ATS POSITION STATEMENT 2019-03
Geriatric Trauma Prevention

Background

Geriatric trauma represents the relative influence of injury as an external stressor on the aging body culminating in falls and other injuries that present at trauma systems across the United States (US) (1). As the population ages, and increasing numbers of older adults are living longer, health care providers and hospitals are challenged to address geriatric trauma and associated issues (1). In 2015, costs of fatal and non-fatal falls exceeded $600 million and $30 billion respectively (2). Stakeholders for geriatric trauma include: pre-hospital providers, hospitals, post-acute care facilities, professional organizations, family and in-home caregivers, and the public-at-large. Geriatric trauma imposes a significant financial cost to patients and healthcare systems, and social/emotional implications for patients and families.

High Incidence of Trauma Among Older Persons

Within U.S. hospitals, falls have overtaken all other mechanisms as the leading cause of injury (3). Over 800,000 adults age 65 and older are admitted to hospitals annually for a fall, almost 3 million are treated in emergency departments and released, while another 29 million fall but never seek medical attention (8). As humans age, the body experiences a slow and gradual loss of the ability to generate energy to sustain itself, characterized by functional decline and other age-related chronic conditions (4). Geriatric trauma encompasses the confluence of aging-related decline, including risk of injury, and the physiologic response to maintain homeostasis during and after injury (1). Frailty is a state of vulnerability to internal and external stressors, caused by biological changes at cellular and subcellular levels that often leads to falls and increasing complexity recovering from illness or injury (5,6). Among geriatric trauma patients, frailty is a primary predictor of poor outcomes, including admission to skilled nursing facilities, functional decline, and mortality up to 1-year post-injury (7,8). Progressive loss of strength and energy contributes to incompetence of the axial skeleton, osteoporosis, stress fractures, and a declining ability to recover from injury (1). In 2016 29,668 adults died as a result of a fall (9). Family caregivers are often the mainstay of support for older adults with chronic, disabling conditions, yet their needs for recognition, information and support frequently go unnoticed and unacknowledged.
Injury prevention for older adults must be aimed at all levels of prevention, including primary, secondary and tertiary. **Primary prevention** averts injury before it occurs and is paramount to avoid the trajectory of rapid decline that often accompanies geriatric trauma. **Secondary prevention** reduces the impact of injury after it has occurred; few studies address specific interventions aimed at secondary prevention. **Tertiary prevention** acknowledges the impact of injury and aims to improve health span, quality of life, and readiness for end-of-life.

**ATS believes that injury prevention for older adults is crucial and Trauma Centers should adopt some or all of the following measures in each of the following categories:**

**Primary Prevention**
- Use trauma registry, emergency department, public health and other local injury surveillance data sources to collect fall demography data to enhance injury prevention efforts by identifying high-risk geographic areas and geriatric population cohorts (10).
- Conduct annual frailty screening and fall risk assessments using evidence-based tools as initial steps toward effective fall prevention (11). Screening should include the predominant risk factors: maternal history of a hip fracture, gait and balance instability, self-reported falls, previous fracture, low body weight, and self-report of fair or poor health (12, 13).
- Encourage the use of evidence-based programs and multi-factorial interventions focused on strength, balance, flexibility, and endurance. (e.g., A Matter of Balance, Stepping On, Silver Sneakers, Stay Active and Independent for Life (SAIL), Tai Ji Quan: Moving for Better Balance, and Healthy Steps for Older Adults) for older adults to reduce the incidence of falls (14).
- Driving Safety programs to optimize older drivers’ safety and to promote continuous safe driving (15).
- Recommend the National Council of Aging (NCOA) as an important resource for identifying effective community-based programs (14).
- Provide proven fall prevention strategies including:
  - Routine risk assessment
  - Review and modification of medications
  - Home hazard screening and modification
  - Vitamin D supplementation

**Secondary Prevention**
Teach and use effective communication and decision aids (e.g., https://www.ncoa.org/center-for-healthy-aging/falls-resource-center/falls-prevention-tools-and-resources/falls-prevention-older-adults-caregivers/) for older adults to improve knowledge, increase risk perception, decrease decisional conflict, and enhance participation in health care decision-making (16,17).

Ongoing frailty screening and fall risk assessment (11,12,13) with referral to specialists (vision, hearing) as appropriate.

Medication review during in-patient phase.

Individualized discharge planning, inclusive of recommendations to prevent repeat falls through utilization of community resources (i.e., physical therapy, strength and balance training, nutrition, social services, home safety inspection).

Include the care of frail, complex, and severely ill older adults (18) in efforts to train providers in geriatric-focused content.

Increase public awareness and remind patients and family caregivers that frailty and dying are normal final stages of life (19-21).

Tertiary Prevention

Encourage trauma-specific programs such as GEMS (22) and G-60 (23) which are aimed at optimizing recovery of older adults after injury using aggressive team-based approaches.

Provide support for family caregivers of older adults directly or by making referrals from the local community. Support should include assessing needs and providing services that will minimize health, economic and social challenges of the family caregivers (24).

Strive to reach the goal of reducing falls in older adults by 25% nationally.

Support future research targeted towards developing, testing, and implementing innovative caregiver support strategies (25).

References


