

PFC Working Group – Airway comments (Apr 14, 2014)

Summary comments:

-Airway management (and subsequent supplemental oxygen, ventilator support, gastric decompression, and a suction device) is a core capability for Prolonged Field Care.

-Every medic should be trained and maintained with the following airway skills at a minimum: opening and maintaining an airway (with adjunctive NP/OP), bag-valve-mask ventilation, placing a supraglottic airway, and cricothyrotomy.

-Further training, to include RSI training and advanced ventilator management, can be considered, but require maintenance training beyond current SOF medic training curriculums. Much like ultrasound training, these skills are within the educational reach of most SOF medics, but constant training and maintenance of the skill sets is required to ensure a medic is sustained and able to safely practice them.

-It is not sufficient to state a SOF medic can safely practice rapid sequence intubation (RSI), to include the administration of paralytic medications, from having initial training alone. Medical Directors (unit medical officers) should establish a maintenance curriculum if they wish to have their medics (or a certain select group of their medics) trained in this skill set. A proper maintenance curriculum should have both recurrent classroom training and supervised intubations on a regular basis.

-Cricothyrotomy training should be included in most medical training. It is considered a final common definitive solution for securing an airway. It allows a cuffed tracheal tube to be placed, and will allow adequate administration of PEEP, and use of a ventilator. Additionally, unlike placing and maintaining an endotracheal tube placed from the oral route (standard orotracheal intubation), maintaining a cric with sedation alone is much more feasible in an austere setting.

-In a patient who does not require an emergent cricothyrotomy, a reasonable approach might incorporate a supraglottic airway, then controlled cricothyrotomy with both sedation and local anesthesia.

-It is reasonable to use cricothyrotomy in a medical (non-trauma) patient that requires a cuffed endotracheal tube placed for airway maintenance.

-Robert Mabry and Richard Levitan (among others) are developing an algorithm that incorporates the recommended decision tree that incorporates the aforementioned techniques, to include a surgical cricothyrotomy.

Supraglottic airways:

-Supraglottic airways (SGA) are a reasonable device to provide temporary airway support.

-Patients may have a hard time tolerating an SGA if they are maintaining any upper airway reflexes. The SGA has been described as “a tennis ball on a stick” in the back of the oropharynx.

-SGA's required patent (not massively disrupted) anatomy to obtain an adequate seal. This may not be the case with massive upper airway trauma, as taught in TC3.

-Characteristics of "ideal" SGA's are: 1) low-pressure cuff, 2) gastric decompression ports, and 3) the ability to provide positive-pressure ventilation. Some available devices currently available on the market, which include these features are, in no particular order: King LT-D, iGel, LMA Supreme, and Cookgas ILA. The PFC Working Group does not endorse a particular product.

Sedation for airway maintenance:

-As previously stated in the PFC analgesia/sedation comments, ketamine is an excellent medication for providing sedation for those patients with potential airway or ventilation compromise. It has the unique characteristic of maintaining airway reflexes and not suppressing ventilatory drive.

-The combination of medications used for standard RSI (as practiced in an emergency department, or urban EMS systems) includes a paralytic agent. We cannot currently recommend the routine use of paralytic agents in obtaining an initial airway for the SOF medic. See comments above for RSI and advanced ventilator training above. Longer acting paralytics MAY have use after a reasonable airway has been obtained (for instance, in a patient who has had a cric successfully performed).