

# Specialized Post-Discharge Care For Patients With Surgical Injuries And Stoms: Reducing Readmissions And Economic Impact On Public Health

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## Abstract

*The post-discharge period is a critical phase for patients undergoing complex surgeries, especially those with difficult-to-heal surgical wounds and/or those with ostomies. The absence of specialized monitoring and lack of adequate guidance increase the risk of complications, readmissions, and clinical worsening, directly impacting the costs of the health system. This study aimed to analyze, through an integrative literature review, the contribution of specialized nursing care in the post-discharge period of patients with surgical wounds and ostomies. The search was conducted in the PubMed, Scopus, and CINAHL databases, in English and Portuguese, that addressed the role of stoma nurses in preventing complications and ensuring continuity of outpatient or home care. The results showed that the presence of specialized nurses significantly reduces readmission rates, improves clinical outcomes, accelerates wound healing, prevents complications in ostomies, and increases patient satisfaction. A positive economic impact was also identified, with a decrease in hospital costs related to avoidable readmissions. It is concluded that the implementation of specialized services focused on the care of postoperative wounds and assistance to ostomized patients constitutes a strategy with high clinical, social and economic impact. This approach contributes to the qualification of care, values the work of specialist nurses and strengthens the sustainability of the health system.*

**Keywords:** *Surgical wounds; Wound healing; Ostomies; Specialized nursing; Hospital discharge.*

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## I. Introduction

The post-hospital discharge period represents a critical phase in the recovery process of patients undergoing complex surgeries. Among the most vulnerable groups in this context are patients with difficult-to-heal surgical wounds and those who become carriers of intestinal or urinary ostomies. Although both conditions result from surgical procedures, they present distinct clinical characteristics and require continuous specialized care, especially in the home environment. Difficult-to-heal surgical wounds require continuous monitoring, use of appropriate dressings, and evidence-based interventions to avoid complications and readmissions (BLISS et al., 2014).

Ostomies require specific care for the peristomal skin, adaptation to collection devices and constant monitoring to prevent complications such as dermatitis, retractions and extravasation (WOCN Society, 2023).

Complex surgical wounds include dehiscence, surgical site infections, and injuries in high-risk areas, such as the sacral region or lower limbs. Their poor progression can lead to prolonged readmissions, amputations, and even death, especially in elderly patients or those with comorbidities (CDC, 2022).

Ostomies, such as colostomies, ileostomies and urostomies, are planned surgical openings that require adaptation to collecting devices and careful management of the peristomal skin, in order to prevent complications such as dermatitis, prolapses or extravasations (American Cancer Society, 2025).

The literature indicates that the lack of specialized support after hospital discharge is associated with high rates of avoidable readmissions, with significant impacts on health systems, such as Medicare in the United States. According to the Centers for Medicare & Medicaid Services (CMS), one in five hospital readmissions is related to a failure in continuity of care, generating costs exceeding US\$ 26 billion per year (CMS, 2024).

In this scenario, the work of nurses specialized in wounds and ostomies is essential to promote technical monitoring, health education and prevention of complications, contributing to improving quality of life and reducing costs with repeated hospitalizations. The implementation of specialized clinics represents a promising strategy, with the potential for positive clinical, social and economic impact, especially in regions with vulnerable populations and overburdened health systems.

Therefore, the objective of this study is to analyze, through an integrative literature review, the role of specialized nursing care in the post-hospital discharge of patients with complex surgical wounds and stomas, highlighting its impact on reducing complications, readmissions and costs for the health system.

## **II. Literature Review**

### **Transition Of Care After Hospital Discharge**

Hospital discharge does not represent the end of treatment, but rather a critical stage in recovery. Many patients, especially those with complex surgical wounds or ostomies, face significant challenges when returning home. Lack of guidance, technical support, and ongoing follow-up can lead to serious complications, avoidable readmissions, and negative impacts on quality of life (CMS, 2024).

Studies show that the work of specialist nurses contributes to the reduction of adverse events, improvement in healing and prevention of complications, promoting greater safety and adherence to treatment. In this context, continuity of care by qualified professionals is a determining factor for therapeutic success. Post-discharge monitoring by specialist nurses favors adherence to treatment, early detection of changes and the autonomy of the patient and their family in managing clinical needs (BLISS et al., 2014).

#### **Complex Surgical Wounds: Risks And Need For Specialized Support**

Surgical wounds that do not heal properly are at high risk of infection, dehiscence, and necrosis. Elderly patients, immunosuppressed patients, or patients with comorbidities (such as diabetes, obesity, and malnutrition) are more likely to have adverse postoperative outcomes (CDC, 2022).

The role of the wound specialist nurse is essential for the correct application of dressings, control of inflammatory signs, prevention of complications and promotion of evidence-based healing (WHS, 2021).

#### **Ostomies: Rehabilitation And Prevention Of Complications**

Ostomized patients face intense physical and emotional changes in the postoperative period. Specialized ostomy care includes the correct selection of the collection device, constant assessment of the peristomal skin, teaching self-care, and monitoring social and psychological adaptation. This process, when performed by trained nurses, reduces complications such as dermatitis, prolapses, retractions, and extravasations (WOCN SOCIETY, 2023).

