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Memo

Advisory from the Center for Emergency Medical Services (CEMS), Division of Preparedness, Response, Infectious Disease and EMS

#2019.03

To: EMS Service Chiefs, EMS Coordinators, EMS Medical Directors, EMS Training Officers

From: Nicole Alexander-Scott, MD, MPH; Director of Health
Jason M. Rhodes, Chief; Center for Emergency Medical Services (CEMS)

Date: April 30, 2019

Subject: Updated recommendations for orotracheal intubation

This advisory is being issued by after a recent cardiac arrest case transported by a Rhode Island-licensed ambulance service to a hospital emergency department with an unrecognized intubation tube that was in the esophagus and not the trachea, resulting in death. We are aware that 11 such events have occurred in the last 3 years. In addition, the mandated waveform capnography monitoring was not performed and nor was a tracing recorded in the electronic patient care report. This is an unacceptable high rate of esophageal intubation. To best protect patient safety, we strongly recommend the following procedures be adopted by all EMS practitioners.

- **BIADs are airway of choice in all cardiac arrest patients**
  Supraglottic blind insertion airway devices (BIADs), e.g. i-Gel®, King® laryngotracheal tube, and laryngeal mask airway will be the advanced airway products of choice in all cardiac arrest victims for all EMS practitioners. Orotracheal intubation will only be indicated for use in patients where BIADs are insufficient to facilitate adequate ventilation. Studies indicate that orotracheal intubation offers no appreciable improvement in patient outcome when a BIAD is providing

adequate ventilation. Also, the interruption in delivery of compressions while an orotracheal intubation attempt is made may be harmful. Continuous waveform capnography that confirms advanced airway placement is mandatory and must be monitored.

- **Documentation of airway procedures required in ePCR**
  All advanced airway management, including BIAD insertion, intubation, and intubation attempts made by EMS practitioners must be documented thoroughly in both the narrative and drop-down procedure section of the electronic patient care report (ePCR). Additionally, evidence of continuous waveform capnography that confirms advanced airway placement must be documented in the ePCR. The waveforms must be uploaded into the ePCR. This is a standard of practice that applies to advanced airways inserted by all EMS practitioners and for transfer of interfacility patients with advanced airways already in place. EMTs must use frequently documented colorimetric CO_2 detection, and all other EMS practitioners must use continuous waveform capnography and upload it to the ePCR. The name of the physician who accepts a patient with an advanced airway must be documented in the ePCR narrative section. According to the *Rhode Island Statewide EMS Protocols*, an intubation attempt is defined as the introduction of a laryngoscope blade, endotracheal tube, or BIAD beyond the patient's lips or the insertion of an endotracheal tube into the patient's nasal passage. Every effort should be made to minimize interruptions in chest compressions during airway management and to maintain adequate oxygenation during intubation.

- **Review of airway management by Medical Director and EMS Coordinator required**
  All advanced airway management, including BIAD insertion, intubation, and intubation attempts made by EMS practitioners must be reviewed by the service's Medical Director and EMS Coordinator. The Center for Emergency Medical Services (CEMS) is creating a continuous quality improvement (CQI) module in ImageTrend to help facilitate this process and provide CEMS with a mechanism for assuring these reviews are taking place. An instructional document and rollout will be developed, for use by EMS Medical Directors and EMS Coordinators, to help facilitate these reviews.

Resource / reference: National EMS Scope of Practice Model 2019

Contact CEMS Training Coordinator Eric D Rossmeisl by email at eric.rossmeisl@health.ri.gov or by phone at (401) 222-5658 with any questions that may arise regarding documentation or review of intubations by EMS providers.