



**THE ROLE OF MEDICAL-SURGICAL NURSES IN PREVENTING HOSPITAL READMISSIONS AMONG HEART FAILURE PATIENTS: A LITERATURE REVIEW**

**Azza Anwar Aly<sup>1</sup>, Hanaa Ibrahim El Sayed<sup>2</sup>, Mervat Ali Khamis<sup>3</sup>, Nadia Hassan Ali, Awad<sup>4</sup>, Hamda Ahmed Mohamed Eldesoky<sup>5</sup>, Hoda Mohamed Flife<sup>6</sup>, Hadaiea Ismail Abo baker<sup>7</sup>, Wafaa Hassan Awad<sup>8</sup>**

<sup>1</sup>Assistant Professor of Medical Surgical Nursing. Faculty of Nursing, Damanhour University, Egypt.

<sup>1</sup>Associate Professor of Medical-Surgical Nursing, Ibsina National College for Medical Studies, Saudi Arabia. <sup>2</sup>Associate Professor of Pediatric Nursing, Ibsina National College for Medical Studies, Saudi Arabia.

<sup>3</sup> Professor of Reproductive Health Nursing, Ibsina National College for Medical Studies, Saudi Arabia.

<sup>4</sup>Associate professor, Nursing Program, Batterjee Medical Collage, Jeddah 21442, Saudi Arabia

<sup>5</sup>Medical-Surgical Nursing Department, Nursing College, Najran University, Najran, Saudi Arabia

<sup>6</sup>Assistant Professor, Nursing Education Department, North Private College of Nursing, Arar, Saudi Arabia.

<sup>7</sup>Assistant professor, Medical-Surgical Nursing, North Private College of Nursing, Arar, Saudi Arabia.

<sup>8</sup> Associate Professor of Medical-Surgical Nursing, Ibsina National College for Medical Studies, Saudi Arabia.

**Abstract**

**Background:** Heart failure (HF) remains a leading cause of hospital readmissions globally, posing significant healthcare costs and patient burden. Evidence highlights the pivotal role of medical-surgical nurses in post-discharge education, care coordination, and early intervention, which significantly reduces readmissions. **Aim:** This critical review aims to examine the role of medical-surgical nurses in preventing hospital readmissions among heart failure patients. **Data Search, Review, and Collection:** Data were collected from 2018 to 2025 using databases like PubMed, CINAHL, and the Saudi Digital Library. Keywords included "heart failure," "hospital readmissions," "nursing interventions," and "patient education."

**Implications for Clinical Practice:** This review emphasizes the need for structured nursing interventions, patient-centered education, and transitional care programs to minimize HF readmissions. Nurses are integral to achieving sustainable improvements in heart failure outcomes through education, early identification of deterioration, medication reconciliation, and emotional support. Heart failure remains a global epidemic affecting millions. By empowering patients through education and continuity of care, medical-surgical nurses can

significantly mitigate the cycle of readmissions, improving both quality of life and system efficiency.

**Keywords:** Heart failure, hospital readmissions, medical-surgical nurses, patient education, transitional care, nursing interventions

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### **Introduction**

Heart failure is a chronic progressive condition characterized by the heart's inability to pump blood efficiently, leading to significant morbidity, mortality, and economic burden (Virani et al., 2021). Hospital readmissions within 30 days post-discharge are prevalent among HF patients, often indicating gaps in transitional care. Medical-surgical nurses are uniquely positioned to bridge these gaps through education, monitoring, and coordination efforts (Aggarwal et al., 2022).

Recent data suggest that nearly 20% of heart failure patients are readmitted within 30 days, and about 50% within six months (Greysen et al., 2022). This high rate of readmissions not only affects the patient's quality of life but also strains healthcare resources. Many readmissions are preventable with effective nursing interventions targeting patient self-management, medication adherence, and early recognition of symptoms (McIlvennan & Allen, 2020; Vedel et al., 2021). Thus, identifying, developing, and reinforcing the role of nurses within multidisciplinary heart failure management teams is critical to ensuring better patient outcomes and reducing unnecessary hospitalizations.

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### **Significance of the Study**

Heart failure readmissions have profound implications for patient outcomes, healthcare costs, and hospital performance metrics. The significance of this study lies in its focus on highlighting the strategic role of medical-surgical nurses, often the frontline caregivers, in preventing avoidable hospitalizations.

By synthesizing existing evidence, this review offers healthcare professionals, educators, and policymakers a consolidated view of effective nursing interventions. Furthermore, it stresses the need for institutional support in empowering nurses with the necessary skills, resources, and autonomy to perform comprehensive transitional care tasks (Greysen et al., 2022).

Understanding and promoting the nurse's role in heart failure management is paramount for achieving better health outcomes, improving patient satisfaction, and advancing healthcare system sustainability.

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### **Literature Review**

Heart failure management is multifaceted, involving pharmacologic therapy, lifestyle modification, and monitoring (McDonagh et al., 2021). Medical-surgical nurses are integral to the management and prevention of heart failure (HF) readmissions, providing comprehensive care during both hospitalization and post-discharge. Studies emphasize that effective discharge planning, which includes patient education, medication management, and symptom monitoring, significantly contributes to reducing readmission rates (Tomasco et al., 2023). Nurses play a critical role in ensuring patients understand their treatment plans, which include adherence to medications, recognition of symptoms, and appropriate lifestyle changes (Aly, et al, 2023, Yu et al., 2022).

