PRACTICUM SUMMARY REPORT

Name: Manuel Soria Orozco.

Team Members: Quality and Safety Department of the General Hospital "Dr. Ignacio Morones", Faculty of Medicine of Autonomous University of San Luis Potosi Mexico.

Project Title: Reduce Incidence of ventilator-associated pneumonia in the ICU

University/Organization Name: Faculty of Medicine of Autonomous University of San Luis Potosi, Mexico

Health System Sponsor Name: General Hospital "Dr. Ignacio Morones" San Luis Potosi (Sponsorship from Dr. Torres)

Aim of project (1-2 sentences)

Our aim is to reduce the incidence of ventilator-associated pneumonia in the ICU by 10 percent within six months. Specifically, we want to decrease ventilator-associated pneumonia with already established preventive measures and supportive care modalities in the ICU

Planned changes tested (2-3 sentences)

First we will test whether providing education sessions to all health care professionals in the ICU decreases ventilator-associated pneumonia, and then we are going to work with nursing and physician leaders to implement a Ventilator Bundle Checklist adapted from the IHI. This Ventilator Bundle Checklist includes the following preventive measures: head of the bed 30o, daily sedative interruption and daily assessment of readiness to extubate, PUD prophylaxis, DVT prophylaxis and daily oral care with chlorhexidine.

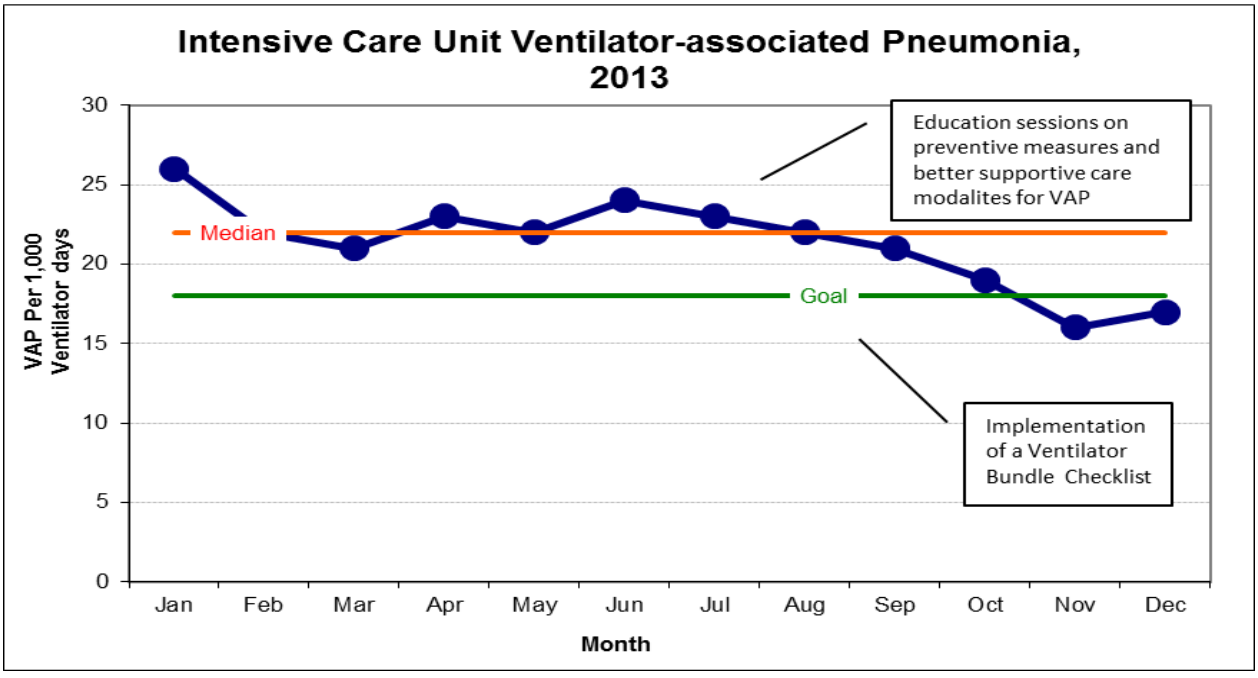
For this project, we will also observe the behaviors of staff with regards to Bundle Checklist in order to evaluate the impact of these adapted tools in improving health care processes.

Predictions (2-3 sentences)

1. Knowledge on preventive measures and better supportive care modalities and implementation of a Ventilator Bundle Checklist will decrease in 10% ventilator-associated pneumonia in the ICU.

