

Tri-County EMS – Regional Summary Report for the Board of EMS for FY 2023
Jan 1, 2023 to June 30, 2023

Contract # CT-16A-20210628*3823
VC 1000092933

Quality Assurance/Improvement Program

Regionwide Assessment in a collaborative fashion

Work on the FY2023 EMS Service Level Quality Assurance and Quality Improvement Assessment began. As with the FY2022 survey, this follow up survey was designed in a collaborative manner with all three of the regional EMS Coordinators. The design work started in December 2022 and ended in March 2023. The draft was sent to Director Hurley for review. Once the approval is received, the survey will be sent out as planned. The spring of 2023 was an extremely busy time for the director of Maine EMS. Once the legislative session ends, we will follow up with the distribution of the survey.

The three EMS Regional Coordinators worked collaboratively to develop an on-line Quality Improvement and Quality Assurance educational project that will be loaded onto MEMSED. It The name of the program is “Raising the Bar – Quality in EMS”. It was reviewed by Maine EMS and the final edits and on-line exam have been completed and will be sent to Maine EMS in the 1st quarter of FY2024. The purpose of the program is to provide uniform education on the fundamentals and principles of QA/QI in the context of EMS.

Unique Quality Assurance and Quality Improvement Indicators and QA/QI support to regional EMS services

Reviewing all calls with an airway component (other than just the administration of oxygen) and all cardiac arrests are our two regional primary indicators again this year. All EMS services in our region are expected to review both their airway and cardiac arrests calls and we also do 100% review of these calls each month and provide services with feedback and assistance. Patients who need their airways managed and require resuscitation are among the most complex and vulnerable of the patients all EMS systems care for. We feel the review of these cases and the subsequent identification of areas for improvement or validation of proper contemporary care helps improve all patient care, as managing airways and resuscitation cuts across all patient populations and case types. These also represent the patients in whom early and proper care can truly make the difference between life and death.

During this reporting period we conducted six (6) regional airway meetings via Zoom. (January 11, 2023, February 8, 2023, March 8, 2023, April 12, 2023, May 10, 2023, June 14, 2023) All EMS services, service medical directors and hospital emergency department leadership

received an invitation to attend these two-hour meetings. Monthly average attendance continues with 18 people representing approximately 15 services attending each meeting. During this reporting period we have started to send out the case numbers in advance so the service level QI Coordinator can extend an invite to the crew who was on the case. This has been well received and we have seen an improvement in understanding of QI and an increased interest in participating in these reviews from those on the calls.

This has added context and insight into these complex and challenging calls. These are collegial and interactive meetings with open dialogue and knowledge sharing. We also have a service level medical director routinely attend and the physician director of two of our emergency departments attended each review over the past 6 months. This has prompted wonderful dialogue and increased understanding of challenges faced both in the field and in the ED. A contemporary, scholarly article on airway or cardiac arrest was presented at each meeting to foster further education and discussion. The following articles were shared.

- *Prehospital Airway Management Training and Education: An NAEMSP Position Statement and Resource Document*
- *Chest Pain Management Using Prehospital Point-of-Care Troponin and Paramedic Risk Assessment*
- *Airway Management During Cardiopulmonary Resuscitation, Basma A. Mohamed*
- *Prehospital tranexamic acid for trauma victims*
- *Pulse Oximetry: A Necessary Imperfect Tool in Critical Care*
- *NYS OASAS Medical Advisory Panel (MAP) Xylazine Guidance*
- *'If the Narcan Isn't Working, Give More' and Other Myths About Naloxone Use — In non-responsive patients, think polysubstance use, says addiction treatment expert Kelly Ramsey*

Dr. Seth Ritter, Regional Medical Director and Paul Marcolini, Paramedic, regional quality coordinator facilitated these meetings and Joanne Lebrun, Regional Coordinator kept the notes, attendance and organized the meeting and follow up.

In summary, our regional quality coordinator reviewed a total of 214 EMS calls that required the management of an airway or resuscitation of a cardiac arrest. Eighty-nine of these calls were reviewed by the Regional Airway Review team at the monthly meetings. This resulted in twenty-two (22) services having their cases reviewed and discussed by the airway review team during this reporting period. This included all 14 transporting services. These reviews and discussion resulted in shared knowledge, clarification of protocol and strategies for education and feedback for EMS providers. In addition, this is a forum for service level quality coordinators and medical directors to receive support, insight and strategies to help with their service level reviews.

