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## Time to focus on geriatric critical care



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The growing number of older adults is placing critical care medicine in a precarious position. The ageing demographic is already evident in the ICU, where the "oldest old" (85 years or older) account for more than 20% of admissions. Unfortunately, there is a dearth of evidence to guide the management of critical illness in older adults, according to a review paper to appear in *Annals of the American Thoracic Society*.

Older adults bring with them complexity and vulnerability not present in many of their younger counterparts, the paper explains. Vulnerability factors such as frailty, disability, and comorbidity are more prevalent with age, and increase the risk of adverse outcomes. In some cases, these factors overlap, conferring even greater risk.

Although some intensivists may intuitively adapt their clinical practices to address this complexity, however, as the paper notes, formal training at the nexus of geriatrics and critical care is lacking.

"Therefore, we propose that critical care medicine begin, in earnest, an effort devoted to addressing the needs of our older patients. This emerging field, known as geriatric critical care medicine, addresses the complexities and vulnerabilities of older adults with critical illness by incorporating the principles of geriatric medicine into critical care. It also promotes an ageing focus in basic, clinical, and translational critical care research," write the paper authors Nathan E. Brummel, MD, MSCI, Division of Allergy, Pulmonary, and Critical Care Medicine, Department of Medicine, Vanderbilt University School of Medicine, Nashville, TN, and Lauren E. Ferrante, MD, MHS, Section of Pulmonary and Critical Care Medicine, Department of Internal Medicine, School of Medicine, Yale University, New Haven, CT.

A foundational principle of geriatrics is that of decreased reserve with ageing. In practice, geriatricians manage the interaction of acute illness with ageing-related decreases in reserve by identifying and managing the following:

- Predisposing factors (e.g., frailty) are pre-existing and increase vulnerability to adverse outcomes
- Precipitating factors are acute illnesses or injuries (e.g., septic shock or a fall) that trigger an acute decline
- Perpetuating factors are conditions (e.g., delirium, immobility, or polypharmacy) that prolong illness or hinder recovery.

It is the interaction of predisposing, precipitating, and perpetuating factors that determines survival, development of impairments and disabilities, and recovery from critical illness," the authors say.

The authors highlight important steps needed to integrate the principles of geriatrics into critical medicine. A first step towards integration can be achieved by adapting well-established models from non-ICU settings, such as the Acute Care for Elders (ACE) programme. Through an interdisciplinary team approach, the ACE model emphasises maintenance of physical, cognitive, and mental health function, prevention of hospital-acquired geriatric syndromes (such as delirium), and transition of care planning from admission. Other key steps towards integration include:

- Integration of geriatric concepts into critical care training programmes and clinical practice. Critical care providers must be equipped with the skills to assess and manage geriatric syndromes such as multimorbidity, frailty, delirium, sensory deficits, cognitive impairment, and disability. This can be achieved with in-service training, quality improvement programmes, and educational programmes developed by international critical care societies, among others.
- Continued discovery in basic, translational, and clinical research is needed to enhance our understanding of how ageing interfaces with critical illness and recovery. For example, although the incidence of critical illness increases with age, most basic science research examines critical illness pathology in younger animal models. This could be one reason that drugs effective in animal models of critical illness (e.g., sepsis) have not proven effective in clinical trials.

The authors point out that for many years, the number of geriatricians has been well short of the number needed to care for all older adults. "The time to begin this integration is now," the authors stress. "If we begin only with future trainees, the number of clinicians who possess the skills to care for older adults will be insufficient and enter the workforce too late to meet the rising demand."

Source: [Annals of the American Thoracic Society](#)

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