2. Implementation and attachment to the checklist might be at first difficult among medical and nursing staff

Results



Summary of results (3-4 sentences):

After establishing a baseline of incidence of ventilation-associated pneumonia in the first 6 months of the year, we gave all medical and nursing staff from both day and night shift educational sessions on preventive measures and better supportive care modalities for VAP. We found poor attendance to sessions and poor final knowledge after education sessions with no significant decrease in nosocomial infection incidence. We next implemented a ventilator bundle checklist adapted from the IHI. After this, we saw a decrease in the incidence of ventilator-associate pneumonia. Ultimately, we corroborate that multidimensional interventions may be most effective.

Learning (4-5 sentences)

Comparison of questions, predictions, and analysis of data:

In our first PDSA, we wanted to determine if education sessions were likely to decrease ventilation-associated pneumonia. In PDSA cycle #2 we implemented a ventilator bundle checklist to improve attachment to preventive measures and enhance the health care delivery process.

We predicted that implementation and compliance to the checklist might be at first difficult among medical and nursing staff because it would be seen as more "paper work" by the personnel. However when staff became aware of the impact in reducing nosocomial infections the implementation and attachment was easier.

The final result was an overall decrease in ventilation-associated pneumonia. Median VAPs were 22 per 1000 ventilator days, archiving the goal (less than 18 VAPS per 1000 ventilator days) in the last two months of the year. Further follow up in the incidence of VAPs will be necessary to establish a possible trend.

Impact on systems (3-4 sentences)

Discuss the project's significance on the local system and any findings that may be generalizable to other systems:

Due to the significance of new preventive measures and supportive care modalities in reducing ventilator-associated pneumonia, acknowledge and compliance is imperative by healthcare professionals. We want to ensure that best practices and a culture of safety towards this topic are introduced in benefit of UCI patients. The Hospital will benefit from reducing hospital stay, excess costs, morbidity and mortality related to ventilator-associated pneumonia.

The poor compliance to the checklist at the beginning was expected because it was seen as more "paper work" by the medical and nursing staff. However when staff became aware of the impact in reducing nosocomial infections the implementation and attachment was easier.

Conclusions (3-5 sentences)

Summarize the outcome of the project. Is this project sustainable? What are the requirements for sustainability?

We predict that sustainability would be improved with strong institutional commitment to good practices, in addition to awareness by the health care professionals that adoption of preventive measures can decrease the risks inherited to the health care process and favor a safety culture.
The cost of this intervention is minimal since it is only the implementation and compliance of a bundle checklist with no extra cost associated. This intervention also appears to be something the General Hospital is ready to embrace in other services such as internal medicine and surgery.

Reflections/Discussions (5-7 sentences)
Discuss the factors that promoted the success of the project and that were barriers to success. What did you learn from doing this project? What are your reflections on the role of the team?

A ventilator bundle checklist approach to decrease incidence of VAP seems to be effective and in a low cost. Including the Quality and Safety Department along with the Prevention of Nosocomial Infections Department may have helped to achieve a full cooperation of all personnel from the ICU.
It helped to have focused goal and a low cost intervention to accomplish the goal, but most important the awareness and participation of nursing and medical staff from the ICU made it possible.

By signing this document (electronic signature is acceptable), I attest that the information provided by the learners in this project is accurate.

LEARNER(S):

Signature: _____

Printed Name: Manuel Soria Orozco

Area of Study: Medicine Student, Faculty of Medicine of Autonomous University of San Luis Potosi Mexico.

Signature: _____

Printed Name: _____

Area of Study: _____

Signature: _____

Printed Name: _____

Area of Study: _____

Signature: _____

Printed Name: _____

Area of Study: _____

Signature: _____

Printed Name: _____

Area of Study: _____

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Printed Name: _____

Area of Study: _____

FACULTY SPONSOR:

Signature: _____

Printed Name: Dr. Abraham Torres Montes

Institution: Quality and Safety Department at the General Hospital "Dr. Ignacio Morones" and professor at the Faculty of Medicine of Autonomous University of San Luis Potosi Mexico.

HEALTH SYSTEM SPONSOR (if different from faculty sponsor):

Signature: _____

Printed Name: _____

Institution: _____

AUTHORIZATION
Do the learners, faculty sponsor, and health system sponsor authorize this project for publication at www.ihi.org?

X Yes ☐ No