Introduction and Goals

Our playing field is a 637-bed hospital with 86 adult critical care beds. Our Ventilator Associated Event (VAE) Committee engaged all levels of staff to reduce our VAE rate which was under-performing in comparison to Health Research & Educational Trust – Hospital Improvement Innovation Network (HRET HIIN) and NDACI benchmarks. Utilizing a comprehensive approach, we were able to tackle complexity and reduce our VAEs by greater than 55.4% in one year. Keys to our success were transparency, fundamental innovation (transport bundle, cascaded goals), use of Six Sigma Black Belt tools and processes, and assuring high reliability through continued validation, accountability, and leadership commitment. Our team embodies a culture of continuous improvement while eliminating patient harm.

Plan Do Study Act

Teammates

We applied structured PDSA and DMII as our improvement methodology. Frontline team members were critical as they identified root causes we otherwise may have overlooked. Additionally, we utilized and applied AHRQ, HRET HIIN, AACN concepts and processes such as engaging stakeholders, incorporating reliable design, and rapid cycle change. We also participated in AHA HRET HIIN, AHRQ webinars, virtual meetings, conference calls, and gleaned best practices from HI, SHEA, APIC, IOM, ARH, and peer reviewed papers. The Quality Management Systems innovative approach for continuous engagement also scored a touchdown. They created cascading goals for all stake holders in each of our ICUs.

Holding our Gains

- Cascading goals lead to annual merit evaluations for all stakeholders.
- Pain Agitation Delirium/Progressive Early Mobility
- Transport Protocol
- Comparison of VAE rate & Vent length (Impact on early mobility)
- Engage emergency teams
- Intensivist model/Interdisciplinary rounds

Achieved cost savings of $850,000 with a 55% VAE (lin yr)
- 81% lin VAE in the past 12 mos vs baseline
- 1 transport-associated VAE by 79%