Decrease in Prolonged Ventilation in Cardiac Surgical Recovery Patients

Multidisciplinary Team: Respiratory Therapy, CSR Nursing, Anesthesia, CT Surgeons, POCT

**Introduction:**

In 2016 the mean initial ventilation hours for isolated CABG patients was 9.0 hours. The STS benchmark for isolated CABG patients is set for a mean of 6.0 hours. A collaboration between nursing, respiratory therapy, anesthesia, and Cardiothoracic (CT) Surgery was initiated to help decrease ventilator length of stay and improve quality outcomes in these isolated CABG patients.

**Interventions**

- A new ventilator management protocol was created based on best practice in 2016
- New ventilator weaning management protocol was initiated in 2016 with CT Surgeon
- RN & RT collaboration on extubating
- Designated RT for the CSR unit
- Training and Implementation of the Rapid Point 500 System with Respiratory Therapy and POCT in 2017
- Designated Anesthesia Team for CSR in 2016

**Results**

- 29 Respiratory Therapists received Rapid Point 500 training and currently maintain this competency
- Reduced our median total ventilation hours from 9.0 in 2016 to 5.5 hours in 2017
- Second reduction of this time in 2018 to 4.9 hours.
- Initial Ventilation Hours < 6 hours in total isolated CABG patients increased from 59.5% to 83.5%
- Like Groups and STS were currently at 58.8% and 57.7%.

**Learnings:**

The Multi-Disciplinary engagement on this quality initiative has made a huge impact on patient outcomes. Isolated CABG Data Summary shows that we have significantly reduced the total initial ventilation hours and have surpassed the like hospital and exceeded the current national benchmark for Surgical Thoracic Society. Since the project began in 2016 we have sustained change and have significantly decreased our variation in these type of cases.