

# 8<sup>TH</sup> CARDIOVASCULAR NURSING & NURSE PRACTITIONERS MEETING

August 08-09, 2016 Las Vegas, USA

## Project X2B8- An integrated multi-disciplinary approach to fast track extubation in routine cardiac surgery patients

Roxanne M Martinez, Laura Perez-Aoki and Michelle Taylor  
Orange Coast Memorial, USA

**Introduction:** Prolonged intubation in cardiac surgery patients has been associated with poor patient outcomes including risk of aspiration, ventilator-associated pneumonia, and ventilator induced lung injury. It also has been associated with prolonged Intensive Care Unit (ICU) and in-hospital length of stay (LOS). Prolonged intubation also increases cost to the hospital and individual patients. The literature suggests that reducing intubation time can lead to improve quality of care and postoperative patient outcomes. Our intubation time was 6.8 hours, which was higher than the six hours goal set forth by the Society of Thoracic Surgery.

**Aim:** The aim of this study is to decrease the extubation time to less than six hours. The outcome variables that we measured were extubation time and in-hospital LOS.

**Method:** We included all patients who underwent heart surgery (n=139) via sternotomy and minimally invasive procedures. Patients were identified as early extubation candidates by evaluating their PaO<sub>2</sub>/FiO<sub>2</sub> (P/F) ratio. Patients who had a P/F ratio of greater than 200 were deemed eligible for early extubation. The rapid ventilator weaning protocol was implemented on patients whose P/F ratio was less than 200.

**Results:** Following the implementation of the rapid weaning protocol, intubation time in our ICU for post cardiac surgery patients were decreased from 6.8 hours to 2.89 hours; and in-hospital LOS decreased from 6.5 days to 5.3 days.

**Conclusion:** We recommend to use a standardized protocol to assess individual patient eligibility for early extubation. The rapid ventilator weaning protocol was effective in assisting early extubation of post cardiac surgery patients.

### Biography

Roxanne M Martinez is a Board Certified Adult Gerontology Acute Care Nurse Practitioner and Clinical Nurse Specialist at Orange Coast Memorial with Cardiovascular Services and works with various patient populations including cardiac surgery, heart failure, and post acute myocardial infarctions. She has completed her Master of Science from University of California, Los Angeles. She serves in the board of American Association of Critical Care Nurses, Greater Long Beach Orange County chapter and is an active member of National Association of Hispanic Nurses, Los Angeles chapter.

[rmartinez2@memorialcare.org](mailto:rmartinez2@memorialcare.org)

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