Implementing Evidence-Based Practice to Reduce Hospital-Acquired Infections: A Quality Improvement Initiative

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Hospital-acquired infections (HAIs) continue to pose a challenge to patient safety and quality of healthcare, leading to high morbidity, mortality, and financial impact. Even with the improvements in infection control measures, HAI rates are alarming, especially in surgical and intensive care units. The implementation of research evidence in the reduction of HAIs has been hampered in most healthcare facilities due to the fact that there has been a wide gap between the two. The paper aims to explain a proposed evidence-based practice project that will help to decrease hospital-acquired infections at a university-affiliated medical center. The paper will discuss site selection, stakeholder participation, identified practice issues, and the selected translation framework.

Site Selection

The appropriate choice of the healthcare setting plays a crucial role in the success of any evidence-based practice (EBP) quality improvement (QI) project. It was evaluated three possible settings were evaluated: a community hospital, a university-affiliated medical center, and a rural healthcare clinic. In every setting, there are unique opportunities and challenges in implementing an EBP QI project to prevent hospital-acquired infections (HAIs).

The university-affiliated medical center was chosen because of the wide range of resources, intensive focus on clinical research, and the ability to carry out large-scale interventions. It has a wide variety of patients, including critically ill patients in intensive care units and those who receive surgery and routine checkups. Such an environment offers a strong context of evidence-based practices due to the availability of academic help, high-quality technology, and a multidisciplinary clinical team (McEwen & Wills, 2019). The mission revolves around the promotion of patient care through innovation, which aligns with the objectives of the initiative to promote better infection control practices and patient safety

outcomes. Although the size of the medical center may be a challenge to coordinate the research, its research infrastructure and the possibility to involve interdisciplinary teams offer an excellent environment.

Although the community hospital has a wide variety of patients and a rich community-based care approach, it is obstructed by its financial situation. These aspects can restrict the sustainability of the initiative (Rew et al., 2020). The rural healthcare clinic is a small-scale clinic that gives individual care in an underserved location; thus, it is not as realistic to implement it on a large scale. So, the university-based medical center has been identified as the most appropriate location where the EBP QI project should be implemented.

Stakeholders

The success of any QI initiative depends on stakeholder involvement. In the university-affiliated medical center, the stakeholders are the senior leadership, clinical employees, and patients. The Chief Medical Officer (CMO) and the Director of Nursing will be at the center of senior leadership and will be primarily involved in the provision of administrative support, resource acquisition, and the focus of the initiative on the center's mission (Dang et al., 2022). They have to support them so that the initiative gets the required support and is aligned with the overall quality of work of the hospital.

Nurses, physicians, and allied health professionals form part of the clinical personnel, and they play a significant role in the process of adopting infection control procedures. They will play a vital role in the success of the initiative as they will be key in the education and training of the initiative and ensure that new practices are followed. As direct care providers, they are in charge of the effective implementation of evidence-based interventions when dealing with patients (McEwen & Wills, 2019). Engaging the clinical staff in the process beginning will make them more invested in the process and increase the chances of implementation.

Stakeholders also include patients since they are the ones who will benefit most from the improved infection control practices. Active participation of patients in the educational process will inform the patients about the necessity of infection prevention and make them contribute willingly to the efforts to minimize HAIs (Dang et al., 2022). The success of the initiative is also going to rely on their feedback regarding the effectiveness of the interventions (Bleich et al., 2019). The involvement of stakeholders on all levels, senior leadership, clinical staff, and patients, makes the initiative successful and sustainable.

Practice or Organization Problem

The major issue that is considered in the framework of the Quality Improvement (QI) initiative is the ongoing high rate of hospital-acquired infections (HAIs) in the university-based medical center. Although various infection control practices, such as hand hygiene and sterilization processes, have been implemented, the center still experiences infection rates that are above the expected levels, especially in the surgery and intensive care departments (White et al., 2024). HAIs present a huge potential for patient harm that can be prevented, which is why they are a high priority as far as enhancing patient safety, quality of care, and patient outcomes are concerned (Dang et al., 2022). Minimizing HAIs is not only important in terms of the health of the patients but also part of the core mission of the center to offer high-quality, inexpensive care.

HAIs are both a clinical and an economic priority. In addition to the direct effect on the health of patients, infections also add to the economic costs of healthcare systems. Studies have demonstrated that infection control practices, including enhanced hand hygiene, appropriate sterilization methodology, and early prophylactic antibiotics, can have the effect of lowering the rate of HAIs (Rew et al., 2020). Also, infection control bundles and education programs of the staff have been effective in minimizing the infection rates in healthcare

facilities (McEwen & Wills, 2019). Thus, HAIs are of great concern to enhance patient safety and efficiency of care delivery and lower the costs of healthcare.

The purpose of the QI initiative is to decrease the HAIs at the medical center. It is done through the implementation of evidence-based processes, such as hand hygiene, sterilization, and staff education (White et al., 2024). The initiative will enhance care delivery to patients, operational efficiency, and assist the medical center in achieving its goal of providing high-quality and affordable care to every patient.

In order to carry out such changes, the translation of evidence to clinical practice will be carried out using the Iowa Model of Evidence-Based Practice. The Iowa Model is a logical framework that helps detect practice issues and analyze the evidence to formulate interventions to enhance care (Rew et al., 2020). The model can effectively be applied in treating HAIs, given that it provides a clear and systematic approach to incorporating evidence-based practices in everyday care.

Translation Framework

The Iowa Model places stress on cross-team collaboration, and the approach to care is consistent with the model of the medical center. The first strategy is to determine the problem, which is high HAI rates, and examine evidence to determine the most effective interventions. Such interventions can involve enhanced hand hygiene procedures, enhanced sterilization procedures, and extensive education programs for patients (Dang et al., 2022). When chosen, such interventions are applied to clinical settings. Moreover, the model places an emphasis on continuous assessment and feedback and keeps interventions effective.

The cyclic model of the Iowa Model makes it possible to constantly develop interventions so that they are not fixed and are constantly changing according to the needs of the medical center and the patients. Frequent evaluations will be done so as to gauge the progress of the reduction of HAIs, and modifications will be made depending on the feedback

(White et al., 2024). The flexibility guarantees that the initiative develops to cope with new challenges and changing health issues.

Conclusion

The given paper has presented an evidence-based practice project aimed at decreasing hospital-acquired infections in a medical center located at a university. The project is addressing a serious practice issue involving major stakeholders and applying the Iowa Model to evidence-based interventions. The program will enhance patient safety, the quality of care, and operational efficiency by minimizing HAIs, which will eventually lead to the achievement of the objective of the medical center, which is to provide high-quality and affordable care. Such initial measures are critical in achieving long-term success in healthcare outcomes.

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