

Colorectal Surgery and the Older Adult: How to Optimize Surgical Care for Geriatric Patients

Needs Assessment:

The population is aging and older adults are increasingly undergoing surgery for a broad range of colorectal conditions. Colorectal surgeons need to understand the distinct risks inherent in the care of older adults and identify ways to improve the quality of care for this vulnerable population.

Learning Objectives: With this educational module, the practicing colorectal surgeon will:

- 1) Understand the importance of aligning surgical care with the goals of the older adults
- 2) Identify ways to screen older adults for geriatric vulnerabilities
- 3) Identify opportunities for interdisciplinary postoperative care to prevent postoperative delirium and functional decline
- 4) Become familiar with the [American College of Surgeons Geriatric Surgery Verification Program](#)

Introduction

Older adults (age 65 and older) are the fastest growing portion of the population, and the number of older adults in the US is estimated to double by 2050. With this growth, there has been a parallel increase in surgeries performed on older adults. Nearly half of the operations currently performed in the U.S. are on older adults, and it is predicted that this proportion will increase rapidly with the ongoing aging of the US population.[1] Several key components of caring for older adults undergoing colorectal surgery are outlined in the sections below.

Providing Goal-Concordant Care

Older adults undergoing surgery may prioritize outcomes differently than younger patients, for example favoring quality of life over quantity of life. For most older adults, maintaining physical and cognitive function defines a successful medical treatment. In a qualitative study published by Fried and colleagues, physical or cognitive impairment were outcomes that many older adults considered unacceptable results of a medical treatment. For example, if the treatment outcome was survival but with severe functional impairment or cognitive impairment, 74% and 89% percent of these participants, respectively, would not choose treatment.[2] Understanding a patient's health goals can help the surgeon provide goal concordant care.

Previous research has described best communication practices to facilitate goal-concordant care for seriously ill older patients with emergency surgical conditions which can also be applied to both elective and emergency colorectal surgery: (1) formulate prognosis; (2) create a personal connection; (3) disclose information regarding the acute problem (e.g. colorectal cancer, diverticulitis) in the context of the underlying illness; (4) establish a shared understanding of the patient's condition; (5) allow silence and dealing with emotion; (6) describe surgical options (may include palliative options if appropriate); (7) elicit patient's goals and priorities; (8) make a treatment recommendation, and (9) affirm ongoing support for the patient and family.[3]

An example of a clinical scenario in colorectal surgery that would benefit from shared-decision making to align goals of care is a 90 year old female patient with a distal rectal cancer. The patient has mild cognitive impairment and walks with a walker but still lives independently – she values the quality of her life and it is important for her to remain living independently as long as possible. The pros/cons of surgery, treatment with chemoradiation, and observation should all be reviewed. The patient may ultimately choose to pursue chemoradiation as primary treatment for her rectal cancer and not undergo surgery, due to the risk of surgical complications and the need for an ostomy– both of which would limit her ability to live independently.

Screening for Geriatric Vulnerabilities

The goal of preoperative screening is to identify potentially modifiable geriatric vulnerabilities (e.g. components of frailty) that 1) can be optimized prior to surgery, and 2) may impact surgical outcomes and/or surgical decision making. Frailty, or an accumulation of age-related deficits, has been shown to rise in prevalence as age increases, with those 80 years or older at the highest risk of being frail.[4] Postoperative complications have been reported to occur in up to 40% of frail patients undergoing surgery, and recovery from these complications is less likely to be successful due to the reduced ability to endure physiologic derangements.[5]

Geriatric vulnerabilities that contribute to frailty and can be screened for preoperatively are shown in the table below:

Geriatric Vulnerability	Example of a Validated Screening Tool
Impaired cognition	Mini-Cog
Impaired functional status	Activities of Daily Living; Instrumental Activities of Daily Living
Impaired mobility	Timed Up and Go
Malnutrition	Mini-Nutritional Assessment-Short Form

For patients with impaired functional status or mobility, for example, there is some evidence to support optimization with prehabilitation prior to surgery. The [ASCRS clinical practice guidelines for enhanced recovery in colorectal surgery](#) found moderate-quality evidence to support prehabilitation prior to elective colorectal surgery for patients with multiple comorbidities or significant deconditioning.[6]

Optimizing Postoperative Care for the Older Adult through Interdisciplinary Collaboration

Given the unique vulnerabilities of older adults, it is imperative that postoperative care engages disciplines with specific skills in preventing/treating issues that can arise in older patients. Areas for interdisciplinary postoperative care for older adults include the following:

- *Prevent, recognize, and treat postoperative delirium* – delirium is a common complication after surgery and associated with worse outcomes including prolonged length of stay, discharge to skilled nursing facility, death, and readmission.
- *Avoid inappropriate medications for older adults as outlined by the [American Geriatrics Society Beers Criteria](#)* – older adults are at increased risk of adverse drug events and medications that induce postoperative delirium should be avoided.
- *Promote mobility and function* – functional decline is a common complication after surgery and efforts should be made to promote early and frequent mobility in older adults which should consequently help decrease negative outcomes such as falls and pressure ulcers.
- *Maintain nutrition and hydration* – older adults may have difficulty feeding, chewing, or swallowing which impacts their ability to eat and drink; close attention to these issues should also help decrease negative outcomes such as aspiration.

The [American College of Surgeons \(ACS\) Geriatric Surgery Verification Program](#)

The ACS and the American Geriatrics Society partnered to develop guidelines pertinent to the perioperative care of geriatric patients, and this partnership resulted in best practices guidelines published in 2012 and 2016

- Optimal preoperative assessment of the geriatric surgical patient [7]
- Optimal perioperative management of the geriatric patient [8]

More recently, through support from the John A. Hartford Foundation, the ACS formed the Coalition for Quality in Geriatric Surgery. This Coalition was assembled with the intent to systematically improve the surgical care of older adults by establishing a verifiable quality improvement program with standards based on best evidence and focused on what matters most to the individual patient. The Coalition engaged 50+ stakeholder groups representing patients and families, payers, regulatory and advocacy agencies, nursing, and a range of medical and surgical specialties. Ultimately, the Coalition developed

hospital standards based on stakeholder expertise, a review of the literature, pilot testing, and hospital site visits which formed the foundation for the ACS Geriatric Surgery Verification (GSV) Program.

The ACS GSV Program was launched in July 2019 and is currently open for hospital enrollment.[9] The thirty GSV standards encompass all phases of surgical care from preoperative to the transition out of the hospital. The standards focus on the following four areas.

- (1) Goals of Care and Decision Making
- (2) Cognition Screening and Prevention of Postoperative Delirium
- (3) Maintenance of Function and Mobility
- (4) Nutrition and Hydration Optimization

The resource manual to support the rationale behind each of the available standards for geriatric surgery is available here: https://www.facs.org/-/media/files/quality-programs/geriatric/geriatricsv_standards.ashx

Conclusion

Surgical care for the older adult undergoing colorectal surgery is complex and careful attention is needed to align surgical care with the patient's goals, screen for geriatric vulnerabilities, and provide interdisciplinary postoperative care to minimize negative outcomes such as delirium, functional decline, and discharge to a skilled nursing home. The ACS GSV Program is one option to systematically improve care for older adults undergoing surgery.

Selected Literature

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