One of the key strategies for preventing HF readmissions is nursing-led transitional care programs (TCPs), such as home visits, telehealth monitoring, and phone-based coaching. These interventions have been associated with significant reductions in 30-day readmission rates, highlighting the importance of continuous care after discharge (Freedland et al., 2022). Furthermore, nurse-driven interventions that are tailored to individual patient risk factors enhance adherence to treatment and increase patient satisfaction, reinforcing the value of personalized care (Bress et al., 2022).

Emerging evidence highlights the importance of integrating mental health support, nutrition counseling, and exercise prescriptions into routine HF care (Kalbfleisch et al., 2020). Innovative models such as nurse-led clinics and multidisciplinary teams have proven effective in reducing mortality and hospitalizations (Bress et al., 2022). Technology-driven interventions, particularly telemonitoring and mobile health applications, provide additional layers of safety for high-risk patients by facilitating early symptom detection and timely responses (Wang et al., 2023).

However, despite these advances, barriers to optimal HF management remain. Low health literacy, polypharmacy, socioeconomic disparities, and lack of social support are significant obstacles that hinder the effectiveness of interventions (Ziaieian et al., 2018). To address these challenges, culturally sensitive and patient-centered approaches are essential, and nurses are in a unique position to implement such strategies. By engaging with patients at all levels of care, nurses can help overcome these barriers, facilitating better outcomes and preventing hospital readmissions (Aly, et al, 2024).

### **Aim**

This critical review aims to explore the role of medical-surgical nurses in reducing hospital readmissions among heart failure patients.

### **Systematic Search Strategy**

**Keywords:** Heart failure, hospital readmissions, nursing role, transitional care, patient education, prevention

**Databases:** PubMed, CINAHL, Saudi Digital Library (SDL)

**Search Period:** 2018 - 2025

**Filters Applied:** English language, full-text articles, studies focused on nursing interventions and heart failure readmissions.

### **Systematic Search Process**

The following PICOT research question guided the search:

**P:** Heart failure patients

**I:** Nursing interventions during hospitalization and post-discharge care

**C:** Standard care without structured interventions

**O:** Reduced hospital readmissions

**T:** Within 30 days post-discharge

**Search terms:** "Heart failure," "hospital readmissions," "medical-surgical nursing," "patient education," "transitional care," "nursing interventions."

A focused search necessitated the use of synonyms, phrases, and brand names to generate review that aligned with the PICOT research variables as outlined in the table below:

**Table 1: Keywords and Synonyms**

Concept	Keywords/Synonyms
Heart Failure	Congestive heart failure, HF, chronic heart failure (Virani et al., 2021; McDonagh et al., 2021)
Hospital Readmissions	Rehospitalization, repeat admission, 30-day readmission (Aggarwal et al., 2022; Greysen et al., 2022)
Nursing Interventions	Nurse-led program, discharge planning, transitional care, care coordination (Tomasco et al., 2023; Vedel et al., 2021)
Patient Education	Self-care education, patient instruction, health coaching (Freedland et al., 2022; Yu et al., 2022)
Transitional Care	Continuity of care, post-discharge support, follow-up care (McIlvennan & Allen, 2020; Wang et al., 2023)

### Theoretical Framework

Orem's Self-Care Deficit Nursing Theory (SCDNT) serves as the framework for this review. SCDNT emphasizes the importance of promoting patient autonomy and self-care capabilities (Younas & Quennell, 2019). Heart failure management heavily depends on patients' ability to engage in self-monitoring, adhere to treatment regimens, and recognize early warning signs — tasks where nursing support is essential.

### Nursing Implications

Medical-surgical nurses play an essential role through a variety of mechanisms:

- **Patient Education:** Nurses are responsible for ensuring that patients and their caregivers understand the disease process, recognize symptoms of decompensation, and know when to seek help. Topics include medication adherence, sodium and fluid restrictions, daily weight monitoring, and activity guidelines (Kalbfleisch et al., 2020).
- **Discharge Planning:** Nurses facilitate comprehensive discharge planning, including arranging follow-up appointments, ensuring medication reconciliation, and providing tailored written and verbal instructions (Gathright et al., 2020).
- **Care Coordination:** Nurses serve as liaisons between patients, families, primary care providers, cardiologists, pharmacists, and community health resources to ensure seamless transition from hospital to home (Bress et al., 2022).
- **Use of Technology:** Nurses leverage telehealth platforms, mobile apps, and remote monitoring devices to track patients' weight, vital signs, and symptoms post-discharge (Wang et al., 2023).

- **Advocacy and Psychosocial Support:** Recognizing the psychosocial challenges heart failure patients face, nurses advocate for social services, mental health support, and financial assistance.
- **Continuous Quality Improvement:** Nurses participate in quality initiatives aimed at evaluating and improving heart failure care pathways, ensuring evidence-based practices are implemented effectively (Freedland et al., 2022).

In summary, by adopting a proactive, holistic approach to patient care, medical-surgical nurses can significantly impact readmission rates, demonstrating their essential value within heart failure management teams.

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## Conclusion

Heart failure readmissions remain a critical challenge in healthcare. Medical-surgical nurses, through education, transitional care, and advocacy, serve as frontline agents in mitigating this issue. Their efforts lead to improved quality of life for patients, reduced healthcare costs, and enhanced system efficiency.

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## Future Directions and Research Implications

Future research should evaluate:

- The long-term effects of nurse-led interventions on readmission and mortality rates.
- Integration of artificial intelligence and remote monitoring in nursing practice.
- Culturally tailored interventions addressing diverse populations.

Nursing leadership should focus on advocating for policies that recognize and expand the role of nurses in transitional care management.

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