



## Caring for the Geriatric Surgical Patient: Discussing the Unique Challenges and Considerations in Medical-Surgical Nursing

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**Abstract:** *The geriatric population, defined as individuals aged 65 years and older, is increasing globally. With this demographic shift, there has been a parallel increase in the number of geriatric patients undergoing surgical procedures. Caring for geriatric surgical patients presents unique challenges and considerations for medical-surgical nurses. This review article aims to discuss the specific challenges and considerations faced by nurses when caring for geriatric surgical patients. Key aspects include preoperative assessment, intraoperative care, and postoperative management, with a focus on optimizing outcomes and ensuring the best quality of care. By addressing these challenges and implementing appropriate strategies, medical-surgical nurses can enhance the care and well-being of geriatric surgical patients.*

**Keywords:** *Geriatric, Surgical Patient, Medical-Surgical Nursing, Challenges, Considerations, Preoperative Assessment, Intraoperative Care, Postoperative Management*

**Introduction:** The geriatric population, defined as individuals aged 65 years and older, is increasing globally. This demographic shift is primarily due to improved healthcare and advancements in medical science, leading to increased life expectancy. With this increase in the elderly population, there has been a parallel rise in the number of geriatric patients undergoing surgical procedures. Caring for geriatric surgical patients presents unique challenges and considerations for medical-surgical nurses. These challenges encompass preoperative assessment, intraoperative care, and postoperative management. Understanding and addressing these challenges are crucial for optimizing outcomes and ensuring the best quality of care for this vulnerable patient population.

### Challenges in Caring for Geriatric Surgical Patients:

#### 1. Preoperative Assessment:

Preoperative assessment is a critical phase in caring for geriatric surgical patients. Several factors should be considered during the preoperative assessment:

##### a. Comprehensive Geriatric Assessment (CGA):

Comprehensive Geriatric Assessment (CGA) is an essential tool in evaluating the health status and functional capacity of geriatric patients. It encompasses medical, functional, psychological, and social domains. Conducting a CGA helps in identifying

vulnerabilities and tailoring the care plan to meet the individual needs of geriatric patients.

The CGA is composed of several key elements:

- Medical history, focusing on chronic medical conditions, previous surgeries, and medication review.
- Functional assessment, including mobility, activities of daily living (ADLs), and instrumental activities of daily living (IADLs).
- Psychological assessment, including cognition, mood, and risk of depression or anxiety.
- Social assessment, considering factors such as living arrangements, social support, and access to resources.

The CGA provides a holistic view of the patient's health and functional status, allowing medical-surgical nurses to identify potential risks and tailor the perioperative care plan accordingly.

##### b. Frailty Assessment:

Frailty is a common condition among geriatric patients, characterized by reduced physiological reserve and increased vulnerability to stressors. Frailty assessment tools, such as the Clinical Frailty Scale (CFS) or the Frailty Index, can aid in



identifying frail patients. Recognizing frailty is crucial for preoperative risk stratification and optimizing perioperative care. The Clinical Frailty Scale (CFS) is a validated tool used to assess frailty in geriatric patients. It categorizes patients into one of nine categories, ranging from very fit to terminally ill, based on their level of frailty. The Frailty Index, on the other hand, is calculated based on deficits in various domains, including comorbidities, functional status, and cognitive function.

Frailty assessment allows medical-surgical nurses to identify patients at increased risk of adverse outcomes and tailor perioperative management strategies accordingly.

## 2. Intraoperative Care:

Intraoperative care for geriatric surgical patients requires special attention to various factors:

### a. Anesthetic Considerations:

Geriatric patients are more susceptible to the effects of anesthesia due to age-related physiological changes. Close monitoring and titration of anesthetic agents are essential to prevent complications such as hypotension, delirium, and postoperative cognitive dysfunction.

Age-related changes in physiology, such as decreased cardiac output, decreased renal function, and increased sensitivity to medications, make geriatric patients more vulnerable to anesthesia-related complications. Therefore, anesthetic management should be tailored to the individual patient, considering factors such as renal function, cognitive status, and risk of polypharmacy.

In addition to traditional general anesthesia, regional anesthesia techniques, such as neuraxial blocks and peripheral nerve blocks, are increasingly used in geriatric surgical patients. These techniques offer several advantages, including improved postoperative pain control, reduced opioid consumption, and decreased risk of postoperative delirium.

### b. Fluid Management:

Geriatric patients are at increased risk of fluid and electrolyte imbalances. Individualized fluid management strategies, considering comorbidities and baseline functional status, are crucial to prevent complications such as dehydration, electrolyte abnormalities, and acute kidney injury.