Furthermore, ongoing education and emotional support favor the patient's reintegration into everyday life and contribute to improving quality of life during the rehabilitation period (AMERICAN CANCER SOCIETY, 2025).

#### **The Relevance Of Specialized Post-Discharge Care**

Hospital discharge does not represent the end of treatment, but rather a delicate transition that requires technical support and continuous monitoring, especially among patients with complex surgical wounds or ostomies. Lack of continuity in post-discharge care can result in worsening of the clinical condition, avoidable complications, and the need for hospital readmission, directly impacting the health system and the patient's quality of life. According to the Centers for Medicare & Medicaid Services (CMS), approximately 20% of hospitalized patients are readmitted within 30 days after discharge, generating an estimated cost of US\$26 billion per year, of which approximately US\$17 billion is considered avoidable. These readmissions are usually due to infections, failures in wound management, peristomal complications, or lack of adequate home care guidance (CMS, 2024).

Complications such as wound infection, suture dehiscence, and necrosis are common in patients with complex surgical wounds. The role of nurses specialized in wound care in these cases is essential for the use of advanced dressings, monitoring healing, and preventing worsening. The involvement of professionals certified in wound care, ostomies, and incontinence is associated with reduced adverse events, improved clinical outcomes, and shorter recovery time (BLISS et al., 2014).

In the case of ostomies, specialized care is also essential. The Wound, Ostomy and Continence Nurses Society highlights that qualified attention to the peristomal skin, the choice and proper adjustment of collection devices, in addition to health education for self-care, are actions that prevent common complications such as dermatitis, extravasation and retractions, improving the patient's adaptation and their quality of life (WOCN SOCIETY, 2023).

In a systematic review study, it was identified that community care led by nurses specialized in wounds is associated with better clinical outcomes, greater patient satisfaction and reduced treatment costs. The study reinforces that close follow-up, even outside the hospital environment, is an effective and financially sustainable solution for the treatment of patients with chronic and complex wounds (DHAR et al., 2020).

In addition to the clinical impact, unnecessary readmissions compromise patient confidence in the health system, increase family stress, and prolong the rehabilitation process. Coleman et al. (2006)

demonstrated that well-structured interventions in transitional care between hospital and home can significantly reduce the number of readmissions and improve coordination between services.

In this context, Naylor et al. (2011) argue that specialized post-discharge care should be an integral part of health policies, especially for elderly people with complex conditions. Investment in qualified professionals presents measurable economic returns and direct benefits in patient safety.

Finally, data from the Health Resources and Services Administration (HRSA, 2023) indicate that there is a shortage of specialized professionals in several regions of the United States, especially in economically disadvantaged areas. Services with specialized professionals contribute not only to expanding access, but also to the equity and sustainability of the health system.

### **III. Method**

This study is an integrative literature review, with the objective of identifying and analyzing scientific evidence on the impact of specialized nursing care in the post-discharge period of patients with complex surgical wounds and stomas.

The search was performed in the PubMed, Scopus and CINAHL databases to ensure the inclusion of updated and clinically relevant studies.

Articles published in English and Portuguese, with access to the full text, and that directly addressed the role of nurses in post-discharge care for patients with surgical wounds and/or stomas were included.

The following controlled (MeSH) and free terms were used, combined by Boolean operators AND/OR: Surgical wounds; Wound healing; Ostomies; Specialized nursing; Hospital discharge.

The inclusion criteria adopted were published articles that addressed surgical wounds, ostomies and hospital readmissions, as well as studies involving the work of nurses in postoperative care or during the transition of care. Studies of the systematic review, observational, qualitative or clinical trial type were considered eligible.

Studies that did not directly address the role of the nurse, articles focused exclusively on medical or hospital care without continuity of care at home, as well as duplicate publications or those not available in full were excluded.

### **IV. Results**

The analysis of the selected studies highlighted the importance of specialized nursing care after hospital discharge. The main findings were organized by category:

#### **Reduction In Hospital Admissions**

Several studies indicate that monitoring by specialized nurses significantly reduces hospital readmissions in the first 30 days after discharge, especially in patients with complex surgical wounds (BLISS et al., 2014).

In addition, Naylor et al. (2011) highlight that nursing interventions in the transition between hospital and home are especially effective in elderly patients, contributing to the reduction of readmissions and the improvement of clinical outcomes.

#### **Improved Healing Of Complex Wounds**

Patients monitored by specialist nurses have reduced healing time, lower incidence of infections and better pain control. The study by Dhar et al. (2020) reinforces the effectiveness of nurse-led care in a community setting.

#### **Prevention Of Complications In Stomachies**

Specialized postoperative monitoring of ostomized patients has been shown to be effective in preventing dermatitis, retractions, prolapses, and extravasations. The Wound, Ostomy and Continence Nurses Society (2023) recommends continuous follow-up with certified nurses to ensure functional and emotional adaptation to the device.

