Out of the OR Airway – Not Just for Anesthesia

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Out of OR Airway Management
I have no COIs to report.

This material is the result of work supported with resources and the use of facilities at the Bay Pines VA Healthcare System. The contents of this presentation do not represent the views of the Department of Veterans Affairs or the United States Government.
Objectives:

1. The audience will understand the rationale for the Out of the OR Airway Management (OOORAM) program.

2. The learners will be able to discuss the aspects of credentialing of Airway Management providers.
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VA - RCA

Conducted a review of the VA’s own tort claims settlement.

In the 12 year period (1988-2000), there were 65 settlements in the VA tort claims database for improper intubations totaling:

$5,129,852.
In some hospitals, emergency airway management had been provided by residents, often in specialties where intubation training is not routine, such as internal medicine or surgery.

This was identified in our review of adverse events as a factor in some cases of failed management.
Given that emergency airway management and endotracheal intubation are within the scope of practice for respiratory therapists, they have tended to be the alternate provider of choice in many VHA hospitals. However, other hospitals have sought different solutions. In one hospital, two internal medicine chief residents live on the hospital grounds for a year and provide coverage after initial training in the OR.
Out of OR Airway Management

Background:

Another solution described by one VHA facility is a two-tiered system, whereby respiratory therapists are the initial responders for patients in cardiac arrest.

However, for patients requiring tracheal intubation but able to wait up to 30 minutes, they call in an anesthesiologist.
Background:

Urgent and emergent airway management is often required outside of an operating room. It is critical that appropriate individuals who respond to the airway management needs of the patient are trained and qualified to perform airway management.

Competence in airway management must be demonstrated and cannot be assumed based solely on job title, which includes physicians.
Over 11,000 times a year within the U.S. Department of Veterans Affairs, an emergency airway management event occurs outside of the operating room.

Anesthesia personnel (Anesthesiologists or CRNAs) are in-hospital around the clock in < 30% of VHA hospitals.
RCA Results: Proposed New VA national policy

Stipulating that those performing intubations must have privileges or scope of practice to perform intubations.

Establishing the criteria for privileging clinicians.

Ensuring that there is a training program for those seeking to be privileged in intubations at each VA facility.

Directing that an adjunctive device be used to confirm tube placement.
Abstract

Over the last 2 years, the U.S. Department of Veterans Affairs (VA) undertook a radical transformation of out-of-operating-room emergency airway management. As a result of root cause analyses on issues encountered in airway management responses, the VA gathered baseline data on who was providing airway management, use of devices to ensure correct placement of the endotracheal tubes, and difficulties encountered in intubations.
The results mirrored rates of complications recorded in the literature (i.e., **difficulties in over 10 percent** of cases and **esophageal intubations in 6 percent**). During off-tours, anesthesia service was not available in many places. As a result, residents and others were sometimes performing airway management without significant experience or expertise.

Furthermore, in **one-third of the cases**, no confirmatory adjunctive devices were being used to ensure the correct placement of endotracheal tubes.
OUT OF OR AIRWAY MANAGEMENT

PURPOSE: This Veterans Health Administration (VHA) Directive addresses the appropriate competencies of providers who perform urgent and emergent airway management outside of VHA facility operating rooms; it addresses required techniques to confirm successful endotracheal tube placement and required documentation when a patient has been determined to have a difficult-to-intubate airway. AUTHORITY: Title 38 United States Code 7301(b).
Urgent and emergent airway management is often required outside of an operating room. It is critical that appropriate individuals who respond to the airway management needs of the patient are trained and qualified to perform airway management.

Competence in airway management must be demonstrated and cannot be assumed based solely on job title, which includes physicians.
In-house airway management coverage by staff deemed competent according to this Directive is required 24/7.

