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QUALITY IMPROVEMENT NEWSLETTER

A publication from the Maine EMS Quality Improvement Committee

MANAGING BEHAVIORAL HEALTH EMERGENCIES

OVERVIEW

Some of the most complex patient interactions for EMS clinicians are those with persons experiencing a behavioral health emergency. These situations can precipitate from a variety of factors, including, but not limited to, pre-existing mental health conditions, poly-substance use, triggering and traumatic events. In the State of Maine last year, there were 86 patient interactions where the treating EMS clinician documented application of physical, including commercially available soft restraints, or sedation. These interactions can evolve rapidly and can create dangerous situations for both the patient and the clinician if not managed appropriately. The Maine EMS Protocols include specific treatment algorithms for depression, suicidal ideation, restraints, agitation, and excited delirium (Orange Section); however, it is important to note that these protocols generally only represent extremes of behavioral health emergencies. Everyday there are patients who interact with the system that have a history of behavioral health conditions that are well managed. It is important to note that clinicians' affect, or the way they interact with the patient, is important in all patient encounters.

TAKE AWAYS:

- Accurate and complete documentation is important to thoroughly describe the scene, patient, and their condition. This includes AMSS, blood glucose levels, multiple assessments of vital signs, etc.
- Your affect and communication style may improve patient interactions. Be conscious of how you speak (tone, style, cadence, etc.) in addition to the words you use. Also, your non-verbal communications such as body stance, facial expressions, etc. may escalate or calm the situation.
- Requesting ALS early for restrained patients for patient and clinician safety is important.

Quality Improvement Leaders should think about:

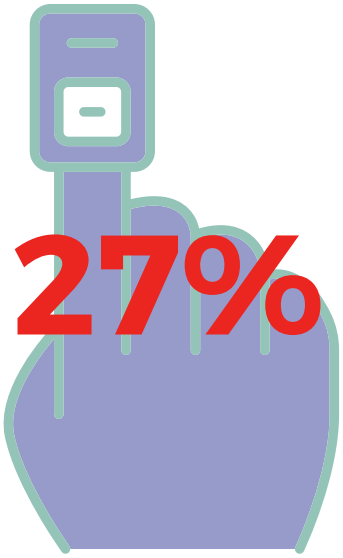
- Make sure your agency has a QI process for behavioral health emergencies.
- Multi-disciplinary response scenarios should be evaluated with partner agencies, including police and dispatch, to identify best practices and attempt to replicate them through policy and education.

Involving ALS following a BLS Response

In 2020, there were 86 calls that documented sedation or physical restraints (including the application of commercially available soft restraints) as part of the patient care report. Of those records, 15 were documented as basic life support crews. Only one of those crews, or 7%, indicated that they requested ALS in the narrative but not in the procedure area. Many of the crews applied restraints but did not request ALS as required per the protocol (Orange 2).[1] It is important for BLS crews that determine restraints are required for the safe transport of patients to activate ALS resources as quickly as possible. While those patients may be experiencing a psychological emergency, it may be potentiated by an underlying medical condition that warrants care and treatment by the responding ALS crew.

Weight-Based Dosing of Ketamine

When caring for patients with an altered mental status scale assessment score of +4, paramedic level crews may have to consider administering ketamine at 4 mg/kg intra-muscular (IM) for the safety of all involved. The pearls in the Maine EMS Protocols remind us that ketamine is similar to PCP, or phencyclidine, in its chemical makeup, but shorter acting and less toxic.[2] For this reason and with all medication calculations it is imperative to get the dosing correct. Twenty-seven patient care reports documented administering ketamine for excited delirium. Of those, only eight, or 29%, were within 10 mg of the calculated dose based on the weight documented by the EMS clinician.