Age-related changes in renal function, such as decreased glomerular filtration rate and impaired concentrating ability, affect the pharmacokinetics of intravenous fluids and electrolytes. Therefore, fluid management should be tailored to the individual

patient, considering factors such as baseline renal function, volume status, and fluid losses during surgery.

Goal-directed fluid therapy, guided by hemodynamic monitoring, is increasingly used in geriatric surgical patients to optimize tissue perfusion and oxygen delivery. This approach has been shown to reduce the risk of postoperative complications, such as acute kidney injury, pulmonary edema, and surgical site infections.

### c. Perioperative Pain Management:

Effective pain management is essential for geriatric surgical patients to enhance postoperative recovery and prevent complications. Multimodal analgesia, including pharmacological and non-pharmacological interventions, should be tailored to the individual patient, considering factors such as renal function, cognitive status, and risk of polypharmacy.

Pain management in geriatric surgical patients requires a balanced approach, considering the potential risks and benefits of analgesic medications. Opioid analgesics, such as morphine, hydromorphone, and fentanyl, are commonly used for moderate to severe pain in the perioperative period. However, they are associated with several adverse effects, including respiratory depression, sedation, nausea, vomiting, constipation, and delirium.

Non-opioid analgesics, such as acetaminophen, nonsteroidal anti-inflammatory drugs (NSAIDs), and gabapentinoids, are increasingly used in geriatric surgical patients to reduce the need for opioids and minimize opioid-related adverse effects. Regional anesthesia techniques, such as neuraxial blocks and peripheral nerve blocks, are also used to provide targeted pain relief and minimize systemic opioid exposure.

## 3. Postoperative Management:

Postoperative management is a critical phase in the care of geriatric surgical patients. Key considerations include:

### a. Early Mobilization:

Early mobilization is crucial for preventing complications such as venous thromboembolism, pneumonia, and pressure injuries in geriatric surgical patients. Implementing early mobilization protocols and involving physiotherapists can facilitate faster recovery and improve outcomes.

Age-related changes in muscle mass, strength, and endurance affect the functional recovery of geriatric surgical patients. Therefore, early mobilization should be initiated as soon as possible after surgery, considering factors such as pain control, hemodynamic stability, and surgical site integrity.



Early mobilization has been shown to reduce the risk of postoperative complications, such as venous thromboembolism, pneumonia, and pressure injuries. It also improves functional recovery, reduces the length of hospital stay, and enhances the quality of life in geriatric surgical patients.

#### b. Nutritional Support:

Geriatric patients are at increased risk of malnutrition, which can adversely affect postoperative recovery. Nutritional assessment and appropriate interventions, such as nutritional supplementation, should be initiated early to optimize outcomes and prevent complications.

Age-related changes in taste, smell, appetite, and gastrointestinal function affect the nutritional status of geriatric surgical patients. Therefore, nutritional support should be tailored to the individual patient, considering factors such as dietary preferences, chewing and swallowing difficulties, and gastrointestinal tolerance.

Malnutrition is associated with an increased risk of postoperative complications, such as surgical site infections, delayed wound healing, and impaired immune function. Therefore, early identification and treatment of malnutrition are essential to optimize outcomes and improve the quality of life in geriatric surgical patients.

#### c. Cognitive Assessment and Delirium Prevention:

Geriatric patients are at increased risk of postoperative delirium due to factors such as underlying cognitive impairment, anesthesia, and surgery-related stress. Cognitive assessment using tools such as the Confusion Assessment Method (CAM) and implementation of delirium prevention strategies, including early mobilization, adequate pain control, and orienting techniques, are essential to minimize the risk of delirium.

Delirium is a common and serious complication in geriatric surgical patients, associated with increased morbidity, mortality, and healthcare costs. Therefore, early identification and treatment of delirium are essential to optimize outcomes and improve the quality of life in geriatric surgical patients.

**Conclusion:** Caring for geriatric surgical patients presents unique challenges and considerations for medical-surgical nurses. By addressing these challenges and implementing appropriate strategies, nurses can optimize outcomes and ensure the best quality of care for this vulnerable patient population. Preoperative assessment, intraoperative care, and postoperative management should be tailored to meet the

individual needs of geriatric patients, focusing on enhancing recovery and preventing complications.

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Brio Innovative Journal of Novel Research (BIJNR)

Jan - Jun 2024

Issue:1

Volume: 1

<https://doi.org/10.7326/0003-4819-157-3-201208070-00458>

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