabama Fire District

Eclectic Fire Department EMS

Montgomery Fire/Rescue Department

Pickens County Ambulance Service

Shoals Ambulance-Colbert County

Thorsby Fire & Rescue

Ketamine and Its Prehospital Use in Alabama

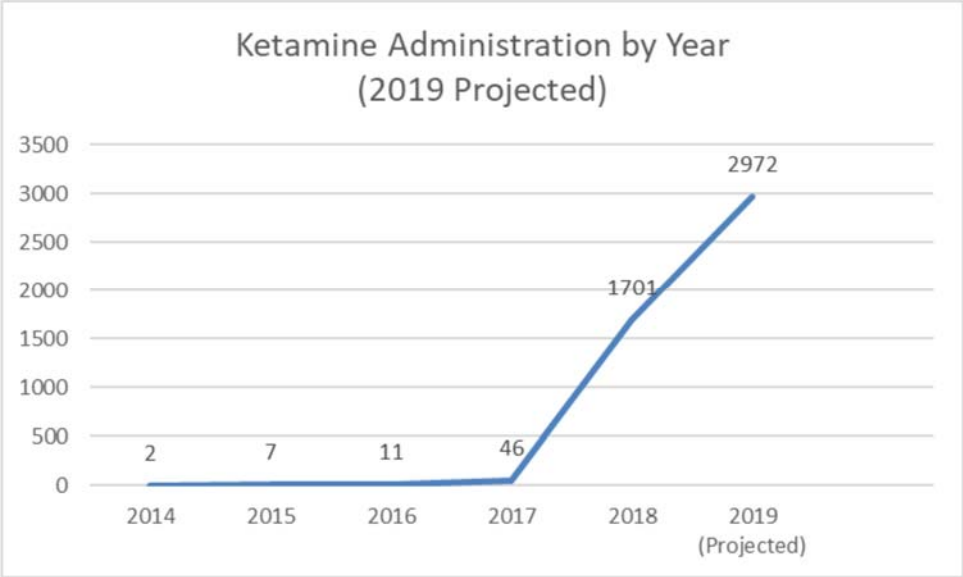
KETAMINE (Ketalar®, etc) is a medication discovered in 1962, human tested in 1964, and used extensively for surgical anesthesia during the Vietnam War due to its perceived safety. It has a low-moderate addiction liability, maintains blood pressure, and is highly efficient and effectively used for pain, sedation and medication-induced amnesia. Ketamine is an NMDA (N-Methyl-D-aspartate) receptor antagonist like dextromethorphan (DXM), phencyclidine (PCP), methoxetamine (MXE), and nitrous oxide (N2O). When used recreationally Ketamine is considered a dissociative drug. NMDA inhibition is also a component of the synthetic opioids methadone and tramadol among others.

The first recorded uses of Ketamine in Alabama EMS occurred in 2014 and was administered by an EMS rotary-wing aircraft ambulance in Selma, Alabama on July 19th while preparing to transport a generally traumatized motor vehicle accident victim to the trauma center at the University of Alabama at Birmingham Medical Center (100-mile flight). The second was administered on September 13th, on the same aircraft unit, in transportation of a 29-year-old female exhibiting altered mental status secondary to a gunshot wound of the head to Druid City Medical Center in Tuscaloosa.

Whereas Ketamine has always been available to Paramedics transporting under the guidelines of the Alabama Interhospital Transport process (medications supplied by the sending hospital) it was added to the Alabama EMS Expanded Scope of Practice formulary (8th Edition, 01/2016) and the Paramedic Drugs/ Procedures Formulary (9th Edition, 01/2018) of the Alabama State EMS Protocols. Use of the medication has increased in Alabama EMS significantly as it has become available to EMS Providers. The OEMS Data Management and Analysis Section recently completed a study of Ketamine use requested by Dr. John McMahon of Mobile. This data extraction shows 2,510 observations of Ketamine administration occurring by the time of the study.

Continued on page 7

The chart below shows the number of Ketamine administrations per year beginning in 2014 and through 2018 and projected to the end of 2019.



Ketamine dosing by Alabama protocols involves the administration of 0.2-0.5 mg/kg to a maximum of 25-50 mg total for pain. Further, it can be used at much higher doses for excited delirium sometimes seen in toxicological exposures such as "spice." Doses for altered mental status range from 1.0 – 4.0 mg/kg with administration IV at the low end and IM at the high end. Whereas weight varies within EMS patients (and weight documentation of EMS patients is subjective and problematic) the high dose range for the typical patient probably averages 75 mg IV and 300 mg IM.

