



## White Paper

### Proposed Changes to Federal Payment Models and Performance Measures for Proximal Femoral Fracture Treatment in Elderly

The social and economic impact of proximal femoral fractures in the elderly is a significant healthcare policy issue in North America. In the United States alone in 2010, there were approximately 258,000 proximal femoral fractures costing the healthcare system between \$17 and \$20 billion. Proximal femoral fractures were so prevalent in 2011 that Medicare reported hip fracture treatment as the 13<sup>th</sup> most expensive diagnosis<sup>1</sup>. The frequency of these injuries is expected to increase in upcoming years reaching 289,000 annual cases by 2030.

Throughout the United States, the hospital care for treatment of hip fractures is currently reimbursed through the DRG system and for physicians through Medicare fee-for-service. In an attempt to control cost, the Centers for Medicare and Medicaid Services (CMS) introduced two alternative payment models (APM) that address the treatment of proximal femoral fractures. The Bundled Payment for Care Improvement (BPCI) is a voluntary initiative that offers four different bundled care models covering a multitude of diseases. BPCI offers a bundled package for DRGs 480, 481 and 482 (Hip and Femur Procedures Except Major Joint). This program has met varying levels of success across the country.

The second APM was introduced on 1 April 2016. The Comprehensive Care for Joint Replacement (CJR) initiative was established as a mandatory bundled care package that was implemented in 67 Metropolitan Service Areas (MSA) across the United States. Although focusing mostly on elective total joint arthroplasty, this APM included patients with proximal femoral fractures that were treated with arthroplasty (total hip replacement and hemi-arthroplasty). In response to the problems associated with only reporting hip fracture patients treated with arthroplasty, CMS introduced the Surgical Hip and Femur Fracture Treatment (SHFFT) APM. The SHFFT bundle will begin in 1 July 2017. Based on the success of these bundled packages, CMS is likely to expand CJR and SHFFT to other MSAs, and the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) demands that advanced APM are made available to physicians.

**The Orthopaedic Trauma Association (OTA) has concerns regarding placing the treatment of proximal femoral fractures in the elderly into APMs. These include the issues with bundling these patients, the use of registries and the overall lack of meaningful Performance Measures (PM).**

#### 1. Is it Appropriate to Put Patients with Proximal Femoral Fractures in a Bundle?

When bundled payments were first introduced, many believed that total joint arthroplasty of the hip and knee would be among the most ideal orthopaedic procedures to trial in this program. Because of the relatively consistent course in patients treated with total joint arthroplasty and the relatively homogenous characteristics of this patient population, this procedure is more conducive to this type of APM than many other surgical treatments. The nearly purely elective and selective aspect of these procedures allows clinicians to exert some control and decision-making in proceed with invasive intervention. Exceptions to the bundle (complex revisions or younger patients rightfully demanding more expensive components) are easy to build into the system to protect the availability access to care for complex patients.

The treatment of elderly patients with proximal femoral fractures is far more difficult to bundle. The population presenting with these injuries is extremely heterogeneous by comparison, and many are significantly ill presenting with advanced comorbidities. These patients obviously lack the pre-operative workup, education and preparation afforded to elective arthroplasty patients. Their socioeconomic issues are often far more complicated. Furthermore, the need to rapidly assess, medically optimize, and stabilize these patients (typically within 24 hours to minimize the morbidity and mortality associated with proximal femur fractures) limits the ability of the provider to go through the adequate preoperative preparation steps that benefit elective arthroplasty patients.

If CMS wants to successfully bundle the treatment of elderly patients with proximal femoral fractures, several issues should be addressed:

- a. Clear exclusion criteria should be established so that there are no disincentives for orthopaedic surgeons to care for complex patients.
- b. Target prices for this form of treatment should be carefully determined realizing that there is less ability to reduce cost compared to elective total joint surgery.
- c. Performance Measures to assess quality of care must be specific to proximal femoral fractures and not extrapolated from elective arthroplasty.
- d. Patients with intertrochanteric hip fractures must be included (and recognizing that these patients do not receive an arthroplasty, arthroplasty specific metrics will not be useful)

## 2. Total Joint Arthroplasty Performance Measures are not Appropriate for Assessing Quality in Patients With Proximal Femoral Fractures

The SHFFT bundle describes specific performance measures that orthopaedic surgeons should report when treating patients with proximal femoral fractures. These performance measures are:

- a. THA/TKA Complications: Hospital-Level Risk-Standardized Complication Rate (RSCR) Following Elective Primary Total Hip Arthroplasty (THA) and/or Total Knee Arthroplasty (TKA) (National Quality Forum [NQF] #1550).

This performance measure requires the orthopaedic surgeon to report the following complications after stabilizing the proximal femoral fracture:

1. Acute myocardial infarction;
2. Pneumonia, or sepsis/septicemia within 7 days of admission;
3. Surgical site bleeding, pulmonary embolism or death within 30 days of admission;
4. Mechanical complications, periprosthetic joint infection, or wound infection within 90 days of admission.

In comparison to elective arthroplasty, following falls, hip fracture and reparative surgery for hip fractures, the complications of acute myocardial infarction, pneumonia, sepsis, pulmonary embolism and death are more common in frail elderly whose chronic medical problems are exacerbated by the injury and surgery. Avoidance of these frequent medical events is largely outside of the control of orthopaedic surgeons, and this measure will be a disincentive for physicians to care for complex patients. The hip fracture population has been shown to have higher rates of these complications than the elective arthroplasty population, so the inherent increased risk of these events must be factored in to the performance analysis.

- b. Hospital Consumer Assessment of Healthcare Providers and Systems (HCAPHS) Survey (NQF #0166).

The HCAPHS survey assesses the patient's experience in the hospital. This is neither a measure of outcome or surgical quality and value. Since many elderly patients with proximal femoral fractures cannot complete the survey, this task is often relegated to family members who may not be able to adequately assess the experience or be informed of the nuances of care in the manner that an elective arthroplasty and their family would have time to consider all of the ramifications of an event.

- c. Total Hip Arthroplasty (THA)/Total Knee Arthroplasty (TKA) voluntary patient-reported outcome (PRO) and limited risk variable data submission (Patient-reported outcomes and limited risk variable data following elective primary THA/TKA).

PROs are challenging to collect from elderly patients with proximal femoral fractures, and there is no way to assess the preinjury status of the patient. Valid fracture specific performance measures may provide better methods to assess quality of care in this population.

Currently available Performance Measures are far from optimal when assessing quality in the treatment of patients with proximal femoral fractures.

### 3. Hip Fracture Registries

To effectively report performance measures for patient with proximal femoral fractures, effective fracture registries must be developed. Currently there are no widely accepted and utilized registries for this injury pattern. An ideal registry would have the following characteristics:

- a. Easily accessible by orthopaedic surgeons and their staff
- b. Automatic transfer of data from EHR systems into the registry
- c. Reasonable cost
- d. Efficient reporting to CMS

### 4. Develop Appropriate Performance Measures for Patients with Proximal Femoral Fractures

The orthopaedic surgeon community must develop Performance Measures that will effectively report quality measures to CMS and other organizations. These Performance Measures should report outcomes that are significant to patients and orthopaedic surgeons. The measures should demonstrate the value of the care provided in that cost, access and outcome are reported. The OTA supports the current efforts in the American Academy of Orthopaedic Surgeons to develop these measures.

#### References

1. Brauer CA, Coca-Perrillon M, Cutler DM, Rosen AB: Incidence and mortality of hip fractures in the United States. *JAMA* 2009; 302(14):1573-1579.