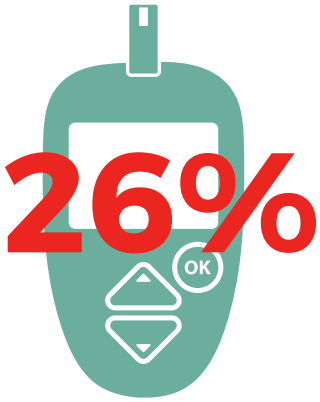


Documentation of Patient Monitoring

The Maine EMS Protocols (Orange 2) require that restrained patients have direct observation by EMS personnel and requires continuous cardiac, pulse oximetry, and waveform capnography monitoring, if able to do so.[1] Of the 86 calls where patient restraints were documented, 63 documented providing an ALS level of care. Fifty-two (52) reports, or 82% of all of the calls, documented an oxygen saturation level. Twelve (12) reports, or 19%, documented waveform capnography. Seventeen (17) reports, or 27%, documented a cardiac rhythm. Excited Delirium may present with a myriad of symptoms. It is important to monitor continuous waveform end-tidal carbon dioxide, pulse oximetry, and the cardiac monitor as they may assist with identifying significant changes in the patient's condition, especially in a complex situation like those experienced with excited delirium.

1. Maine EMS. Prehospital Treatment Protocols: Restraints (Orange 2). (Dec. 1, 2019). Accessed on March 13, 2021 from https://www.maine.gov/ems/sites/maine.gov.ems/files/inline-files/2019%20Protocols%2009%2019.pdf
2. Maine EMS. Prehospital Treatment Protocols: Agitation/Excited Delirium 3 (Orange 5). (Dec. 1, 2019). Accessed on March 13, 2021 from https://www.maine.gov/ems/sites/maine.gov.ems/files/inline-files/2019%20Protocols%2009%2019.pdf

Blood Glucose Analysis



Hypoglycemia can present with adrenergic (tachycardia & diaphoresis) symptoms under 60 mg/dL and central nervous system symptoms under 50 mg/dL.[3] Hypoglycemia, untreated, may result in behavior that is consistent with an altered mental status, agitation, and/or delirium. It is important for EMS clinicians to be able to recognize this treatable condition as part of their working field impression. To do so, it is important for EMS clinicians to assess blood glucose levels of patients experiencing mental health emergencies. Of the 249 EMS electronic patient care reports (ePCR) with a documented primary impression of "Behavioral – Excited Delirium," only 65, or 26%, have a blood glucose measurement vital signs recorded in the ePCR.

SAD PERSONS Scale & Columbia Suicide Screening Tool

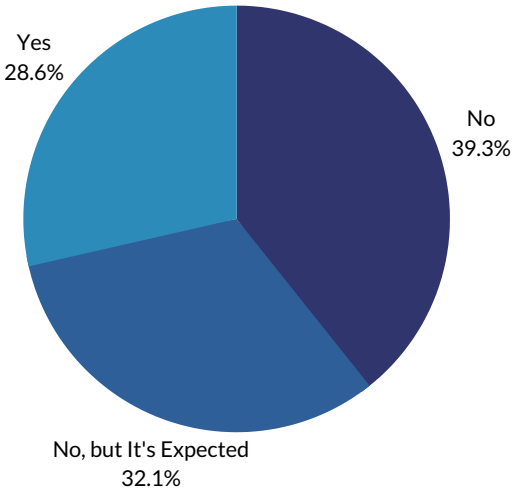
In 2019, the Maine Medical Direction and Practices Board released the protocols that include the addition of the SAD PERSONS Scale and Columbia Suicide Screening Scale. These tools are intended to quantify suicide risk via a scale with fixed measures. It is important for EMS clinicians to document both the SAD PERSONS Scale and the Columbia Suicide Screening values. To assist EMS clinicians with documenting these values, Maine EMS has released a worksheet that is triggered when you document a suicide attempt as a primary impression. A new worksheet will then become available and require completion to calculate the score. A short training video is now available on the Maine EMS YouTube Channel. View our channel by going to https://youtube.com/MaineEMS or by scanning the QR code with your smartphone.

THE CRITICAL ROLE OF EMERGENCY MEDICAL DISPATCHERS (EMD)

The Call For Help

In 2020, Maine's 29 licensed Emergency Medical Dispatch Centers processed 2,523 emergency calls using the medical priority dispatch chief complaint Protocol 25,[4] which addresses psychiatric, abnormal behavior, and suicide attempt situations, as described by the caller. Axiom 1, or a pearl for dispatchers handling these situations, reminds us that "*behavioral emergency patients (at any level of consciousness) are considered to be a potential risk to themselves and others*," prioritizing scene safety and responder safety concerns in these situations. Like many other types of emergency calls, these situations often require a multi-disciplinary response from both law enforcement, emergency medical services, and others to ensure the safety of all involved.

