

**TO:** NQF Endocrine Steering Committee

**FROM:** Erin Giovannetti, National Committee on Quality Assurance

**DATE:** June 6, 2014

**RE:** Alignment of Osteoporosis Measures

There are multiple NQF-endorsed measures of osteoporosis prevention and management (See Table 1). Between September 2013 and June 2014, NCQA completed a substantial re-evaluation of the four NCQA owned measures of osteoporosis screening and management. As part of this effort we undertook a comprehensive harmonization exercise to align several of the measures where possible given the different measure focus, methods of data collection and level of accountability. This memo outlines the results of this harmonization exercise and additional considerations for harmonization with two hospital-based measures of osteoporosis management that are under consideration for endorsement.

**Table 1: Related Measures of Osteoporosis**

|  |  |  |  |
| --- | --- | --- | --- |
| **NQF Number** | **Title** | **Steward** | **Level of Accountability** |
| 0037 | Osteoporosis Testing in Older Women | NCQA | Health Plan |
| 0046 | Screening for Osteoporosis for Women 65-85 Years of Age | NCQA | Physician |
| 0045 | Osteoporosis: Communication with the Physician or Clinician Managing On-going Care Post Fracture for Men and Women Aged 50 Years and Older | NCQA | Physician |
| 0053 | Osteoporosis Management in Women Who Had a Fracture | NCQA | Health Plan/Physician |
| 2416 | Laboratory Investigation for Secondary Causes of Fracture | The Joint Commission | Facility |
| 2417 | Risk Assessment/Treatment After Fracture | The Joint Commission | Facility |

The osteoporosis screening and management measures are focused on prevention of osteoporosis-related fractures over a continuum of care (see Figure 1). The measures start by focusing on screening for osteoporosis in the general population (#0037, #0046). The next measures focus on individuals who experienced a fragility fracture and are at risk of future osteoporosis-related fractures. Usually, although not always, fragility fractures present initially in the Emergency Department or Hospital. Guidelines recommend individuals with fragility fractures should be evaluated for osteoporosis or treated for osteoporosis (#0053, #2417). Evaluation for the secondary cause of the fracture may also occur (#2416). This evaluation and treatment can happen short term in the inpatient setting but is generally managed long term in the outpatient setting. Therefore it is critical for inpatient providers to coordinate with outpatient providers to ensure continuity of care (#0045).

**Figure 1: Continuum of Care for Osteoporosis**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Screening in general population  (#0037, #0046) | → | Fragility fracture occurs | → | Coordination between inpatient and outpatient providers (#0045) |
|  |  |  | → | Exploration for secondary causes of fracture (#2416) |
|  |  |  | → | Screening or Treatment for Osteoporosis (#0053/#2417) |

Using this continuum of care for osteoporosis as our framework we examined harmonization for measures that focused on the same population and the same step in the continuum of care. Below we describe the two sets of measures that fit this framework (measures of screening for osteoporosis in the general population and measures for screening or treatment of osteoporosis post fracture). For each set we describe the similarities and differences between the measures and provide an explanation of the variation between the measures. This harmonization analysis does not include measures #0045 or #2416 because we consider these to be related but focused on different steps in the continuum of care.

**Table 2: Measures of Screening for Osteoporosis in General Population**

|  |  |  |
| --- | --- | --- |
| **NQF #** | 0037 | 0046 |
| **Title** | Osteoporosis Testing in Older Women | Screening for Osteoporosis for Women 65-85 Years of Age |
| **Level of Accountability** | Health Plan | Physician |
| **Data Source** | Survey | Medical Record |
| **Denominator** | Women age 65-85 | Women age 65-85 with an encounter with and eligible provider |
| **Numerator** | Ever received a bone mineral density test of the hip or spine | Ever received a DXA of hip or spine |
| **Exclusions** |  | Diagnosis of osteoporosis at the time of encounter |

Explanation of Variation between measures:

* Denominator: The eligible population for both measures is women age 65-85 years of age. Measure 0046 additionally narrows the eligible population to women who had an encounter with an eligible provider in order to allow for provider level comparisons.
* Numerator: Because measure 0037 is a survey measure, the term “bone mineral density test” is used to refer to “dual energy x-ray absorptiometry test.” This term is used because cognitive testing indicated the term was more understandable to survey respondents. We have harmonized the two measures by ensuring both measures only capture testing done of the hip or spine; however 0046 is able to capture more specificity about the type of test done due to the data source used for measure collection.
* Exclusions: An exclusion for diagnosis of osteoporosis is not feasible in the survey measure due to the timing of data collection.