Of the 214 calls reviewed; 48 were overdose/toxicology calls; 92 were cardiac arrests with 29 (31%) ROSC. The remaining calls were a combination of medical and trauma calls requiring airway management.

We continue to see an improvement in the development and completeness of the narrative for both transporting and non-transporting services. Services are also improving in providing written QI feedback on calls to their EMS clinicians.

Opportunities for improvement were identified through our quality processes and they include:

- Airway:
 - Decision making of the selection of Advanced airway is still an outlier. Reinforcing the need for a definitive ALS airway is common feedback. Services are beginning to adopt i-gel use and the use of Video laryngoscopy has become widespread. When an airway video is available, we show these at our airway meeting to share knowledge and technique. We have found this to be very well received.
 - SALAD technique – We are pleased to note see the use of this technique spreading. As clinicians gain experience and have positive results the word is spreading. We continue to receive positive feedback from the clinicians on the use of this technique.
 - Most services are now using mechanical chest compression device and using them properly. High performance CPR is also being documented.
- Documentation:
 - Medical death as primary impression is not the equivalent of cardiac arrest. Although we have made progress, we are still providing feedback on this. It comes up at least on one cardiac arrest each month.
 - Documenting the results of medications given and rhythm changes in the narrative is improving.
 - Documenting why an ET or King failed has improved, but still are not at 100%. We continue to monitor and provide feedback and education.
 - Obtaining a 12 lead after ROSC and taking the time to stabilize the patient with medications, fluids, etc. before rushing to the ambulance and transporting continues to improve. Documenting the response to any treatment or medication is also improving, but not yet at 100%.
- Medications:
 - Narcan – titrating Narcan to effect and waiting for it to work is still an area for improvement. We have also begun to see cases of overdose that are not responsive to Narcan and the need to provide excellent airway management.
 - Bicarb – this medication is still frequently used when it is not indicated. We continue to provide education about when to use.

- Chest Decompression – there have been several trauma situations when this intervention was used, but no indication for it. We continue to educate clinicians on the need for NO lungs sounds and that there must be tension.
- Education:
 - Dr. Ritter provided additional education at the regional quality coordinator's meeting on the use of BiCarb, the indication for chest decompression, and post ROSC care.

Annual Quality Coordinator Meeting – June 8, 2023

Our Annual Quality Coordinator meeting was held via Zoom. The program included reports from services on their service specific quality measures, a presentation from our regional medical director, Dr Ritter on common QI issues including the use of bicarb in Cardiac Arrest, titrating Narcan and waiting for effect, and a thorough review of the indications for chest decompression. Dr. Sheldon Stevenson, director of Emergency Medicine at CMMC presented on an updated Code STEMI procedure at CMMC. This updated procedure will continue to support the contemporary and rapid care of the prehospital arrival of the patient with a STEMI. Jason Oko, Maine EMS presented on how to use some of the existing CQI tools that are part of MEFIRS. Fifteen services attended this meeting.

Continuing Education:

During the reporting period we reviewed and approved seventy-three (73) CEH requests that were submitted to our office both on-line and on paper. We approved, as well as entered rosters promptly so EMS providers would not encounter a delay in licensing. In addition to protocol update education, services provided CEH opportunities on a wide range of subject including managing a crisis airway, assessment, i-Gel, mechanical CPR devices, Stroke, burns, and skills review sessions.

We organized and presented monthly CEH sessions that were held on-line and open to all. These were well attended. Topics include presentations on BRUE; Emergency delivery in the Field; Burns; and a Presentation on Refusals – provided by Dr. Ritter. This presentation had a record attendance of 76.

Attendance at Meetings:

The EMS Regional Coordinator attended the following meetings as required by the contract. All meetings (with one exception) during this reporting period were conducted on-line via Zoom due to COVID-19.

In addition, the Regional EMS Medical Director (Seth Ritter, MD) and Quality Coordinator (Paul

Marcolini, Paramedic) also attended the MDPB meetings and several of the Board of EMS meetings.

