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CORR Insights®: Dedicated Perioperative Hip Fracture Comanagement Programs are Cost-effective in High-volume Centers: An Economic Analysis

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Where Are We Now?

Hip fractures are common, and treating patients with them is challenging because the

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patients often are older and medically complicated. New payment models initiated by the Patient Protection and Affordable Care Act (which encourages bundled payments and the formation of accountable care organizations) focuses on high-cost procedures [2, 7]. The systems used to provide care for patients with diverse diagnoses, including hip fracture, also vary; this would appear to offer a meaningful opportunity to improve both outcomes and costs [5]. With total treatment costs estimated at more than USD 12 billion, hip fracture care in the United States certainly represents a worthwhile topic for further evaluation.

Swart and colleagues performed an economic analysis to determine the cost-effectiveness of a comanaged

model of care for geriatric patients with hip fracture. The prevalent “traditional” model of hip fracture care in the United States is one in which the medical physician provides preoperative clearance with variable postoperative followup care for the patient with a hip fracture on the orthopaedic surgical service [5, 9]. A small percentage of hospitals have adopted an organized medical comanagement model to improve both patient reported outcomes and process measures for patients with a hip fracture. Although the topic has been reasonably well-studied, most reports to this point involve retrospective analyses that may be subject to various types of bias [1–4]. While some studies have looked at the economics of these models, and although these reports generally suggest the models are cost-effective, these analyses only represent the study of program performance at individual hospitals [2, 7, 8]. As such, the value of the comanaged hip fracture programs remains controversial.

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Where Do We Need To Go?

Swart and colleagues have created a well-designed economic model to determine the annual volume of cases required to remain cost-neutral. In their study, the authors also performed an economic analysis to determine whether such comanaged programs for hip fracture care were cost-effective. Additionally, they evaluated whether universal or risk-stratified comanagement was more cost-effective. The ideal patient population for a comanagement strategy has yet to be determined.

After studying this economic benefit model, the major gap remaining in our knowledge is its real-world applicability in different regions of the United States. The model is based on the published literature of the comanagement model of hip fracture care. There are varying degrees of comanagement in use in the United States. Additionally, some programs are more cost-effective because they have implemented additional levels of sophistication including standard patient care protocols, standardized order sets, protocol driven operative treatment, and have used lean business processes to remove waste from their programs [1, 2, 6]. It would be essential to test the assumptions and conclusions reached in this paper to help hospital systems understand the

benefits in terms of patient care and economic outcomes of the comanagement model for hip fractures. It would also be helpful to test the conclusions reached by the authors on the number of patients needed to treat in a program to reach an economic benefit. This would further inform hospital systems when considering adoption of the comanagement model.

How Do We Get There?

Ideally, performing large-scale prospective studies on programs with dedicated medical comanagement would help determine the efficacy and cost-effectiveness for such programs. Because most published studies show reductions in complications and mortality, it may be unethical to randomize patients into a traditional care model versus a comanagement model. Instead, prospective comparison of similar cohorts of hospitals who have an organized comanagement program to compare against those with traditional care may be a reasonable alternative. A large-scale implementation of medical comanagement of patients with hip fracture in the United States will require definitive studies demonstrating the value (outcomes/costs) of these programs. Achieving this may also require financial incentives from payers to

persuade hospitals to adopt this model. In the United Kingdom, this approach is known as the Best Practice Tariff for hip fracture care, and it has been proven to be quite effective [10].

Clearly, improvement in our systems of care is a requirement in order to achieve a better quality of care at an affordable cost—which is an essential aspect of the payment reform brought about by the Patient Protection and Affordable Care Act.

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