Ketamine is useful in emergency treatment for pain because the side effects are limited, as is its addiction potential (Schedule III drug). It does not tend to adversely affect blood pressure in trauma and can, in fact, help to support it. Its effects can also make patient's recall of traumatic events less severe (which is why it can be used during invasive procedures and surgeries for its amnesiac properties). Its properties also make it desirable as a recreational drug.

Continued on page 8

Continued from page 7

The internet is awash with references to recreational Ketamine. Reportedly it has been combined with Ecstasy and ephedrine, as well as other substances, and used for its hallucinogenic effects. Recreational names for Ketamine include “Special K”, “K”, Kitty”, “Kallie Ziltz”, “Ket”, “K2”, “Vitamin K”, “Super K”, “Honey oil”, “Jet”, “Super acid”, “Kit-Kat”, “Mauve”, “Special LA coke”, “Purple”, “Cat Valium”, “Knod-off”, “Skittles”, “Blind Squid”, “Keller”, “Kelly’s Day”, “New ecstasy”, “Psychedelic heroin”, “bump”, and “Majestic”. A mixture of Ketamine with cocaine is called “Calvin Klein” or “CK1.” In Hong Kong, where illicit use of the drug is popular, Ketamine is colloquially referred to as “kai-jai”.

Ketamine has been found to rescue depressive behavior in both animals and humans, although the mechanism for depression and how Ketamine affects the neuro-components responsible for depression are both poorly understood. It has also been reported by physicians in Russia to be useful in the treatment of alcoholism. Studies continue and the FDA has not yet cleared Ketamine to treat depressive behavior.

Alabama Prehospital EMS Providers would be advised to remember that each patient should be treated subjectively and individually. We sometimes develop blanket approaches for our patient care. Examples of these are “All of my patients are placed on pulse oximetry” (Very acceptable). We must always listen to ourselves, however, when we make statements that include “All of my patients…”. Ketamine is commonly used for sedation and analgesia in Emergency Departments because incidents of adverse side effects are rare. Research published in the BMJ Open (British Medical Journal, Vol 6, Issue 6) by Bellolio, Puls, et al, suggests that Ketamine used to sedate pediatric patients rarely causes problems but with the 1.5% of sedated pediatric patients who experience hypoxia secondary to respiratory depression and who also experience laryngospasm – the laryngospasm most frequently occurs with Ketamine. The incidence of laryngospasm was estimated to be approximately 2.9 per 1000 sedations with 97.1% of those cases involving Ketamine. Another complication of Ketamine, or any drug for that matter, is allergic reaction. To our knowledge no incidence rate of Ketamine-induced allergic reaction has been established. Case reports have been published and are discoverable, but the consensus exists that anaphylaxis has only been reported with Ketamine in combination with other medication. Reports indicate that diphenhydramine was very successful in treating reactions to Ketamine.

Continued from page 9

Our major learning point is this - For every procedure conducted in the prehospital environment; a risk and a benefit occur as a result. The risk may be very low and the benefit great, but risk is always a component of EMS intervention. The art of practicing prehospital EMS is recognition of the risk, preparation of the possibility of untoward affect and recognition and intervention of the event should it occur. The most expert prehospital EMS providers are always expecting the unexpected and prepared to deal with it.

Gary L. Varner, MPH, NRP

Senior Epidemiologist

Acute Health Systems

Trauma System

In September of 2018, a team from the American College of Surgeons Committee on Trauma conducted a Trauma System Consultation for the Alabama Trauma System (ATS). The team conducted a week-long, extensive evaluation of the ATS which included: documentation review, stakeholder meetings, and on-site data requests and analysis. The team acknowledged that strengths within the ATS included local EMS engagement, the Alabama Trauma Communications Center's capability to monitor resources and coordinate patient flow, and our EMS partners.
The consultation provided an excellent opportunity for those involved to learn more about the complexities and challenges of the system. The team, as expected, identified areas for improvement. A report with prioritized recommendations was provided and it is still being reviewed. More information will be provided about the consultation recommendations as we move forward in the process.

Stroke System

EMSP should never underestimate the importance of their role in stroke care! Rapid identification of a potential stroke patient is critical because of the limited window of opportunity for treatment with tissue plasminogen activator (tPA -Alteplase) for acute ischemic stroke and/or mechanical thrombectomy for large vessel occlusions (LVO). Quick entry of the patient into the stroke system, completion of the Thrombolytic Check List and timely transfer to an available stroke center are ways EMSP can help suspected stroke patients because these activities help reduce door-to-needle and door-to-CT times. The OEMS is excited to be working with neurologists from across the state to take the Alabama Stroke System to the next level which includes trained EMSP assessing for large vessel occlusions (LVOs) using a specific stroke severity-based screening tool. The neurologists are working closely with OEMS to develop the processes and training for the statewide roll out of the pilot program and to identify the criteria for the thrombectomy capable centers.

