

# NATIONAL QUALITY FORUM

## Measure Submission and Evaluation Worksheet 5.0

This form contains the information submitted by measure developers/stewards, organized according to NQF's measure evaluation criteria and process. The evaluation criteria, evaluation guidance documents, and a blank online submission form are available on the [submitting standards web page](#).

<b>NQF #:</b> 0101 <b>NQF Project:</b> Patient Safety Measures-Complications Project
(for Endorsement Maintenance Review) <b>Original Endorsement Date:</b> May 01, 2007 <b>Most Recent Endorsement Date:</b> May 01, 2007 <b>Last Updated Date:</b> Jul 09, 2012
<b>BRIEF MEASURE INFORMATION</b>
<b>De.1 Measure Title:</b> Falls: Screening, Risk-Assessment, and Plan of Care to Prevent Future Falls
<b>Co.1.1 Measure Steward:</b> National Committee for Quality Assurance
<b>De.2 Brief Description of Measure:</b> This is a clinical process measure that assesses falls prevention in older adults. The measure has three rates:  A) Screening for Future Fall Risk: Percentage of patients aged 65 years and older who were screened for fall risk (2 or more falls in the past year or any fall with injury in the past year) at least once within 12 months  B) Multifactorial Risk Assessment for Falls: Percentage of patients aged 65 years and older with a history of falls who had a risk assessment for falls completed within 12 months  C) Plan of Care to Prevent Future Falls: Percentage of patients aged 65 years and older with a history of falls who had a plan of care for falls documented within 12 months
<b>2a.1 Numerator Statement:</b> This measure has three rates. The numerators for the three rates are as follows:  A) Screening for Future Fall Risk: Patients who were screened for future fall* risk** at last once within 12 months B) Multifactorial Falls Risk Assessment: Patients at risk* of future fall** who had a multifactorial risk assessment*** for falls completed within 12 months C) Plan of Care to Prevent Future Falls: Patients at risk* of future fall** with a plan of care**** for falls prevention documented within 12 months.  *A fall is defined as a sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of a sudden onset of paralysis, epileptic seizure, or overwhelming external force.  **Risk of future falls is defined as having had had 2 or more falls in the past year or any fall with injury in the past year.  ***Risk assessment is defined as at a minimum comprised of balance/gait AND one or more of the following: postural blood pressure, vision, home fall hazards, and documentation on whether medications

are a contributing factor or not to falls within the past 12 months.

\*\*\*Plan of care is defined as at a minimum consideration of appropriate assistance device AND balance, strength and gait training.

**2a1.4 Denominator Statement:** A) Screening for Future Fall Risk: All patients aged 65 years and older seen by an eligible provider in the past year.

B & C) Multifactorial Falls Risk Assessment & Plan of Care to Prevent Future Falls: All patients aged 65 years and older with a history of falls (history of falls is defined as 2 or more falls in the past year or any fall with injury in the past year) seen by an eligible provider in the past year.

**2a1.8 Denominator Exclusions:** Patients who have documentation of medical reason(s) for not screening for future fall risk, undergoing a risk-assessment or having a plan of care (e.g., patient is not ambulatory) are considered exclusion to this measure.

**1.1 Measure Type:** Process

**2a1. 25-26 Data Source:** Administrative claims

**2a1.33 Level of Analysis:** Clinician : Group/Practice, Clinician : Individual, Clinician : Team

**1.2-1.4 Is this measure paired with another measure?** No

**De.3 If included in a composite, please identify the composite measure (title and NQF number if endorsed):**

N/A

#### STAFF NOTES (issues or questions regarding any criteria)

**Comments on Conditions for Consideration:**

**Is the measure untested? Yes  No**  If untested, explain how it meets criteria for consideration for time-limited endorsement:

**1a. Specific national health goal/priority identified by DHHS or NPP addressed by the measure (check De.5):**

**5. Similar/related endorsed or submitted measures (check 5.1):**

**Other Criteria:**

**Staff Reviewer Name(s):**

#### 1. IMPACT, OPPORTUNITY, EVIDENCE - IMPORTANCE TO MEASURE AND REPORT

Importance to Measure and Report is a threshold criterion that must be met in order to recommend a measure for endorsement. All three subcriteria must be met to pass this criterion. See [guidance on evidence](#).

**Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria)**

**1a. High Impact:** H  M  L  I

(The measure directly addresses a specific national health goal/priority identified by DHHS or NPP, or some other high impact aspect of healthcare.)

**De.4 Subject/Topic Areas (Check all the areas that apply):** Musculoskeletal, Musculoskeletal : Functional Status, Musculoskeletal : Hip/Pelvic Fracture, Musculoskeletal : Osteoarthritis, Musculoskeletal : Osteoporosis, Prevention, Prevention : Physical Activity, Prevention : Screening

**De.5 Cross Cutting Areas** (Check all the areas that apply): Health and Functional Status : Functional Status, Prevention, Safety

**1a.1 Demonstrated High Impact Aspect of Healthcare:** Affects large numbers, A leading cause of morbidity/mortality, High resource use, Patient/societal consequences of poor quality

**1a.2 If "Other," please describe:**

**1a.3 Summary of Evidence of High Impact** (Provide epidemiologic or resource use data):

Falls are one of the most common and significant health issues facing people aged 65 years or older (Schneider, Shubert & Harmon, 2010). Older adults are five times more likely to be hospitalized for fall-related injuries than any other cause-related injury. It is estimated that one in every three adults over 65 will fall each year (CDC, 2010). In those over age 80, the rate of falls increases to fifty percent (Doherty et al., 2009). Falls are also associated with substantial cost and resource use, approaching \$30,000 per fall hospitalization (Woolcott, et al., 2011). Falls among elderly persons are a serious concern not simply due to the high incidence of falls but because of the susceptibility of injury and even death. Falls are the leading cause of death due to injury for the 65 and older population as well as the most common cause of nonfatal injuries and trauma related hospital admissions. In 2007, 18,000+ adults above the age of 64 died due to unintentional fall injuries. In 2008, over two million older adults required emergency care as a result of a fall, 559,000 of which needed hospitalization (CDC, 2010). A recent study calculated the number needed to treat (NNT) to prevent one fall as 32 for a single intervention compared with seven for a multidisciplinary intervention (Hanley, Silke & Murphy, 2010). With such a low NNT, this measure has the opportunity to have high impact.

Between 20% and 30% of people who fall experience an injury (CDC, 2010). Roughly 10% of all falls cause major injuries such as fractures, serious soft tissue damage and traumatic brain injury (Tinetti, 2010). Lacerations are another common, and sometimes severe, injury incurred by falling. The majority of fractures among older adults are caused by falling, fracturing the spine, hip, forearm, leg, pelvis, upper arm, and/or hand (CDC, 2010). Of fall-related fractures, hip fractures are one of the more serious, often resulting in long-term functional limitation, nursing home admission and increased mortality. Over 90% percent of hip fractures result from falls (CDC, 2010). Hip fractures have a significant impact on older adults' independence and quality of life. Only half of older adults hospitalized for a hip fracture are able to return home or live independently after the injury (Wolinsky et al., 2009).

Falls can also have serious psychological and social consequences. Developing a fear of falling is another common outcome even if no injury was sustained in the first fall. Living in fear of a fall can limit an older adult's quality of life because it causes them to limit their activities, leading to reduced mobility and loss of physical fitness, which ultimately increases their risk of falling (CDC, 2010). Recurrent falls are a common reason for long-term care admissions (Soriano et al., 2007). According a statistical brief released by the Agency for Healthcare Research and Quality, falls were a significant factor in 40.9 percent of admissions to long-term care facilities (Owens et al., 2009). Adults 75 and older are about 5 times more likely to be admitted to a long-term care facility for a year or longer than those between 65 and 74 (CDC, 2010).

