Preventing Hospital Readmission in the Sepsis Patient: A Multi-Modal Discharge National Framework

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INTRODUCTION

• Sepsis, the leading cause of hospital readmissions in the United States, accounts for $23.7 billion of aggregate costs.1
• The Medicare Hospital Readmissions Reduction Program (HRRP) requires hospitals to provide efficient patient discharge coordination to prevent readmissions or risk financial penalties.
• Effective discharge coordination and post-discharge follow-ups are strategies to mitigate hospital readmissions.
• The continual increase in sepsis readmissions has placed a huge burden on all aspects of the healthcare system: financial, societal, and humanitarian costs.
• Although a substantial value capture opportunity exists to reduce avoidable readmissions, a significant gap exists in sepsis-specific discharge interventions.

OBJECTIVES

The purpose of this Doctorate of Nursing Practice (DNP) quality improvement project was to design and evaluate an evidence-based framework for reducing sepsis readmissions in the acute care setting with national impact.

Project Aims:
1) Develop a multi-modal discharge framework to reduce sepsis readmissions.
2) Implement and evaluate the framework in reducing readmissions.
3) Recommend framework for sustainability and scalability at the national level.

METHODS

This DNP project was implemented at Dignity Health Glendale Memorial Hospital & Health Center (GMHHHC) in Glendale, California. The hospital is part of CommonSpirit Health, a 21-state not-for-profit health system with over 1,000 care sites across the U.S.

Aim 1
The multidisciplinary framework developed incorporated literature on: (1) Sepsis Nurse-Navigator driven discharge interventions; (2) Patient awareness using an expert-validated sepsis education tool; and (3) Patient-Nurse collaboration using telehealth or telephonic follow-up at critical time points.

Aim 2
• 75 community hospital patients with qualifying CMS (2019) Diagnosis Related Group (DRG) 870, 871 and 872, discharging to home or an assisted living facility participated for a total of 6 months.
• Follow-up consultations occurred at 24, 72, 120 hours, and continued at 7, 14, and 28 days post discharge conducted by dedicated Sepsis Nurse Navigators.
• Comparative analysis included review of 30-day readmissions pre and post program.

Aim 3
• Analysis on model sustainability and scalability were conducted based on results. Potential improvements in the framework are suggested, including COVID-19 education.
• Patient and nurse satisfaction as indicators of sustainability or opportunities for improvement were examined.

RESULTS

• A total of 6 patients were readmitted during the 6-month period, resulting in a 17.2% readmission rate.
• At least 95% of the patients reported satisfaction from the follow-ups (M= 4.85 [95% CI= 4.76, 4.93]).
• At least 95% of the nurses self-reported satisfaction with the follow-up procedures (M=4.95 [95% CI= 4.93, 4.99]).

DISCUSSION AND CONCLUSION

NATIONAL IMPACT: The framework demonstrated promise in reducing sepsis readmissions. Baseline readmission rate was 44.2% vs. 17.2% post project implementation. This reduction was 20% greater than the average 30-day all-cause readmission rate among Medicare patients.3

An estimated cost savings of $700,000 was projected for those patients not readmitted during the project phase. The impact extends to significant cost reduction for US healthcare systems.

SELECTED REFERENCES


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