PURPOSE

• Surgical Thoracic Society (STS) defines early extubation as occurring within 6 hours of surgery.
• Success relies on interprofessional collaboration and has multifactorial influence.
• Purpose was to determine the current intubation times in stable cardiac surgery patients and identify barriers to early extubation.

BACKGROUND/SIGNIFICANCE

• Our CTICU observed variability in time to extubation.
• Actual time to extubation was not known.
• Benefits to early extubation include (1):
  • Shortened ICU stay
  • Decreased morbidity and mortality
  • Decreased use of resources
• Extubation within 6 hours is not linked with increased post-operative complications or reintubation compared to conventional (non FTE).

METHODS

• Data was collected for 101 stable cardiac surgery patients in 2 cohorts to account for seasonal variability in practice in our academic health system.
• Cohort 1 (n=50) had cardiac surgery in June and July, 2016.
• Cohort 2 (n=51) had surgery in September and October of 2016.
• Intubation times were obtained from the electronic health record (EHR). Barriers to extubation were defined for consistency and tracked.

RESULTS

• Barriers to extubation were categorized by:
  • Work-flow issues
  • Patient-specific problems (respiratory or metabolic acidosis, altered mental status).
• In 31 patients intubated > 6 hours, no barrier was identified.
• Prolonged intubation was attributed to:
  • lack of delineation of stable, cardiac surgery patients
  • individual variations in the weaning process for sedatives and the ventilator.

CONCLUSION

• 54.4% (55/101) of “Plan A” cardiac surgery patients were extubated within 6 h of surgery
• 29.7% (30/101) were extubated within 6-8 hours
• Data suggests eliminating barriers could significantly improve extubation times.
• Next steps include result dissemination to the team, standardization of criteria for early extubation, and implementation of a FTE protocol.