Falls have a significant economic cost. In 2005, total direct cost of fall injuries for adults age 65 and older was over \$34 billion (NCOA, 2010). The direct costs for fall-related care include fees for hospital and nursing home care, doctors and other professional services, rehabilitation, community-based services, use of medical equipment, prescription drugs, changes made to the home, and insurance processing. It is estimated that by 2020, the annual direct and indirect cost of fall injuries is expected to reach \$54.9 billion (CDC, 2010).

**1a.4 Citations for Evidence of High Impact cited in 1a.3:** al-Aama T. (2011). Falls in the Elderly: Spectrum and Prevention. *Can Fam Physician*; 57(7):771-6.

Centers for Disease Control and Prevention. Injury Prevention & Control: Home and Recreational Safety. Falls Among Older Adults: An Overview. September 13, 2010.

Clyburn TA & Heydemann JA. (2011). Fall Prevention in the Elderly: Analysis and Comprehensive Review of Methods Used in the Hospital and the Home. *J Am Acad Orthop Surg*;19(7):402-9.

Doherty M, Crossen-Sills J. Bonus Content Geriatric Care Fall Risk: Keep your patients in balance. *The Nurse Practitioner: The American Journal of Primary Health Care*. December 2009. Vol.34(12):46 – 51.

Dykes PC, Carroll DL, Hurley A, Lipsitz S, Benoit A, Chang F, Meltzer S, Tsurikova R, Zuyov L, Middleton B. Fall Prevention in Acute Care Hospitals. *JAMA*. 2010;304(17):1912-1918.

Hanley A, Silke C & Murphy J. (2010). Community-based Health Efforts for the Prevention of Falls in the Elderly. *Clinical Interventions in Aging*;6:19-25.

Schneider EC, Shubert TE & Harmon KJ. (2010). Addressing the Escalating Public Health Issue of Falls Among Older Adults. *North Carolina Medical Journal*;71(6):547-52.

Weinberg J, PRoske D, Szerszen A, Lefkovic K, Cline C, El-Sayegh S, Jarrett M, & Weiserbs KF. (2011). An Inpatient Fall Prevention Initiative in a Tertiary Care Hospital. *Jt Comm J Qual Patient Saf*;37(7):317-25.

Woolcott JC, Khan KM, Mitrovic S, Anis AH, & Marra CA. (2011). The Cost of Fall Related Presentations to the ED: A Prospective, In-Person, Patient-Tracking Analysis of Health Resource Utilization. *Osteoporos Int*;[Epub ahead of print].

Centers for Disease Control and Prevention. Injury Prevention & Control: Home and Recreational Safety. Costs of Falls Among Older Adults. September 13, 2010.

Centers for Disease Control and Prevention. Injury Prevention & Control: Home and Recreational Safety. Hip Fractures Among Older Adults. September 10, 2010.

Centers for Disease Control and Prevention. Injury Prevention & Control: Home and Recreational Safety. Falls Among Older Adults: An Overview. September 13, 2010.

Doherty M, Crossen-Sills J. Bonus Content Geriatric Care Fall Risk: Keep your patients in balance. *The Nurse Practitioner: The American Journal of Primary Health Care*. December 2009. Vol.34(12):46 – 51.

Dykes PC, Carroll DL, Hurley A, Lipsitz S, Benoit A, Chang F, Meltzer S, Tsurikova R, Zuyov L, Middleton B. Fall Prevention in Acute Care Hospitals. *JAMA*. 2010;304(17):1912-1918.

National Council on Aging (NCOA). Improving the Lives of Older Americans. May 13, 2010. Found at: <http://www.ncoa.org/press-room/press-release/ncoa-and-phi-launch-falls.html>

Owens PL, Russo CA, Spector W, Mutter R. Agency for Healthcare Research and Quality. H-CUP Statistical Brief #80: Emergency Department Visits for Injurious Falls among the Elderly, 2006. October 2009.