3. Maine EMS. Prehospital Treatment Protocols: Diabetic/Hypoglycemic Emergencies No. 2 (Gold 7). (Dec. 1, 2019). Accessed on March 13, 2021 from https://www.maine.gov/ems/sites/maine.gov.ems/files/inline-files/2019%20Protocols%2009%2019.pdf
4. MPDS QA Guide v13.0; Protocol 25: Psychiatric/Abnormal Behavior/Suicide Attempt. Priority Dispatch Corp., Salt Lake City, UT, 2015.

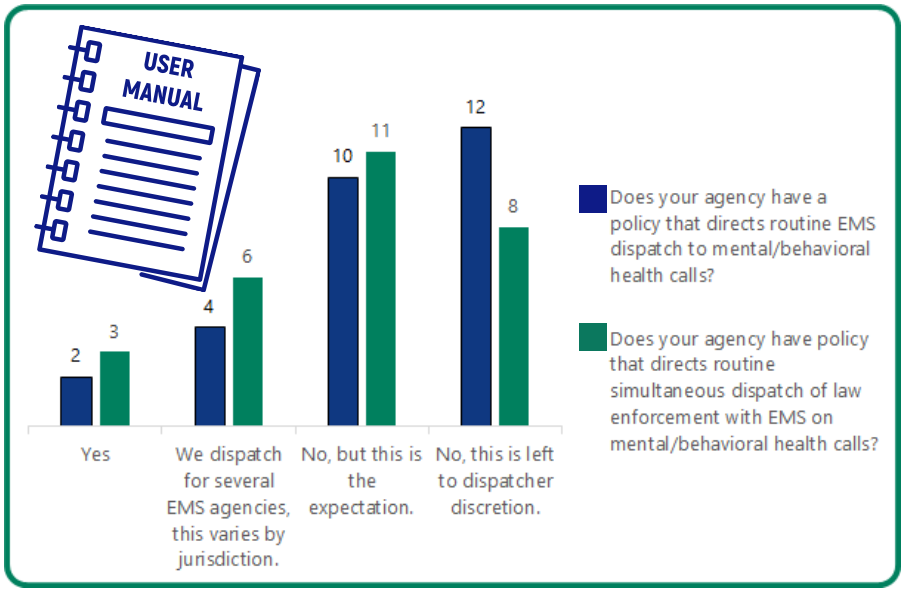


Does your Dispatch Agency Have A Policy Directing Call Takers To Process Mental/Behavioral Health Calls Using The EMD Protocol?

Primary discipline selection for these multi-disciplinary response situations should be addressed in local policy to guide the dispatcher in processing these calls for service. 28.6% or eight (8) of the 28 EMD Centers that process both medical and law calls (One (1) EMD Center only receives and processes filtered medical calls) responded to a survey that they have policy in place guiding EMDs to process mental and behavioral health calls using the medical priority dispatch system (MPDS). 32.1%, or nine (9) other EMD Centers responded that they do not have a policy, but it is the expectation that EMDs will process mental and behavioral health calls using the MPDS.

Does your Dispatch Agency Have A Policy That Directs Routine EMS Dispatch to Mental/Behavioral Health Calls?

Axioms 2-4 remind the EMD that many of the underlying complaints associated with mental and behavioral health calls are true medical emergencies and will require patient care and medical interventions, "These problems include insulin shock, severe blood loss, lack of oxygen, delirium tremens (the DTs), overdose, liver or kidney failure, etc." 7.1% (2/28) of EMD centers report having a policy for routine dispatch of emergency medical services to these calls for service, while 10.7% (3/28) report having a policy for routine dispatch of law enforcement with EMS. There is no doubt that these calls may be volatile and unpredictable warranting a police presence, but the public safety system can do better recognizing the medical nature of the complaint and ensuring that appropriate interventions are made available.



Safety, Planning, And Policies

Axiom 5 reminds us that local policy for dispatch response resources should be made between the law enforcement and EMS-provider agencies. As we saw with Axiom 1, and as evidenced by the sequence of key questions, scene safety and responder safety is the first priority within the MPDS, which can be trusted to adequately guide the dispatch of necessary resources in a multi-disciplinary response. Again, in the absence of a police protocol in Maine, it may be considered best practice to process mental and behavioral health calls for service using the MPDS with resource dispatching based on determinant codes established by local policy.

