

Editorial on “Comprehensive geriatric care for patients with hip fractures: a prospective, randomized, controlled trial” published in *The Lancet* on April 25th, 2015

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Abstract: A third of elderly adults fall every year, many leading to hip fractures with a 24% mortality rate just within the first year. As a growing number of the US population approaches old age, these hip fractures are expected to cost the US over 25 billion annually. In the near future, physicians will need to not only improve the treatment for a larger patient population but also reduce the medical costs associated. The authors in this paper sought to determine whether specialized geriatric care positively impacted patient outcome compared to standard orthopaedic care for hip fractures. The study found that geriatric care significantly increased patient mobility within 4 months after hip fracture and will likely reduce overall medical costs. Similar studies have shown promising results as well. Moving forward, geriatric fracture programs need more prospective randomized trials to determine the effectiveness of these programs to increase patient quality while also reducing overall medical costs. This study in correlation with others further demonstrates the importance and need of specialized geriatric programs in the US.

Keywords: Hip fracture; geriatric fracture program; comorbidity; hospital costs

Submitted Jul 06, 2015. Accepted for publication Jul 07, 2015.

doi: 10.3978/j.issn.2305-5839.2015.07.06

View this article at: <http://dx.doi.org/10.3978/j.issn.2305-5839.2015.07.06>

One in three adults over the age of 65 falls every year, which is the leading cause of hospital trauma admissions (1). Hip fractures alone have a 24% mortality rate within the first year, many never regaining independence due to immobility (2). These fractures are projected to grow to over 3 million by 2025, a 50% increase expected to cost the United States over 25 billion annually (3). With the US government currently 18 trillion dollars in debt and a growing number of Baby Boomers approaching old age, many medical teams are seeking tailored treatment programs to increase patient quality of care and in turn lower costs due to postoperative complications. A proposed comprehensive geriatric program focuses on treating hip fractures along with comorbidities associated with geriatric patients and is intended to increase patient mobility and reduce overall medical costs associated with complications after surgery.

In this Norwegian study, the medical team focused on geriatric care *vs.* standard orthopaedic care for patients

with hip fractures. Standard treatment consisted of fracture fixation by an orthopaedic surgical team and then transfer to the orthopaedic ward for post-operative care. Geriatric care treatment also consisted of fracture fixation by an orthopaedic surgical team; however, the patient was transferred to the geriatric ward for post-operative care, which focused on early mobilization and an overall medical assessment to include comorbidity treatment. The main measurement of patient outcome was mobility. After 4 months, they found those who received comprehensive geriatric care had significantly more mobility ($P=0.010$) than those who received standard care. They also found that comprehensive geriatric care is 99% more likely to be cost-effective than standard care (4). This study effectively shows that a geriatric program not only improves geriatric patient outcome but also significantly reduces costs associated with hip fractures.

In 2009, a similar study was conducted on the impact of a

geriatric fracture center in the United States. Complication rates for patients in the geriatric fracture center (31%) were much lower than patients under standard care (46%) (5), arguably leading to a shorter length of stay and lower costs. In 2012, a study showed that readmission due to complications also dropped 11% for those undergoing geriatric care (6). Concerning costs, one study showed that the geriatric fracture program saved more than \$18,000 per fracture in hospital costs (7). However, there are limitations to a geriatric fracture program. In the Norwegian study, patients and staff were made aware of their treatment for ethical reasons. Also, the study was conducted at one site making reproducibility questionable as patient outcomes may vary due to cultural and socioeconomic status. Not all hospitals have access or the resources to implement such a program (7). There is also no standardized geriatric fracture program in the United States to follow, and there is a lack of physician leadership and case managers for programs at individual hospitals (8).

A geriatric fracture program requires a team of medical experts from various departments and physician leaders. Prospective randomized trials will be needed to further demonstrate the success and practicality of such programs. However, this study in conjunction with others shows that these programs increase the quality of patient care while also decreasing hospital costs. In a time when healthcare is moving towards bundled payments, efficiency and quality of patient care is impertinent to maintaining lower hospital costs as well as caring for the aging population in the United States.

Acknowledgements

None.

Footnote

Provenance: This is a Guest Editorial commissioned by the

Section Editor Hongfei Shi, MD, PhD, (Associate Chief Surgeon, Department of Orthopaedics, Nanjing Drum Tower Hospital, Nanjing, China).

Conflicts of Interest: The authors have no conflicts of interest to declare.

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Cite this article as: Dodd AC, Sethi MK. Editorial on "Comprehensive geriatric care for patients with hip fractures: a prospective, randomized, controlled trial" published in *The Lancet* on April 25th, 2015. *Ann Transl Med* 2015;3(15):216. doi: 10.3978/j.issn.2305-5839.2015.07.06