Soriano TA, DeCherrie LV, Thomas DC. Falls in the community-dwelling older adult: A review for primary-care providers. *Clin Interv Aging*. 2007 December; 2(4): 545–553.

Tinetti, ME. The Patient Who Falls: "It's Always a Trade-off". JAMA. 2010;303(3):258-266.

Wolinsky FD, Bentler SE, Liu L, Obrizan M, Cook EA, Wright KB, Geweke JF, Chrischilles EA, Pavlik CE, Ohsfeldt RL, Jones MP, Richardson KK, Rosenthal GE, Wallace RB. Recent Hospitalization and the Risk of Hip Fracture Among Older Americans. J Gerontol A Biol Sci Med Sci. 2009 February; 64A(2): 249–255.

**1b. Opportunity for Improvement: H ● M ● L ● I ●**

*(There is a demonstrated performance gap - variability or overall less than optimal performance)*

**1b.1 Briefly explain the benefits (improvements in quality) envisioned by use of this measure:**

Identifying at-risk patients to target for comprehensive risk-assessment and intervention is the most important part of falls prevention. Family physicians have a pivotal role in screening older patients for risk of falls, and applying preventive strategies for patients at risk (al-Aama, 2011).

al-Aama T. (2011). Falls in the Elderly: Spectrum and Prevention. Can Fam Physician; 57(7):771-6.

**1b.2 Summary of Data Demonstrating Performance Gap** *(Variation or overall less than optimal performance across providers): [For Maintenance – Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.]*

**(A) Screening for Future Fall Risk:**

This measure is used in the CMS Physician Quality Reporting Initiative, in the claims option. There is a gap in care as shown by the variation in this 2008 data;

Mean performance 44.00%

10th percentile: 3.97 %

25th percentile: 20.25 %

50th percentile: 59.22 %

75th percentile: 87.18 %

90th percentile: 97.62 %

**(B) Multifactorial Risk Assessment for Falls:**

This measure is used in the CMS Physician Quality Reporting System 2009 and 2010 claims and Registry options. There is a gap in care as shown by this 2009 data:

Mean Performance Rate: 88.23%

Number of Eligible Professionals Submitting: 8,178

**(C) Plan of Care to Prevent Future Falls:**

CMS 2009 Physician Quality Reporting System:

This measure is used in the CMS Physician Quality Reporting System 2009 and 2010 Claims and Registry options. There is a gap in care as shown by this 2009 data:

Mean Performance Rate: 86.80%

Eligible Professionals Submitting: 3,257

**1b.3 Citations for Data on Performance Gap:** *[For Maintenance – Description of the data or sample for measure results reported in 1b.2 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included]*

**Screening for Future Fall Risk:**

Section 1b.2 references data from the most recently available year of measurement from PQRI including percentiles.

**Risk Assessment for Falls & Plan of Care for Falls:**

Section 1b.2 references data from 2009, most recent year available from PQRS.

2009 Physician Quality Reporting System and eRx Experience Report. Appendix B: 2009 Physician Quality Reporting System Detailed Tables

**1b.4 Summary of Data on Disparities by Population Group: [For Maintenance –Descriptive statistics for performance results for this measure by population group]**

The measure is not stratified by patient groups or cohorts that could potentially be affected by disparities in care. NCQA has participated with IOM and others in attempting to include information on disparities in measure data collection. However, at the present time, this data, at all levels (claims data, paper chart review, and electronic records), is not coded in a standard manner, and is incompletely captured. There are no consistent standards for what entity (physician, group, plan, and employer) should capture and report this data. While “requiring” reporting of the data could push the field forward, it has been our position that doing so would create substantial burden without generating meaningful results. We believe that the measure specifications should not require this unless absolutely necessary since the data needed to determine disparities cannot be ascertained from the currently available sources.