#### **Reducing Care Costs**

According to the Centers for Medicare & Medicaid Services, preventable hospital readmissions generate an estimated cost of more than US\$26 billion per year for the North American healthcare system. This figure considers unplanned hospitalizations that occur, for the most part, up to 30 days after hospital discharge, many of which are considered potentially preventable with appropriate interventions in transitional care (CMS, 2024).

Additionally, the Agency for Healthcare Research and Quality highlights that many of these readmissions could be prevented through specialized monitoring by nursing professionals, especially in the

home environment. The agency reinforces that strategies such as structured clinical follow-up, patient guidance and continuous support after discharge contribute significantly to reducing hospital readmissions, improving care and economic indicators (AHRQ, 2022).

#### Patient Satisfaction And Safety

Specialized post-discharge care increases patient and family satisfaction, improves adherence to the care plan, and strengthens the therapeutic bond. Coleman et al. (2006) and Naylor et al. (2011) show that structured hospital-home transition strategies have a positive impact on patients' clinical, emotional, and functional outcomes.

The findings of this integrative review reaffirm the importance of specialized care in the post-discharge period, particularly in patients with complex surgical wounds and ostomies.

The literature analyzed consistently demonstrated that the performance of trained nurses contributes significantly to the prevention of complications, reduction of readmissions and improvement of clinical outcomes (BLISS et al., 2014; DHAR et al., 2020).

Complex surgical wounds represent a significant challenge to health care, especially in elderly populations or those with comorbidities. When not adequately monitored, they can progress to infections, tissue necrosis and the need for new procedures, increasing not only healthcare costs but also the patient's physical and emotional suffering (NAYLOR et al., 2011; AHRQ, 2022).

In the case of ostomies, continuous care is essential to ensure the patient's functional and emotional adaptation, as well as to avoid complications such as peristomal dermatitis, retractions, leakage and infections. The support of a specialized nurse allows guidance on the proper use of devices, skin care and self-care strategies, which directly contributes to the empowerment and rehabilitation of individuals (WOCN, 2023).

In addition to the clinical benefits, studies have shown the economic relevance of specialized care. Avoidable hospital readmissions have a significant financial impact on the health system. According to data from the CMS (2024), the associated costs exceed 26 billion dollars annually, a large part of which could be avoided by implementing specialized outpatient services to follow up these patients.

Another relevant point is patient satisfaction and their perception of safety during the continuity of treatment. When care is centered on the person, provided by trained professionals, there is greater adherence to the therapeutic plan, improved bonding with the health team and increased quality of life (COLEMAN et al., 2006).

The results of this review also suggest that structuring specialized services for wounds and ostomies may be an effective strategy, especially in regions lacking professionals with this expertise. The presence of these outpatient services represents not only an advance in care, but also a measure of interest in public health, as it promotes safe dehospitalization, optimization of resources and humanized care.

Thus, it becomes evident that investing in post-discharge care carried out by specialized nurses is an evidence-based practice, which aligns with the principles of comprehensive, person-centered and value-based care, and is applicable in both hospital and community contexts.

## V. Conclusion

This integrative review allows us to conclude that specialized nursing care in the post-hospital discharge period transcends the technical dimension, configuring itself as an essential component for the quality and continuity of health care. The work of specialized nurses, with patients with complex surgical wounds and ostomies, not only reduces clinical risks, but also promotes the humanization of care, the strengthening of patient autonomy and the effectiveness of therapeutic processes in the home environment.

Specialized knowledge, combined with qualified listening and educational support, becomes decisive in preventing complications, reducing hospital recurrence and providing comprehensive rehabilitation for the individual.

In the context of post-operative care, the specialist nurse assumes a leadership role in longitudinal monitoring and in the articulation between levels of care, contributing to the construction of safer and more effective care pathways.

In addition to the clinical benefits, the implementation of specialized outpatient services for wounds and ostomies represents a concrete response to the sustainability challenges of the health system. It is an initiative that meets not only individual demands, but also collective commitments to efficiency, equity and the rationalization of public resources.

In view of this, it is recommended that public policies and institutional strategies prioritize the integration of specialized care after discharge, recognizing it as a structuring investment for contemporary public health and for the valorization of advanced nursing practice.

#### Implications For Practice

Based on the findings of this review, it is recommended that public and private healthcare institutions incorporate specialized nursing services focused on the care of difficult-to-heal surgical wounds and ostomies as an integral part of the post-discharge therapeutic plan. These services should be structured in a multidisciplinary manner, with defined routines for early assessment, dressing changes, device adaptation, and self-care education.

At the clinical level, specialized nurses must be included in care transition teams, with an active role in developing individualized care plans, scheduled home visits, outpatient care and ongoing guidance to patients and their families.

In the field of health management, the data obtained suggest the need to include indicators of readmission and preventable complications as parameters for assessing the quality of care. This can support the financing and expansion of services focused on specialized postoperative care.

Furthermore, the evidence can guide the development of evidence-based care protocols and support public policies that recognize the value of advanced nursing practice in the longitudinal monitoring of surgical patients, with a focus on reducing avoidable risks and costs.

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