**Table 3: Measures of Screening/Treatment Post Fracture**

|  |  |  |
| --- | --- | --- |
| **NQF #** | 0053 | 2417 |
| **Title** | Osteoporosis Management in Women Who Had a Fracture | Risk Assessment/Treatment After Fracture |
| **Level of Accountability** | Health Plan/Physician | Hospital |
| **Denominator** | Women 50-85 with any fracture other than face, finger, toe, head treated for fracture | Men and Women 50+ discharged from the hospital for a vertebral, hip or “other” fragility fracture |
| **Numerator** | Bone mineral density test performed or prescription for a pharmacologic treatment within 6 months of fracture | DXA ordered or performed, OR a prescription for a pharmacologic treatment, OR fracture liaison service OR other fracture risk assessment method |
| **Exclusions** | Bone mineral density test in last 24 months  Pharmacologic treatment in the past 12 months | “Comfort only measures”  Enrollment in clinical trial  Currently on a pharmacologic treatment  Bone mineral density test in the past 12 months  Patient Expired |

Explanation of Variation between measures:

* Denominator: Both measures focus on a population who experienced a fracture. Because 2417 is a hospital level measure, it focuses exclusively on the population that was hospitalized whereas 0053 includes a broader denominator of all fractures regardless of hospitalization. The other main differences between the denominators for the measures are listed below.
  + Gender: Measure 0053 is focused on women alone whereas 2417 focuses on both men and women. The rationale for focusing 0053 on women is due to different guidelines for men and women regarding management post fracture. The Endocrine Society Guidelines for Treatment of Osteoporosis in Men recommend screening or treatment after fracture of the hip or spine. The pharmacologic treatments that are recommended for men are also different from those recommended for women. Therefore NCQA has decided to use two gender specific measures of osteoporosis management; the measure specific to treatment and screening in at risk men is currently under development.
  + Age: Measure 0053 is focused on women 50-85 whereas 2417 focuses on all women age 50 and older. The rationale for focusing 0053 on women under age 85 was a concern about too-aggressive treatment in women near the end of their life who may have multiple competing comorbidities. The intent of the upper age limit is to focus the measure on the population most likely to benefit from screening and treatment of osteoporosis.
  + Fracture Type: Cursory inspection of the codes associated with 2417 suggest both measures include similar types of fractures including axial and major bones of the limbs. In measure 0053 we do not refer to these fractures as fragility because we cannot identify from claims alone if the fracture was fragility related or related to other trauma.
* Numerator: Both measures focus on screening or treatment after a fracture. Because 2417 is a hospital level measure, it focuses exclusively on services provided in the hospital whereas 0053 includes all services both inpatient and outpatient. The other main differences between the numerators for the two measures are listed below.
  + Bone Mineral Density Testing: Measure 0053 includes multiple types of bone mineral density tests to screen for secondary fracture risk, whereas measure 2417 looks only for DXA testing and “Other fracture risk assessment” (i.e. testing done in the hospital setting using ICD 9 Procedure Code 88.98). Measure 0053 includes these tests as well as others that are often done in the outpatient setting. The rationale for including a broader type of test in 0053 is twofold. First multiple types of tests can be used to predict future fracture risk, some of them portable, which is important for individuals who experience fractures in the nursing home setting and have mobility limitations. Second, the tests in 0053 are aligned with the CMS national coverage decisions bone mineral density tests to screen for osteoporosis.
  + Treatment: Both measures include the same pharmacologic treatments
  + Fracture Liaison Service: Measure 0053 does not include fracture liaison services. We believe the core components of fracture liaison services (treatment, fracture risk assessment and coordination with outpatient providers) are already included in this measure and the communication measure (#0045).
* Exclusions:
  + Bone mineral density test: Measure 0053 excludes individuals who had a bone mineral density test in the past 24 months whereas 2417 excludes individuals who had a bone mineral density test in the last 12 months. The rationale for the 24 month look-back period in measure 0053 is evidence that testing less than 2 years apart shows little change in bone mineral density and CMS reimbursement policy to only reimburse for tests every 24 months.
  + Comfort care measure and clinical trial participation: These exclusions are included in 2417 but cannot be identified from administrative claims and are therefore not feasible to include in 0053.
  + Currently on pharmacologic treatment: Both measures exclude individuals currently on pharmacologic treatment for osteoporosis. The rationale for the 12 month look back period for 0053 is to identify certain mediations (i.e. zoldronic acid) that are given once every 12 months.