**1b.5 Citations for Data on Disparities Cited in 1b.4: [For Maintenance – Description of the data or sample for measure results reported in 1b.4 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included]**

N/A

**1c. Evidence (Measure focus is a health outcome OR meets the criteria for quantity, quality, consistency of the body of evidence.)**

**Is the measure focus a health outcome? Yes  No  If not a health outcome, rate the body of evidence.**

**Quantity: H  M  L  I  Quality: H  M  L  I  Consistency: H  M  L  I**

Quantity	Quality	Consistency	Does the measure pass subcriterion1c?
M-H	M-H	M-H	Yes <input checked="" type="radio"/>
L	M-H	M	Yes <input checked="" type="radio"/> IF additional research unlikely to change conclusion that benefits to patients outweigh harms: otherwise No <input type="radio"/>
M-H	L	M-H	Yes <input checked="" type="radio"/> IF potential benefits to patients clearly outweigh potential harms: otherwise No <input type="radio"/>
L-M-H	L-M-H	L	No <input type="radio"/>

**Health outcome** – rationale supports relationship to at least one healthcare structure, process, intervention, or service

**Does the measure pass subcriterion1c?**  
Yes  IF rationale supports relationship

**1c.1 Structure-Process-Outcome Relationship (Briefly state the measure focus, e.g., health outcome, intermediate clinical outcome, process, structure; then identify the appropriate links, e.g., structure-process-health outcome; process- health outcome; intermediate clinical outcome-health outcome):**

(A) Screening for Future Falls Risk >> (B) Multifactorial Risk Assessment for Falls >> (C) Plan of Care to Prevent Future Falls >> reduced number of falls

**1c.2-3 Type of Evidence (Check all that apply):**

Clinical Practice Guideline, Systematic review of body of evidence (other than within guideline development)



**1c.4 Directness of Evidence to the Specified Measure** (*State the central topic, population, and outcomes addressed in the body of evidence and identify any differences from the measure focus and measure target population*):

The evidence directly relates the effectiveness of screening, multifactorial risk assessment, and implementing a plan of care to prevent future falls risk for older adults.

**1c.5 Quantity of Studies in the Body of Evidence** (*Total number of studies, not articles*): 61 (USPSTF) 111 (AGS/BGS)

**1c.6 Quality of Body of Evidence** (*Summarize the certainty or confidence in the estimates of benefits and harms to patients across studies in the body of evidence resulting from study factors. Please address: a) study design/flaws; b) directness/indirectness of the evidence to this measure (e.g., interventions, comparisons, outcomes assessed, population included in the evidence); and c) imprecision/wide confidence intervals due to few patients or events*): Widely accepted evidenced based guidelines recommend that all older persons who are under the care of a health professional should be asked at least once a year about falls and if falls have occurred, that they receive assessment and advice on how to avoid falls. Older persons who seek medical attention directly for a fall, report multiple falls per year, or demonstrate irregularities of gait and/or balance should receive a fall evaluation. A fall evaluation identifies risk factors related to vision, muscle strength and reflexes— important information for developing a treatment plan (AGS, 2010).

The USPSTF concluded the evidence was of fair quality. “In 16 RCTs evaluating exercise or physical therapy, interventions reduced falling (risk ratio, 0.87 [95% CI, 0.81 to 0.94]). In 9 RCTs of vitamin D supplementation, interventions reduced falling (risk ratio, 0.83 [CI, 0.77 to 0.89]). In 19 trials involving multifactorial assessment and management, interventions with comprehensive management seemed to reduce falling, although overall pooled estimates were not statistically significant (risk ratio, 0.94 [CI, 0.87 to 1.02]). Limited evidence suggested that serious clinical harms were no more common for older adults in intervention groups than for those in control groups. (USPSTF 2010)”

**1c.7 Consistency of Results across Studies** (*Summarize the consistency of the magnitude and direction of the effect*): The evidence that multifactorial risk assessment and screening alone can prevent future falls is low. However, there is agreement that risk assessment followed by the appropriate intervention for people at risk of future falls can significantly affect the rate of fall prevention (USPSTF 2010). The USPSTF cited “Interventions and methods of fall ascertainment were heterogeneous.” Despite this variation across studies there is consensus that all older adults should be asked about past falls and balance or gait problems. Individuals identified as being at risk of future falls risk should receive a multifactorial risk assessment and appropriate intervention to prevent future falls (AGS/BGS/AAOS, 2001).

