



Memorandum

To: All WNY ILS and ALS EMS Agencies

From: Craig Cooley, MD, MPH, EMT-P, FACEP
WREMAC Chairman

Cc: Southwestern Regional EMS Council
Wyoming-Erie Regional EMS Council
Big Lakes Regional EMS Council
Southern Tier EMS
Office of Prehospital Care
Lake Plains Community Care Network

Re: Waveform Capnography

Date: February 12, 2009

The State Emergency Medical Advisory Committee (SEMAC) has endorsed and recognized as a standard of care that all out-of-hospital adult and pediatric patients who require intubation using an endotracheal tube (ETT) must have waveform capnography in place at the time of intubation and throughout the entire time the ETT is in place. **This advisory becomes effective state-wide on June 1, 2009.** Agencies that do not have waveform capnography equipment shall not intubate effective June 1, 2009.

The Western Regional Emergency Medical Advisory Committee (WREMAC) has adopted the SEMAC's standard of care as our regional requirement, effective June 1, 2009. In an effort to provide further guidance on how the program has been adopted locally and its impact on your agency, we have provided answers to some "*frequently asked questions*".

Please take a moment to review the FAQ document attached to this memo. Please feel free to direct any questions you may have concerning these documents to your local EMS program agency or your agency medical director (or his/her designee).

EMS Program Agencies:

Niagara, Orleans, & Genesee Counties
Erie & Wyoming Counties
Chautauqua, Cattaraugus, Allegany Counties

Lake Plains CCN: 585-345-6110
Office of Prehospital Care: 716-898-3600
Southern Tier EMS: 716-372-0614

WREMAC: P.O. Box 630, Clarence, NY 14031

“Frequently Asked Questions”

Q: When is the effective date of the waveform capnography requirement?

A: Agencies shall have continuous **waveform** capnography available for use on intubated patients effective June 1, 2009.

Q: Is there a “grace period” to become compliant with this requirement?

A: The requirement is effective June 1, 2009. Agencies that do not have waveform capnography equipment available by June 1st will not be permitted to intubate any patient until such time as they purchase the required equipment.

Q: Can an agency ask for an exemption/extension based on “financial hardship”?

A: There is no provision for financial hardship extensions or exemptions.

Q: What happens if we choose not to purchase or can not afford to purchase this equipment?

A: Agencies that do not have waveform capnography equipment available for use at the time of intubation and throughout the time when the airway device is in place shall not intubate after June 1, 2009. **Agencies may use rescue airways (Combitube, King Airway LTD, LMAs) in place of intubation and not be subject to the waveform capnography requirement.**

Q: Will an ILS/ALS agency still be considered an ILS/ALS agency even if they can’t intubate?

A: An ILS/ALS agency will be permitted to maintain its advanced-level certification even if the agency doesn’t provide intubation.

Q: What are the minimum specifications for waveform capnography equipment?

A: The equipment must provide **continuous End Tidal CO₂ waveform capnography**. **Numeric values alone or bar graphs are not acceptable.** The device must have the ability to **print and/or store** the data of the continuous waveform monitoring either at the hospital at the end of the EMS call or later for documentation as well as QA/QI purposes.

Q: Is anyone going to check to see if we actually have the equipment?

A: Waveform capnography will become the minimum standard of care for all patients intubated in the prehospital setting as of June 1st. The WREMAC is charged with the oversight and compliance with this program. There has been some evidence in the literature that as many as 1 in 4 (25%) endotracheal tubes placed in the prehospital setting becomes dislodged into the esophagus and is unrecognized by the provider. Other studies have shown that, with the use of waveform capnography, the number of esophageal intubations approaches zero (0%). Because of the life-and-death significance of this patient safety issue, the Western Regional Emergency Medical Advisory Committee (WREMAC) will actively review all intubations and equipment used by EMS agencies in the region.

Q: Will this requirement replace the need for primary or secondary tube confirmation?

A: Waveform capnography provides **definitive and continuous** tube confirmation. Agencies must continue to confirm tube placement using primary (visualization & auscultation) and secondary (end-tidal colorimetric device or esophageal detector device) confirmation methods in addition to waveform capnography.

Q: What do we do if we already purchased equipment that provides only numeric end-tidal values and doesn’t display a waveform?

A: The requirement states that the device must display continuous **waveform** capnography. Unfortunately, this equipment will not satisfy the forthcoming requirement.

Q: How many waveform capnography units do we have to purchase for our agency?

A: To best answer this question, each agency should have a discussion with their medical director (or designee). It is important to note that the equipment must be used **from the moment of first intubation through delivery of the patient to the receiving hospital or transferring EMS agency**. Only units equipped with waveform capnography equipment will be permitted to intubate, effective June 1, 2009.

Q: If our EMS agency has waveform capnography but we intercept with an EMS agency that does not have waveform capnography, what should we do?

A: The patient must have continuous waveform capnography through delivery of the patient to the receiving hospital. It will be important for your agency's EMS Officers to have a discussion with your neighboring/mutual aid EMS agencies to evaluate if this situation will affect your EMS agency. **The patient must be monitored using continuous waveform capnography if intubated; no exceptions.**

Q: What do we do at the conclusion of a call involving an intubated patient?

A: Providers must print a copy of the "code summary" (or equivalent) from the capnography device. This summary will provide written documentation of the tube's placement while in the care of EMS and should be maintained with the patient's PCR.

Q: Where do we get the training for waveform capnography?

A: Agencies should work with the agency medical director (or designee) for training. Should training become available through the WREMAC, the program agencies will be sending notices to EMS agencies throughout our region.

Q: Where do we get training on our waveform capnography equipment?

A: Manufacturers of the device should provide training to your providers when you purchase your equipment. This should be included in the sale of the equipment to your agency.

As a reminder, **all** medical device purchases must be approved by your agency medical director. Once your agency is prepared to move forward with purchase of capnography equipment, please forward the equipment specification sheet to your agency medical director.

Thank you in advance for your time and anticipated cooperation with this life-saving initiative.

Reference: SEMAC Advisory 08-01: <http://www.health.state.ny.us/nysdoh/ems/policy/s08-01.htm>