

Preoperative Assessment of Geriatric Patients



Justin G. Knittel, MD, Troy S. Wildes, MD*

KEYWORDS

- Preoperative • Geriatric • Elderly • Surgery • Frailty • Functional status • Delirium • Nutrition

KEY POINTS

- Geriatric patients, with their increased incidence of comorbidities and deficits seen with aging, require special preoperative consideration.
- Comprehensive preoperative assessment of geriatric patients includes systematic evaluation of comorbidities, neurocognitive function, sensory impairment, substance use, functional status, frailty, nutrition, and medications.
- Delirium represents a common perioperative complication with significant effects on patient outcomes; patient risk should be identified preoperatively.
- Comprehensive assessment is important for risk identification, but the identification of risk factors and deficits should be accompanied by problem-specific management plans to realize improvements in outcome.
- Surgical and other perioperative decisions in the geriatric patient should be goal-oriented in nature, incorporating a realistic assessment of potential benefits and risks in each individual.

INTRODUCTION

Individuals aged 65 years and older currently make up 13% of the US population and are expected to comprise more than 20% of the population by 2030.¹ This demographic utilizes healthcare resources in a disproportionate fashion, accounting for 43% of all hospital days, 32.1% of outpatient procedures, and 35.3% of inpatient procedures.^{2,3} Geriatric patients are similarly over-represented in health care expenditures.² This pattern of health resource utilization is the manifestation of multiple age-related factors including increased prevalence of comorbid conditions, cumulative exposure to diseases, and the increasingly incapacitating effects of new health

Funding Sources: NIA 1UH2AG050312-01 (Dr T.S. Wildes).

Conflicts of Interest: None.

Department of Anesthesiology, Washington University School of Medicine, Campus Box 8054, 660 South Euclid Avenue, St Louis, MO 63110, USA

* Corresponding author.

E-mail address: wildest@anest.wustl.edu

Anesthesiology Clin 34 (2016) 171–183

<http://dx.doi.org/10.1016/j.anclin.2015.10.013>

anesthesiology.theclinics.com

1932-2275/16\$ – see front matter © 2016 Elsevier Inc. All rights reserved.

insults. In addition to well-known comorbidities, age-associated alterations in general function and independence further reduce an individual's resilience. When surgery is performed in aged patients, these vulnerabilities can result in compromised postoperative outcomes, including prolonged hospitalization, skilled nursing facility admission, progressive loss of independence, or death. Such a course is more likely if these risk factors are not recognized and mitigated in the pre- and perioperative period.

Recently published collaborative guidelines from the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) and American Geriatrics Society (AGS) propose a formal framework for routine multidomain preoperative assessment of geriatric patients.¹ For risk estimation, multidomain, procedure-specific tools like the online ACS NSQIP risk calculator increasingly allow preoperative characteristics to be translated into risk estimates for a variety of complications after specific surgeries, ranging from minimally invasive to major.^{4,5} Along with the identification of specific risks, the preoperative evaluation should be used to ensure there is a shared understanding of likely outcomes, to reappraise the patient's care goals, and to ensure that therapeutic decisions are appropriately aligned. For patients who will proceed with surgery, likely complications should be anticipated and modifiable risk factors mitigated in advance.

NEUROCOGNITIVE AND BEHAVIORAL ASSESSMENT

An estimated 14% and 22% of US individuals over the age of 71 have dementia and nondementia cognitive impairment, respectively.⁶ The recent ACS NSQIP-AGS Guidelines for Optimal Preoperative Assessment of the Geriatric Patient include recommendations for routine preoperative neurocognitive assessment to detect such deficits before surgery.¹ Early identification of neurocognitive deficits influences the entire preoperative evaluation, including the reliability of the medical history, perioperative educational needs, and decision making. Additionally, preoperative detection is critical for diagnosing new postoperative deficits and anticipating postoperative complications such as delirium and functional dependency. Although multiple viable cognitive assessment tools exist, the Mini-Cog Assessment is an example of a short (approximately 3 minutes), easily applicable, and well-studied tool that assesses attention and executive function.⁷ In addition to a cognitive assessment, the ACS NSQIP-AGS guidelines strongly recommend preoperative depression and substance abuse screening.¹

CARDIAC EVALUATION

Perioperative cardiac complications such as myocardial infarction are relatively common in adults undergoing major surgery and are associated with subsequent mortality,⁸ but geriatric patients are even more vulnerable to perioperative cardiac events than other age groups.⁹ Risk factors for perioperative cardiac events like diabetes mellitus are more prevalent in the geriatric population, and the duration of exposure to such risk factors is lengthier. Geriatric patients should undergo cardiac risk stratification, should have indicated cardiac tests performed, and should have evidence-based optimization strategies applied prior to surgery.¹⁰ As in nongeriatric patients, preoperative cardiac optimization should center around applying risk-reduction therapies that would be independently indicated outside of the perioperative setting. Preoperative myocardial revascularization is rarely indicated before noncardiac surgery.¹⁰ It may be an even less viable strategy in the geriatric patient, who may be a poor candidate for primary or repeat coronary bypass grafting and whose

Download English Version:

<https://daneshyari.com/en/article/2744480>

Download Persian Version:

<https://daneshyari.com/article/2744480>

[Daneshyari.com](https://daneshyari.com)