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State Board of Emergency Medical, Fire,  
and Transportation Services  
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The Ohio Board of Emergency Medical, Fire, and Transportation Services (“EMFTS Board”) issues the following statement regarding:

### Rapid Sequence Induction (RSI) for Endotracheal Intubation

June 2017

*This statement is an attempt to provide general information about the above issue facing EMS providers. It should not be treated as legal advice or medical direction. For direct advice regarding a particular scenario, please consult with your medical director and legal counsel. Although the following statement represents the EMFTS Board’s general position on the above issue, this statement in no way precludes the EMFTS Board from taking disciplinary action in a particular case if necessary. Any potential complaints brought before the EMFTS Board will be decided on a case-by case basis.*

#### **Introduction:**

The EMFTS Board and the Ohio Department of Public Safety, Division of Emergency Medical Services, has developed a defined scope of practice for emergency medical service providers. The scope of practice for EMS providers is established in Ohio Administrative Code Chapters 4765-15, 4765-16, and 4765-17. An outline of the Ohio EMS scope of practice is available in a matrix form and is posted on the Ohio Department of Public Safety, Division of EMS website as a reference for public access. This scope of practice addresses all levels of EMS providers and has been approved by the EMFTS Board. Updates to the scope of practice are made as necessary and must be approved by the EMFTS Board.

#### **Discussion:**

Rapid Sequence Induction (RSI) for endotracheal intubation has been practiced successfully by Paramedics in the prehospital environment. However, recent evidence-based literature has questioned the safety and success rates of this practice in the prehospital environment. This paper will clarify the EMFTS Board’s position on RSI and has been guided by the maintenance of patient safety as well as the underlying medical principle of “above all else, do no harm”. It is the duty of the EMFTS Board to make sure all care is undertaken in the best interest of the citizens of the State of Ohio. Successful RSI is contingent upon stringent medical oversight by a qualified medical director combined with intensive initial and continual hands-on training regarding the indications, contraindications, complications, pharmacology, and the actual skill of performing RSI.

#### **Conclusion:**

It is the position of the EMFTS Board that RSI can be practiced safely and effectively by Paramedics in the prehospital environment, as long as the following conditions are met:

- The medical director must formulate a protocol which addresses the indications, contraindications, complications, and pharmacology of RSI. This protocol should be reviewed and updated annually by the medical director.
- The medical director must review every transport in which RSI is utilized for quality assurance purposes.
  - All EMS agencies that perform RSI shall conduct a quality assurance program as well.
- The medical director must assure that each of the Paramedics under their medical direction undergoes initial and continual hands-on training on the procedure of RSI. It is recommended that this training takes place in the operating room under the guidance of an anesthesiologist or nurse anesthetist. If

this option is unavailable to the service, then dynamic human patient simulators (HPS) are an acceptable substitute. Adynamic “intubation heads” are not acceptable for training.

- Each Paramedic that performs RSI must have a minimum of one successful, live or HPS intubation per quarter to maintain competency in RSI. If the Paramedic does not maintain this level of competency, then they shall not perform RSI.
  - Training records must be maintained. These records shall document both successful and unsuccessful intubation attempts.
- The Paramedic has had initial and continual hands-on training and is proficient at using a bag valve mask to maintain ventilation
- The Paramedic must have extensive training and experience in identifying the patient with the difficult airway
  - The EMS agency must also have protocols for the management of both the difficult airway and the failed airway
- The following are recommended indications for RSI:
  - **Age  $\geq$  16**
  - Apnea
  - Inability to maintain a patent airway
  - Protection from aspiration
  - Presence of a closed head injury requiring assisted ventilation (Glasgow Coma Scale score  $\leq$  8)
  - Inability to maintain adequate oxygenation by bag valve mask (oxygen saturation  $<$  90%)
- The following are recommended contraindications for RSI:
  - The patient is maintaining their own airway
  - The patient is pulseless and apneic
  - The patient has a Glasgow Coma Scale score  $\geq$  9
  - The patient’s anatomy is such that they present as a difficult airway
- The Paramedic has had initial and continual hands-on training on the use of a rescue airway, and the device(s) is (are) present near the patient. (\*\*Note: Cricothyrotomy is considered a rescue airway and should only be used as a last resort)
- The Paramedic has had initial and continual hands-on training on the recognition of misplaced airways.
- The service utilizes waveform capnography.
- The Paramedic has had initial and continual hands-on training in the application and interpretation of waveform capnography.
- The Paramedic shall never administer long-acting paralytic agents until the endotracheal tube placement has been confirmed using both clinical and capnographic methods in addition to mechanical methods.
- The EMS agency must maintain all medical records for all cases in which RSI is utilized, whether the procedure is successful or not.

\*\* It is an acceptable practice to forego RSI and maintain the patient’s airway using a bag valve mask until that time at which the patient is delivered to a higher level of care.

Concerns or questions regarding specific interfacility transports should be directed to the Ohio Department of Public Safety, Division of Emergency Medical Services.