Title:
A Health System Change in Practice in the Care of Patients with Tracheal T Tube During a Code

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Session Title:
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Slot:
LB 03: Friday, September 26, 2014: 2:15 PM-3:00 PM
Scheduled Time:
2:15 PM

Keywords:
Tracheal T Tube, Transdisciplinary change in practice and Transdisciplinary education

References:
Caplan,R,Benumof, J et al (1992) " Practice Guidelines for Management of the Difficult Airway". American Society of Anesthesiologists: 520 N. Northwest Highway, Park Ridge, Illinois 60068-2573 Mallampati,R,Gatt,S et al (1985) "A Clinical Sign to Predict Difficult Tracheal intubation: A prospective Study". Canadian Anaesthesia Soc Journal , 32(4)), pp.:429-34 Lee,A, Fan,L et al (2006) : "A Systematic Review (Meta-Analysis) of the Accuracy of the Mallampati Tests to Predict the Difficult Airway". Anesthesia- Analgesia 102,pp.1867-1878 Crosby,E,Cooper,R et al (1998) " The Unanticipated Difficult Airway with Recommendations for Management". Canadian Journal of Anesthesiology, 45(7) pp 757-776 Samsoon,G,Young,J et al (1987)." Difficult Tracheal Intubation: A Retrospective Study".Anaesthesia,42,pp487-490 Shippey,B,(2006)." Case Series: The McGrath Videolaryngoscope- An Initial Clinical Evaluation". Canadian Journal of Anesthesia.54(4),pp 307-313 Cooper,R.(2007) "Complications Associated with the Use of the Glidesopce Videolaryngoscope, Canadian Journal of Anesthesia, 54(1) pp54-57 Jensen,N,Benumof,J. "The Difficult Airway in Head and Neck Tumor Surgery" www.anesthesiologyboards.com/pdfs/airway.pdf Amathieu,R, Combes,X et al. (2011) "An Algorithm for Difficult Airway management, Modified for Modern Optical Devices: A 2-Year Prospective Validation in Patients with Elective Abdominal. Gynecologic and Thyroid Surgery" .Anesthesiology 114(1) pp25-33 Core Curriculum Second Edition (2009) Society of Otorhinolaryngology and Head and Neck Nurses

Learning Activity:

	LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE	TIME ALLOTTED	FACULTY/SPEAKER	TEACHING/LEARNING METHOD	EVALUATION/FEEDBACK
	Example Critique selected definition of the term,	**Example** Definitions of "curriculum"	**Example** 20 minutes	**Example** Name, Credentials	**Example** Lecture PowerPoint presentation	**Example** Group discussion: What does cultural training mean to you?

	"curriculum"	Course of study Arrangements of instructional materials The subject matter that is taught Cultural "training" Planned engagement of learners			Participant feedback	
	Outline the critical elements in managing patients with tracheal T tube during a code	Review of Algorithm for Difficult Intubations	10 minutes	Malou Blanco Yarosh, MSN,RN,CNS	Lecture, power point and audience interaction	Group discussion: Critical elements of T tube competency
	Describe the process in changing transdisciplinary practice and how to implement these changes.	Change theory and creation of new educational program for MDs, RNs and RTs.	10 minutes	Clinical Nurse Specialist Director, Surgical Services UCLA Ronald Reagan Health System	Lecture and discussion, power point presentation	Group discussion: How to implement change

Abstract Text:

Purpose: Implement practice change across the healthsystem on the management of patients with a tracheal T Tube during a code.

Methods:

The absence of a universal adapter for a tracheal T Tube, in the unit, which is needed to fit and seal onto the ambag during a code, resulted in a catastrophic event , which rendered the patient brain anoxic with resultant persistent and continuous vegetative state.

The head and neck units have specific guidelines and standards for the care of a patient with a tracheal T Tube. Included in its onboarding of new staff are very specific staff competencies in suctioning and airway management in the event of a code on a patient with a tracheal T Tube. An algorithm was agreed upon by the departments of anesthesia, nursing and head and neck in managing such patients. These competencies specifically state that a universal adapter be provided by Respiratory Therapy. In this particular code, per guideline, Nursing requested an adapter but Respiratory Therapist on duty stated he has no knowledge of a tracheal T tube, nor is he aware of an adapter. In addition, the code blue team was not aware that the end of the endotracheal tube could be used as an adapter to connect to the tracheal T tube to maintain a seal and bag the patient. Instead, the anesthesiologist plugged the tracheal T tube and attempted to intubate the patient orally. The algorithm was not followed in this case, which calls for the removal of the tracheal T Tube and the insertion of a regular tracheostomy tube. In the absence of the adapter, nursing staff aggressively called for the removal of the T tube and the placement of a regular tracheostomy tube to no avail. The patient sustained a catastrophic brain anoxia with resultant vegetative state.

We have had similar events in the head and neck service where code blue staff were unfamiliar with the handling of specialty patients with surgically implanted airways. Three previous codes were root caused analysed, which resulted in the interprofessional and interdisiplinary adoption of an algorithm. Nursing led this effort and the departments of anesthesia and head and neck chairs and their residency education chairs were involved. Anesthesia and head and neck residents and nursing staff were educated on the difficult intubation algorithm.The algorithm is now placed in all emergency crash carts. The goal was to prevent incidents like the one described.

Results:

There is definite knowledge deficits on respirary therapy and code blue MDs on the management of patients with tracheal T Tubes. The health system failed in that the adapter was not available when needed. The adapter should have been made available at the unit level, despite its cost or classification as a “slow moving item”. These adapters should have been listed in our PAR and placed at our supply room. The ET tube connector could have been used as a substitute but nurses and MDs did not utilize it.

Massive re-education of RNS, RTs,MDs , inclusion of tracheal T tube adapters in competencies, review of difficult intubation algorithm, presence of T Tube adapters in unit emergency crash cart, non dependence on RT staff, empowering head and neck RNs to oblige code blue staff to follow set algorithm, specific orders and pictures of tracheal T tube on airway management in EHR were instituted.

Conclusion: To date, no repeat event as described above has occurred. To sustain this result, the head and neck Clinical Nurse Specialist meets every quarter with the Anesthesia Residency Education Chair to review the difficult intubation algorithm to ensure that code blue anesthesiologists are competent in a code involving a head and neck patient with a tracheal T Tube.