2) Solving the Challenge of Off Shift Intubations at a Community Hospital

Brigham and Women's Faulkner Hospital

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PROJECT DESCRIPTION

Nighttime or off shift intubations are a low frequency high risk procedure in a community hospital with no anesthesia in house and inconsistent level of skill from our traditional in house resident and hospitalist coverage. Solving the problem is complex and can be costly. We sought to design a safe, cost effective, sustainable solution.

The project takes place in a 150 bed hospital with a very active inpatient medical/ surgical service. We were challenged to identify a safe effective way to provide consistent "off hours" intubations while continuing to provide safe coverage throughout the rest of the institution. There are no off hours in house anesthesiologists to manage airway needs. Historically, urgent off shift intubations would be covered by an Emergency Physician covering in the department. In a staffing to volume model we were faced with 5 hour blocks of time each night and 12 hour shifts on the weekends with one Emergency Department provider. In this situation the attending would need to leave the department unmanned in order to assist in the urgent intubation. We deemed this too high a risk and set forth to identify a consistent affordable alternative to the Emergency providers as intubators.

A task force was created by the Chief Medical Officer and Chief Nursing Officer, consisting of the Chief of service in Anesthesia, Medicine, Surgery, Emergency Medicine, the Director of Special Testing and Director of Critical Care Nursing. Frequent input from quality & safety leaders, as well as pharmacy was obtained along with other stakeholders. We identified the nighttime providers in house, their comfort level and training in emergent intubations. Despite our significant number of in house providers during night and weekend shifts, with current training and practice from the physician pool, only the emergency physician has enough experience to be tasked with emergent intubations on a consistent basis. We explored all options. The Massachusetts Hospital Association Chief Medical Officer listserv was queried to see how like hospitals were handling this challenge. Potential solutions considered were hiring a Certified Nurse Anesthetist or Emergency Medical Technician to stay in house during coverage times, change the type of intensivist staffing in our Intensive Care Unit, or shift primary responsibility to our Respiratory Therapists. Changing our intensivist structure or having Certified Nurse Anesthetist in house were both extremely costly. Emergency Medical Technician coverage has been used at other hospitals but is difficult to reliably fill. These would be brand new full time equivalents without other clearly defined roles during their shift. Consideration for respiratory therapists had many inherent benefits. Intubation is within the scope of their practice and licensure. We have a small group of off shift providers to retrain and monitor and there is always a Respiratory Therapist in house.

Medications: Algorithms were developed by the Chief of Medicine with input from anesthesia, nursing and pharmacy to be administered by the physician involved in the patient code or decision to intubate.

Code medications were expanded and repackaged

We went live March 1, 2015.

OUTCOMES ACHIEVED

- Development of rigorous training experience for Respiratory Therapists who would be certified for independent intubations
- Creation of a multidisciplinary oversight team for ongoing safety and effectiveness monitoring
- Significant cost savings for the institution while maintain safe care for all of our patients

LESSONS LEARNED

- Although Respiratory Therapists are licensed to intubate in the state physician resistance has led to limited experience in an ongoing way
- An open and transparent process can lead to wide acceptance of a novel idea
- Careful evaluations of resources and scope of practice can lead to cost savings for the institution