**DEFINE**

Problem Statement:
Anticipating the release of the CDC/NHSN new ventilator associated events (VAE) Guideline the quality team determined the need for a plan to implement and educate clinical staff on the new Guideline and surveillance processes. A multi-disciplinary team of clinicians will need to collaborate to impact this quality indicator (CDC, 2012).

Project AIM:
Achieve VAE rate of < 10.0 for ventilated critical care population by June 2013 and sustain for 6 months.

Team:
In October 2012 the VAE team was formed including infection prevention, respiratory care, laboratory, critical care (CC) nursing, CC physician and CC educator.

**MEASURE / DATA**

No VAE benchmark has been established as this is a new Guideline. Previous ventilator associated pneumonia (VAP) prevention project resulted in improved VAP rates and the team postulated that implementing and educating staff on VAE surveillance, could yield similar improvements.

**ANALYSIS / IMPROVEMENTS**

Test of Change #1: Data Collection Plan (December 2012)

Plan: Design a VAE Data Collection method including: bedside data, IP interpretation EMR reporting.

Do:
Bedside Assessment Documentation form was developed by team and implemented in two of four adult critical care units.

Study:
Respiratory completed forms nightly and reviewed by night coordinator. Delivery of form to coordinator was inconsistent.

Act:
Recognized need for all staff education on VAE Guideline with appropriate data collection responsibilities of team members.

• Achieved goal of <10.0 VAE Rate and surpassing goal to sustaining < 8.8 for 3 consecutive quarters.
• The transition to the bedside VAE data collection further engaged staff to participate in data collection and acknowledged VAE care needs.
• Next step PDSA is to develop and implement strategies to decrease ventilator length of stay therefore decrease VAE.

Test of Change #2: Staff Education (January 2013)

Plan: Develop education plan for all nurses and respiratory therapist.

Do:
Multiple training methods and evaluation of workflow process included: Continuing IHI VAP bundle prevention components in Computer Based Training modules and 1:1 Training at the bedside.

Study:
Evaluation showed data collection at bedside completed accurately

Act:
Rolled out data collection form to all four critical care units

**RESULTS TO DATE**

- VAE Total Events/Month by Unit in Critical Care 2013
- VAE Rate for All Critical Care Units Q1 – Q3 2013

**OUTCOMES / LESSONS LEARNED**

- Achieved goal of <10.0 VAE Rate and surpassing goal to sustaining < 8.8 for 3 consecutive quarters.
- The transition to the bedside VAE data collection further engaged staff to participate in data collection and acknowledged VAE care needs.
- Next step PDSA is to develop and implement strategies to decrease ventilator length of stay therefore decrease VAE.

**REFERENCES**