

Interdisciplinary Approach Decreased ventilator Days on Elective Surgical Patients



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PURPOSE

1. Decreasing ventilator days to improve complications on elective surgery patients
2. Increase communication between the interdisciplinary team
3. Improve communication and integration between the critical care units at VCU

BACKGROUND

- The Center for Adult Critical Care at VCU Health offers services in five critical care unit for a variety of critically ill patients
- Increased ventilator days affects patient outcomes by placing them at risk of complications such as ventilator associated pneumonia
- Patients in all units had increased ventilator days when compared against the national benchmark
- The Surgical and Trauma ICU service is divided into two teams with over 40 patients total, among them patients that had elective surgery

METHODS

1. Gap Analysis in the Center for Adult Critical Care: Created a multidisciplinary team including the leadership from each unit, as well as other stake holders such as first responders, respiratory therapist and anesthesiologist
2. Met monthly during a period of 6 months to create an strategy and divide tasks
3. Nursing leadership in concert with bedside physicians emphasized questioning attitude for the need of mechanical ventilation
4. Respiratory therapist where encouraged to extubate earlier if parameters where met
5. Anesthesia came up with a check list backing up the decision of keeping the patient intubated

RESULTS

Gap Analysis with Center for Adult Critical Care

1. We found that increased ventilator days was an issue in every unit
2. We were able to share common challenges and opportunities to fix the issue
3. We created a common strategy including increasing emphasis on our previously established protocols
4. By meeting with the multidisciplinary team we shared a common goal and improved communication

Data Collection

1. After one month of establishing the direct bedside questioning attitude towards the need for mechanical ventilator we collected data
2. One hundred and fifty patients where followed consecutively for a period of ten days
3. We found no delay on extubation unless there was a clinical reason (ARDS, open abdomen etc)

Anesthesia Form

1. Our liaison for anesthesia met with a group of stake holders including residents, nurse anesthetist and leaders on the department
2. A form was created to enhance critical thinking when leaving a patient intubated
3. The use of this form was initiated in all comers, including and not limited to elective general surgery patients

DISCUSSION/IMPACT

1. By creating a group of stakeholders and discussion the issues we increased communication
2. Sharing common challenges helped us realized the problem was not isolated to a unit or a group of patients
3. Sharing strategies helped to improve the ventilator days on elective general surgery patients
4. We recognized that some common approaches could help the entire The Center for Adult Critical Care

FUTURE DIRECTIONS

1. We need to work on sustainability including and not limited to ventilator days
2. We identified opportunities for improving communication between the leaders and stakeholders in all critical care units