THOUGHTS ON IMPROVING DOCUMENTATION

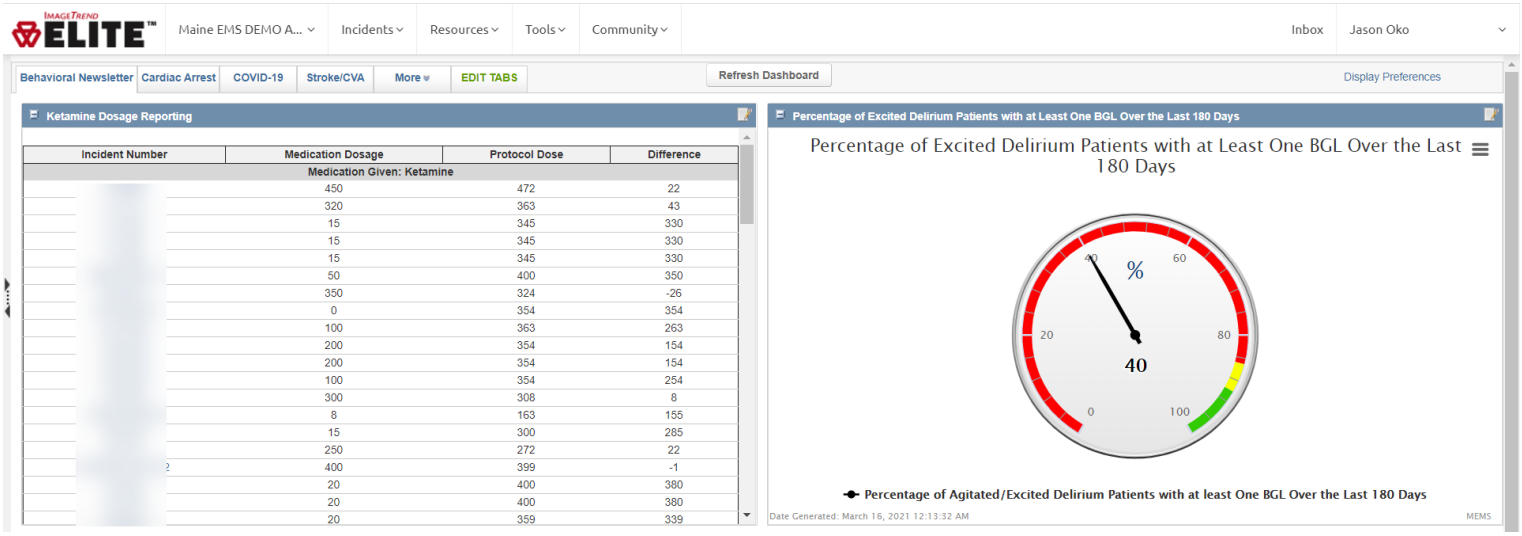
- Consider reviewing weight-based dosing calculations with your EMS clinicians.
- During the COVID-19 pandemic, it is important for EMS clinicians and others involved with the agitated/excited delirium patients to remain protected. Always use and wear appropriate PPE when treating and caring for all patients.
- Early notification to the receiving facility when transporting a patient that has been sedated or physically restrained to an emergency department.
- Debriefing agitated/excited delirium events with all persons involved to identify lessons learned and opportunities for improvement.
- Support CQI efforts to improve consistency and effectiveness of documentation of all behavioral health emergencies.
- Consider training opportunities regarding effective communication techniques with suicidal ideation patients and their family members.

HOW TO SEE YOUR OWN DATA ON OUR NEW BEHAVIORAL HEALTH DASHBOARD

The Behavioral Newsletter Dashboard provides a look at your agency's data in two different reports.

- Report 1 shows when the dose of ketamine administered, and what the dose should be based on the documented patient weight for patients experiencing excited delirium over the last 180 days.
- Report 2 shows the percentage of excited delirium patients receiving ketamine, that also have a documented blood glucose analysis over the last 180 days.

This report is available in Report Writer, by going to *Tools*, *Report Writer*, and selecting, *Load Dashboard*



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