**1c.8 Net Benefit** (*Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms*):

The goal of screening for falls and identifying fall risk is to prevent or reduce fall risk. A structured and standardized screening process can improve provider adherence to guideline recommendations. The American Geriatrics Society along with the British Geriatrics Society recommends fall risk assessment based on epidemiological studies demonstrating an association between certain risk factors and falls and from experimental studies in which assessment followed by intervention demonstrated benefit (AGS 2010). Assuming that the interventions are carried out, multifactorial falls risk assessment and management programs could be one of the most effective intervention for reducing both the risk for falling and the monthly rate of falling (Chang, 2004; Gillespie, 2010). Individuals who have experienced two or more falls in the last year or who have gait or balance issues have an increased likelihood of falling, therefore would benefit from multifactorial falls risk assessment (AGS, 2010). The USPSTF concluded “Primary care-relevant interventions exist that can reduce falling among community-dwelling older adults .... data on

potential harms of interventions were scant and often not reported. (USPSTF 2010)”

**1c.9 Grading of Strength/Quality of the Body of Evidence.** Has the body of evidence been graded? **No**

**1c.10 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias:** **N/A**

**1c.11 System Used for Grading the Body of Evidence:** **Other**

**1c.12 If other, identify and describe the grading scale with definitions:** **N/A**

**1c.13 Grade Assigned to the Body of Evidence:** **N/A**

**1c.14 Summary of Controversy/Contradictory Evidence:** **No areas of controversy.**

**1c.15 Citations for Evidence other than Guidelines(Guidelines addressed below):**

Chang JT, Morton SC, Rubenstein LZ, et al. Interventions for the prevention of falls in older adults: systematic review and meta-analysis of randomized clinical trials. *BMJ* 2004; 328:680-3.

Gillespie LD, Robertson MC, Gillespie WJ, Lam WE, Gates S, Cumming RG, Rowe BH. Interventions for preventing falls in older people living in the community. *Cochrane Database of Systematic Reviews* 2009, Issue 2. Art. No.: CD007146. DOI: 10.1002/14651858.CD007146.pub2.

The American Geriatrics Society. AGS Clinical Practice Guideline: Prevention of Falls in Older Persons (2010). Accessed at:

[http://www.americangeriatrics.org/health\\_care\\_professionals/clinical\\_practice/clinical\\_guidelines\\_recommendations/prevention\\_of\\_falls\\_summary\\_of\\_recommendations](http://www.americangeriatrics.org/health_care_professionals/clinical_practice/clinical_guidelines_recommendations/prevention_of_falls_summary_of_recommendations)

Michael Y, Whitlock EP, Lin JS, Fu R, O'Connor EA, Cold R. Primary Care-Relevant Interventions to Prevent Falling in Older Adults: A systematic evidence review for the U.S. Preventive Services Task Force. December 2010. Accessed 7/2/2012.

<http://www.uspreventiveservicestaskforce.org/uspstf11/fallsprevention/fallsprevart.htm>

**1c.16 Quote verbatim, the specific guideline recommendation (Including guideline # and/or page #):**

Two guideline/recommendations are listed below: U.S. Preventive Services Task Force (USPSTF) and American Geriatric Society/British Geriatric Society (AGS/BGS).

**USPSTF:**

The USPSTF recommends exercise or physical therapy and vitamin D supplementation to prevent falls in community-dwelling adults aged 65 years or older who are at increased risk for falls.

Grade: B Recommendation.

The USPSTF does not recommend automatically performing an in-depth multifactorial risk assessment in conjunction with comprehensive management of identified risks to prevent falls in community-dwelling adults aged 65 years or older because the likelihood of benefit is small. In determining whether this service is appropriate in individual cases, patients and clinicians should consider the balance of benefits and harms on the basis of the circumstances of prior falls, comorbid medical conditions, and patient values.