Electronic Patient Care Reports (ePCRs)

With the change to electronic reporting, in most cases, EMS no longer leaves a patient care report of any kind at the hospital. The absence of this documentation making it into the hospital medical record is problematic. To help address the issue, trauma managers, stroke coordinators and trauma registry staff from across the state are working with OEMS and the Center for Advanced Public Safety (CAPS) on a pilot project for hospitals to retrieve ePCRs after EMS submits the record to the State. Once the system is operational, each hospital will have access to a secure web page to retrieve ePCRs for all patients brought to their facility via EMS, even those outside of the trauma and stroke system. The pilot project is planned for this fall with an estimated rollout of the system during the early part of 2020.

Alice Floyd, BNS, RN
Acute Health Systems Manager

EMSC Update

Don’t forget about the EMSC Day Event at Children’s of Alabama being held May 22, 2019. 6 hours of CEU credits will be offered for your attendance. We will wrap up with the day with our inaugural EMSC Awards Ceremony. Please see the details on the following page.

Katherine Dixon Hert, BSBA
EMSC Program Manager

Wednesday, May 22nd, 2019 - Alabama EMSC in conjunction with UAB Department of Pediatric Emergency Medicine and Children's of Alabama Emergency Department will be hosting an EMSC Day event. The event is free and open to anyone who wants to attend. The event will be held in the Surgical Commons conference room - 3rd Floor, Lowder Building - at Children's of Alabama. Attendees will receive 6 CEUs. The event starts at 9:00AM.

*SCHEDULE:	
9:00 - 10:00	Welcome and Pediatric Assessment
10:00 - 11:00	Respiratory Emergencies
11:00 - 12:00	Care of Trach and Vent Dependent Children
12:00 - 1:00	Lunch
1:00 - 2:00	Pediatric Medication Errors in the Field
2:00 - 3:00	Child Abuse Recognition
3:00 - 4:00	Pediatric Trauma Management
4:00 - 5:00	Inaugural EMCS Awards Banquet

ALABAMA Emergency Medical Services

Children's of Alabama

EMSC Emergency Medical Services for Children ALABAMA

UAB MEDICINE PEDIATRICS

*Times subject to change

Alabama e-PCR Submission Requirements

Some e-PCR Points of Clarification:

1. It is a requirement to complete a patient care report on every response. This office is already monitoring submission rates and comparative data suggests that many agencies are not reporting all runs as required. Please submit all required runs to avoid noncompliance.

2. Each record must be submitted electronically within 72 hours or less. The goal is to eventually narrow that down to within 24 hours. The 24 hour reporting allows Public Health to monitor surveillance trends as required by the Federal emergency preparedness guidelines.

3. Our IT staff is always available to assist you with your e-PCR needs. If you need assistance, you may call Chris or Lori at 334-206- 5383. You may get a voice recording depending on the call volume. They will eventually get back to you. If you do not hear from them within a reasonable time, you may wish to email them.

4. Collecting and importing data is paramount only to reporting reliable data. Reliable data is accurate and contains no errors. When one looks for shortcuts and/or skips data entry in areas that has been discovered to have no validation rules, it dilutes the integrity of the data, not to mention falsifies a legal document. Please make sure you enter data accurately.

5. Alabama became a NEMSIS version 3.4 compliant state beginning January 1, 2018.

General Information

Do You Have Questions for OEMS Staff?

This is another reminder to those of you calling our office (334) 206-5383:

Complaints, Investigations, and Inspections —Call Jamie Gray
Licensure —Call Stephanie Smith, Kembley Thomas, or Vickie Turner
Individual Training or Testing—Call Chris Hutto
EMS for Children, Website, and Social Media—Call Katherine Dixon Hert
EMS Data/NEMSIS – Call Gary Varner

Requests for Information from Regional Offices

The Office of EMS would like to request that you comply with any request for information from your regional office. Some Directors are still having issues receiving information and data as requested by the State office. We would greatly appreciate your cooperation and compliance.

Reporting Requirements

Please be reminded that, according to Rule 420-2-1-.07 (6h), All licensed provider services shall provide notification and written documentation within three working days to the OEMS regarding any protocol or rule violation, which includes but not limited to, according to 420-2-1-.30 (8), anyone guilty of misconduct or has committed a serious and material violation of these rules; has been convicted of a crime.

Also be reminded that, according to Rule 420-2-1-.29 (7), All licensed provider services shall provide notification and written documentation about any individual who meets the definition of an impaired EMSP.