

## **Hospital Acquired Pneumonia Prevention: Literature Review**

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## **Hospital Acquired Pneumonia Prevention**

Quality improvement is an approach that provides data and research to improve the safety and quality of healthcare. The Quality and Safety Education for Nurses (QSEN) challenges student nurses by helping them develop the knowledge, skills, and attitudes necessary to provide quality and safe care in the future (QSEN Institute, 2020). This project enables the student to search for more effective and beneficial methods of patient care by utilizing research such as quality improvement. By staying up to date on current research and protocols, the nurse can ensure that the patient receives the best treatment possible. Lack of effort to keep up with current information can lead to severe complications for the patient. Quality improvement can help eliminate complications and help the healthcare team, and patients work together more efficiently. This paper will discuss hospital-acquired pneumonia (HAP) and the effectiveness of current recommended preventative measures. Much of the care a patient receives comes from the nurse, so understanding how patients develop HAP will assist the nurse in taking the proper precautions to protect the patient. HAP can lead to serious medical complications, so prevention is of utmost importance.

### **Article Summary**

#### **Introduction (note that the key points is flush to the far left)**

HAP is pneumonia that develops at or after 48 hours of hospital admission (Pássaro et al., 2016). Between 5-20+ patients develop HAP per 1,000 patients admitted (Pássaro et al., 2016). Those at highest risk include the elderly, male gender, multiorgan failure, and lung disease (Pássaro et al., 2016). Little evidence is available about the direct prevention of HAP in patients

without mechanical ventilation. This article discusses some of the main preventative measures, including hand hygiene, oral health, patient positioning, mobilization, dysphagia, aspiration, viral infections, and stress-bleeding prophylaxis and their effectiveness (Pássaro et al., 2016). For many of these interventions, the nurse is the patient's front line of care, so being up to date on current protocols is essential.

## **Overview**

This article uses data and outcomes to represent which prevention methods proved effective in reducing HAP. This study applies to the QSEN quality improvement. It presents the student with knowledge of effective preventative measures vs. those not so effective and evaluates the effectiveness of changes made and their role in improving patient health. Hand hygiene is one of the simplest ways to prevent the spread of infection. This study revealed that having hand sanitizer near the patient's bed increased overall hand hygiene overall nosocomial infections from 16.9 to 9.9% (Pássaro et al., 2016). More extensive studies are needed to prove the effectiveness in reducing HAP, but the potential exists. Preventative measures using oral care ranged from mouth rinse to toothbrushing. Rinses with 0.12 % chlorhexidine rinse, toothbrushing, and 1% povidone-iodine scrubbing of the pharynx decreased HAP incidences between 6.6-11.7% (Pássaro et al., 2016). The nurse can complete these rinses with morning hygiene. Dysphagia and aspiration are a significant concern for stroke patients as 37% are likely to develop pneumonia (Pássaro et al., 2016). The nurse can oversee dysphagia management through non-oral feedings, texture-modified diets, and swallowing therapy programs (Pássaro et al., 2016). A study of ventilated and non-ventilated patients in the semi-recumbent position reveals little change to a slight increase in complications related to microaspiration (Pássaro et al., 2016). Nurses should be aware of position changes by non-ventilated patients and the

increased risk for microaspiration. Passive mobilization and postural changes three times a day results in a 61% decrease in HAP (Pássaro et al., 2016). Encouraging the patient to move and assisting in postural changes are duties the nurse can implicate. The spread of viral infections decreased with the general use of masks and contact/droplet precautions (Pássaro et al., 2016). Ensuring proper signage indicating precautions and following through with these protocols will reduce the spread of viruses.

### **Quality Improvement**

This quality improvement effort would be most beneficial in hospitals, emphasizing intensive care units, post-surgery, and medical-surgical. Implementation of this effort would be simple as few materials are needed. Staff training, educational materials, and materials such as chlorhexidine would need to be achieved before implementation and carried through during and after implementation.

By reducing HAP, the cost of treatment for both the patient and facility decreases. Less acquired infections will result in increased patient safety and satisfaction. Nursing safety and satisfaction will also increase as they can do their jobs more efficiently, creating a less stressful work environment and lessening their overall workload.

### **Application to Nursing**

Here add in a summary of the information learned to the application to practice. Follow the MEAL paragraph formatting and use Grammarly.com. Be sure to cover all aspects within the rubric. Be sure to use double space and to tab over for your first line of a new paragraph.

### **Practice**

Paragraph goes here discussing the application to practice. Review the rubric for full requirements. Follow the MEAL paragraph formatting and use Grammarly.com.

### **Education**

Paragraph goes here discussing the application to education. Review the rubric for full requirements. Follow the MEAL paragraph formatting and use Grammarly.com.

### **Research**

Paragraph goes here discussing the application of research. Review the rubric for full requirements. Follow the MEAL paragraph formatting and use Grammarly.com.

### **Conclusion**

Write a conclusion here in your overall paper. Review the rubric for full requirements. Follow the MEAL paragraph formatting and use Grammarly.com.

### **References**

Albright, C., & Whelan, P. (2019). Learning reflection: A nursing student recounts her experience with a medical emergency team. *Alberta RN*, 67(6), 27. [www.nurses.ab.ca](http://www.nurses.ab.ca).

\*As you can see the reference is centered and is bolded. The first line is NOT tabbed over, all other lines are, this is called hanging indentation. All references are double spaced. All sources should be listed in alphabetical order. Be sure to use the APA 7<sup>th</sup> edition and guide for your reference page.