January 4, 2023 – Board of EMS

January 18, 2023 – Medical Direction and Practices Board

February 1, 2023 - Board of EMS

February 15, 2023 – Medical Direction and Practices Board

March 1, 2023 – Board of EMS

March 15, 2023 – Medical Direction and Practices Board (*The Regional Coordinator was absent, as she was on vacation. The Regional Medical director was in attendance*)

April 5, 2023 – Board of EMS – in person at MEMS office in Augusta

April 19, 2023 – Medical Direction and Practices Board

May 3, 2023 - Board of EMS

May 17, 2023 – Medical Direction and Practices Board

June 7, 2023 – Board of EMS (in-person and via Zoom)

June 21, 2023 – Medical Direction and Practices Board

In addition, the EMS Regional Coordinator attended all Operations Teams meetings held during this reporting period, all Education Committee meetings and Quality Improvement Committee meetings.

Communications and Regional Meetings:

Regional Quality Council meetings were held on February 2, 2023; April 6, 2023; and June 8, 2023. Each meeting included reports on Maine EMS activities, regional activities, and information sharing among service and hospitals. The topics of significance included Substance Use Disorder, medication shortages, progress on protocol development, awards, rules changes, service level medical direction, the Blue Ribbon Commission, the Strategic Plan, the Leave Behind Narcan project, Community Paramedic Project, and the need for updates to PIFT. The Emergency Departments at SMH, RH, CMMC and SMRMC were represented by their nurse managers. CMMC and SMRMC both have an EMS liaison and they have been able to attend our meetings.

Email and Facebook were also used to update providers on MEMS activities and distribute notices of meetings, update and notify providers of educational opportunities, new trends and ideas in EMS.

Email and telephone calls were made to and received from EMS services chiefs and QI coordinators on EMS issues including safety manuals, COVID, service medical direction, CEHs, available training programs, service licensing issues, QA/QI issues, protocols, mutual aid, Naloxone leave Behind project, reentry with licensing questions, rules questions, etc.

We kept EMS providers apprised on the strategic planning process underway by Maine EMS, and the legislative Blue Ribbon Commission, and encouraged participation. We also kept our services apprised of the EMS Funding Relief bill that was generated as a result of the Blue Ribbon Commission findings. We notified our services about staff and programs changes at Maine EMS, encouraged participation in the Leave Behind Narcan program and notified services and providers of openings on Maine EMS Committees.

We are working on replacing our medication boxes with Pelican boxes and have designed a new layout with the participation of our services.

Supporting our services:

- Organized the regional awards ceremony that was held on June 28, 2023
- Conducted reviews of airway and cardiac arrest calls for monthly meeting.
- Provided follow up on patient disposition.
- Assisted services with issues related to quality assurance and follow up on monthly airway review meeting – Cardiac arrest and airway management calls.
- Assisted services with reviewing and providing feedback on EMS calls as requested by service leadership.
- Assisted services with notification on changes in OB coverage at Rumford Hospital (RH), and at SMRMC.
- Provided assistance and communications to EMS services and hospitals on issues relating to diversion, delays, QI issues and transfers.
- Work continued with regional hospital pharmacies and EMS services with planning for modernizing the EMS medication boxes.
- Assisted the regional hospital pharmacies with medication recalls and exchanges, and resolving discrepancies on EMS medication sheets.
- Conducted monthly meetings of our CISM team and arranged for multiple defusing and debriefings for EMS services and hospital ED staff as requested. The need for the CISM support services was again high in this reporting period. During the past six months, EMS clinicians continued to experience significant stress and fatigue working with inadequate staffing. EMS clinicians are fatigued and stressed with the increase in transfers, and the number of very traumatic deaths, especially those of children and pregnant women.
- Attended monthly Stroke and Trauma meetings held at our EMS Resource Hospital to represent our EMS system and provide a means of communications for system improvement. Followed up on Stroke activation and provided follow up/outcome to services.

- Assisted EMS services and other organizations with acquiring AEDs and supplies for their coverage areas. Assisted EMS with obtaining AEDs and/or AED supplies for their coverage areas.
- Encouraged services to start registering AEDs in their areas with PulsePoint, in preparation for this system in Maine.

Reports:

Submitted our July 1, 2022 to December 31, 2022 report in January 2023.

Submitted required financial report for FY2022 in December 2022