

It's Time for CMS to Utilize Functional Assessment as a Key Quality Component

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In the large analysis of 416,604 postoperative unilateral hip fractures done by Gerrard et al, functional assessment using the Fitness Index Measure—a proxy measure for burden of care—demonstrates high predictive value for unilateral hip fracture readmissions compared with conventional risk stratification methods being used to predict expected readmissions.¹ This study was retrospectively conducted, with powerful improvements of the predictive C statistic compared with Basic predictive methods used by CMS at 3 days, 7 days, and 30 days post discharge. The study was designed to detect a difference of ± 0.05 C statistic, showing robust statistical power with a large sample size. The study is of great clinical and economic interest, as unilateral hip fracture readmissions are now being used as a core measure of inpatient quality as a part of the CMS Value-Based Purchasing Program (VPP). Further pilot studies demonstrating the value of functional assessment are indicated for the other conditions measured in the VPP, such as congestive heart failure, pneumonia, and acute myocardial infarction.

The current content of risk stratification instruments used by CMS consists of certain unmodifiable factors (eg, age, gender) in addition to medical comorbidities, which may be minimally modifiable. The exception within CMS is the Medicare Advantage program. Medicare Advantage plans require a Health Outcome Survey to be conducted annually to assess plan performance. A plan's star rating and bonuses are both based on these data, which incorporate functional outcomes. Using validated instruments of functional assessment throughout CMS would hold the promise of focusing efforts on modifiable outcomes, such as improving fitness or positive patient perceptions of health and well-being. These validated patient-reported outcome (PRO) measures have the potential for serving as both measures of quality outcomes in their own right, and for predicting other objective health measurements, such as hospital readmissions.

ABSTRACT

This editorial reviews the recently published study (*AJMC* April) by Gerrard et al, titled "Functional Status and Readmissions in Unilateral Hip Fractures," which analyzes the statistical prediction model of the Fitness Index Measure for hospital readmission in unilateral hip fractures, and discusses why functional assessment should be used in evaluating other conditions. The current method of stratifying risk for Core Measure Conditions used by CMS to predict hospital readmissions utilizes a largely non-modifiable formula of age, gender, and medical comorbidities. Numerous recent studies have shown that validated functional assessment can be a powerful statistical predictor of hospital readmission. The author makes the argument for CMS to utilize functional assessment to predict hospital readmissions as a part of its Value-Based Purchasing Program.

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Fortunately, there is a repository of evidence-based research on PRO instruments. The National Institutes of Health (NIH) formed a cooperative group funded under the NIH Roadmap for Medical Research Initiative to reengineer the clinical research enterprise. This initiative—the Patient-Reported Outcomes Measurement Information System (PROMIS)—aims to revolutionize the way PRO tools are selected and employed in clinical research and practice evaluation. Further work was done by the National Quality Forum (NQF) in 2013 validating PROs as Performance Measures (PMs). One of the directions for NQF-endorsed PMs includes “conducting measurement across longitudinal, patient-focused episodes including outcome measures; process measures with direct evidence of impact on desired outcomes; appropriateness measures; and cost/resource use measures coupled with quality measures,” as noted in the Composite Performance Measure Evaluation Guidance from the National Quality Forum.² Furthermore, key PRO domains include health-related quality of life, including functional status and symptoms as well as burden of symptoms, such as pain. NQF recommends the use of PROs as PMs given that the conceptual model is documented; its reliability, validity, and interpretability of scores; cultural and language adaptations; and capability for integration with the electronic health record.

Another valid predictor of health outcomes is health literacy. In a study of Medicare managed care patients,³ functional health literacy was found to be the most powerful predictor of hospital admission in a multivariate model using Cox proportional hazard modeling (relative risk ratio, 1.43; 95% CI, 1.24-1.65), compared with age, gender, race, education, income, smoking, and alcohol use. Although health literacy is not directly attributable to provider performance, specific efforts to communicate with patients at their respective literacy levels has been demonstrated to improve patient compliance with treatment measures as a result of improved understanding.

Through the use of validated functional assessments, the provider is presented with an opportunity to engage and educate the patient and to measure their longitudinal progress as they transition through the care environment. Functional assessments may also provide a measurement for the allocation and prioritization of healthcare resources in certain higher-risk patients, or high utilizers. Further prospective analysis of clinical outcomes, cost-ef-

Take-Away Points

The need to apply useful data to predict health outcomes and apply effective interventions has never been greater or more feasible. Whether it is to decrease health-care costs or to improve quality of life, the application of such data is broad-reaching. The Patient-Reported Outcomes Measurement Information System database is the information epicenter for validated objective functional measurements. It is time for CMS to examine the usefulness of functional assessment in medical conditions other than hip fracture as a risk stratification tool.

fectiveness data, and quality-of-life measures are required to define the role of PROs as a part of the CMS VPP, and as an integral part of accountable care organization population health tools. The use of PROs contributes to the healthcare system's being truly “person-centered.” Indeed, the NQF report noted that as patients become more engaged in their care by providing systematic feedback on outcomes such as functional status, this flow of information must be bidirectional and timely.

Certainly, it is time for CMS to lead the way in the larger realm of population health by integrating functional assessment as a part of the performance measures to be used in accountability applications such as the VPP. There is a vast body of research available, thanks to the work of PROMIS and the NIH Roadmap for Medical Research. Patients, providers, and payers all stand to win with this initiative.

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