For example, facilities have used appropriately qualified emergency room physicians, respiratory therapists, nurses, pulmonologists, and critical care physicians among others to provide out-of-operating-room airway management.
Didactic (Cognitive) Subject-Matter Expertise:

The clinician must demonstrate the required knowledge and expertise in the following areas:

Knowledge of the major anatomic structures of the airway including the satisfactory completion of the web-based TMS course and competency test by all clinicians, both LIP and Non-LIPs.

Requires: Completion of technical skills assessment with airway task trainers or human patient simulators demonstrating proficiency in airway management using four modalities identified below:

1. Ventilating using a bag and mask and either an oral or nasopharyngeal airway.
2. Insertion of a laryngeal mask airway (LMA).
3. Endotracheal intubation(s) utilizing direct laryngoscopy.
4. Endotracheal intubation(s) utilizing video-laryngoscopy.
Out of OR Airway Management
Requires: Completion of a skills assessment demonstrated on live patient(s), which includes successful (i.e., without complications) cases using the four modalities identified below:

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VHA DIRECTIVE 2012-032

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The professional job title should not rule out certain groups of clinicians for consideration.

If an anesthesia professional is not in-house 24/7, then properly trained Respiratory Therapists with documented airway management competencies would be the preferred responder for airway issues.
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In Addition: Ability to formulate and verbalize an appropriate alternative plan, if initial attempts at tracheal intubations are unsuccessful. This plan must include the mobilization of additional personnel, and possibly additional intubation device(s).

Knowledge of the indications and contraindications for pharmacologic agents for use in airway management. The knowledge for pharmacologic agents is not required for non-LIPs, such as Respiratory Therapists who perform OOORAM.

The use of muscle relaxants and/or paralytics should be ordered only by those who normally prescribe these drugs on a regular basis, and who are familiar with their risks and properties. **NOTE:** Clinicians (LIPs) requesting the use of muscle relaxants and/or paralytics for purpose of OOORAM will require an additional delineation of privilege with approval given by their respective Service Chief and MSEB.
Laryngoscopic Intubation Learning and Performance. 

The study included a total of 20 Respiratory therapy students, paramedic students, and medical students all scheduled to do a rotation in anesthesia.

All trainees were formally trained in the theoretical aspects of endotracheal intubation by a staff Anesthesiologist and were required to perform a minimum of 20 successful intubations on manikins prior to participating in the study.

Findings: Number of Intubations for $\geq 90\%$ success was more than 40!
### Out of OR Airway Management

#### Bay Pines VAHS – OOORAM Results

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>#Intub</th>
<th>Emergent</th>
<th>Elective</th>
<th>MD</th>
<th>RT</th>
<th>1st Pass%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>19</td>
<td>16/84.2%</td>
<td>3/15.8%</td>
<td>2/10.5%</td>
<td>17/89.5%</td>
<td>100%</td>
</tr>
<tr>
<td>2014</td>
<td>116</td>
<td>72/62%</td>
<td>44/37.9%</td>
<td>19/16.4%</td>
<td>97/83.6%</td>
<td>91%</td>
</tr>
<tr>
<td>2013</td>
<td>118</td>
<td>100/84.7%</td>
<td>18/15.7%</td>
<td>7/5.9%</td>
<td>111/94.1%</td>
<td>86.5%</td>
</tr>
<tr>
<td>2008-12</td>
<td>664</td>
<td>473/77%</td>
<td>141/23%</td>
<td>69/11%</td>
<td>545/89%</td>
<td>88%</td>
</tr>
</tbody>
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2014-5 Includes only four Anesthesia Intubations (2.9%)

Evenings and night intubations: 47.1% ‘08-’13; 48.2% ’14; OVERALL 47.2%

Our In-House Anesthesia Coverage Costs would be over $600,000/year
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Fred Gailey: “Your Honor, every one of these letters is addressed to Santa Claus. The Post Office has delivered them. Therefore the Post Office Department, a branch of the Federal Government, recognizes this man Kris Kringle to be the one and only Santa Claus.”

Judge Henry X. Harper: “Uh, since the United States Government declares this man to be Santa Claus, this court will not dispute it. Case dismissed.”
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