Grade: C Recommendation.

**AGS/BGS:**

**SCREENING AND ASSESSMENT**

1. All older individuals should be asked whether they have fallen (in the past year).
2. An older person who reports a fall should be asked about the frequency and circumstances of the



fall(s).

3. Older individuals should be asked if they experience difficulties with walking or balance.
4. Older persons who present for medical attention because of a fall, report recurrent falls in the past year, or report difficulties in walking or balance (with or without activity curtailment) should have a multifactorial fall risk assessment.
5. Older persons presenting with a single fall should be evaluated for gait and balance.
6. Older persons who have fallen should have an assessment of gait and balance using one of the available evaluations.
7. Older persons who cannot perform or perform poorly on a standardized gait and balance test should be given a multifactorial fall risk assessment.
8. Older persons who have difficulty or demonstrate unsteadiness during the evaluation of gait and balance require a multifactorial fall risk assessment.
9. Older persons reporting only a single fall and reporting or demonstrating no difficulty or unsteadiness during the evaluation of gait and balance do not require a fall risk assessment.
10. The multifactorial fall risk assessment should be performed by a clinician (or clinicians) with appropriate skills and training.
11. The multifactorial fall risk assessment should include the following:

#### Focused History

History of falls: Detailed description of the circumstances of the fall(s), frequency, symptoms at time of fall, injuries, other consequences

Medication review: All prescribed and over-the-counter medications with dosages

History of relevant risk factors: Acute or chronic medical problems, (e.g., osteoporosis, urinary incontinence, cardiovascular disease)

#### Physical Examinations

Detailed assessment of gait, balance, and mobility levels and lower extremity joint function

Neurological function: Cognitive evaluation, lower extremity peripheral nerves, proprioception, reflexes, tests of cortical, extrapyramidal and cerebellar function

Muscle strength (lower extremities)

Cardiovascular status: Heart rate and rhythm, postural pulse, blood pressure, and, if appropriate, heart rate and blood pressure responses to carotid sinus stimulation

Assessment of visual acuity

Examination of the feet and footwear

#### Functional Assessment

Assessment of activities of daily living (ADL) skills including use of adaptive equipment and mobility aids, as appropriate

Assessment of the individual's perceived functional ability and fear related to falling

(Assessment of current activity levels with attention to the extent to which concerns about falling are protective [i.e., appropriate given abilities] or contributing to deconditioning and/or compromised quality of life [i.e., individual is curtailing involvement in activities he or she is safely able to perform due to fear of falling])

#### Environmental Assessment

Environmental assessment including home safety

#### INTERVENTIONS

1. The multifactorial fall risk assessment should be followed by direct interventions tailored to the identified risk factors, coupled with an appropriate exercise program.[A]
2. A strategy to reduce the risk of falls should include multifactorial assessment of known fall risk

- factors and management of the risk factors identified. [A]
3. The components most commonly included in efficacious interventions were:
    - a. Adaptation or modification of home environment [A]
    - b. Withdrawal or minimization of psychoactive medications [B]
    - c. Withdrawal or minimization of other medications [C]
    - d. Management of postural hypotension [C]
    - e. Management of foot problems and footwear [C]
    - f. Exercise, particularly balance, strength, and gait training [A]
  4. All older adults who are at risk of falling should be offered an exercise program incorporating balance, gait, and strength training. Flexibility and endurance training should also be offered, but not as sole components of the program. [A]
  5. Multifactorial/multicomponent intervention should include an education component complementing and addressing issues specific to the intervention being provided, tailored to individual cognitive function and language. [C]
  6. The health professional or team conducting the fall risk assessment should directly implement the interventions or should assure that the interventions are carried out by other qualified healthcare professionals. [A]
  7. Psychoactive medications (including sedative hypnotics, anxiolytics, antidepressants) and antipsychotics (including new antidepressants or antipsychotics) should be minimized or withdrawn, with appropriate tapering if indicated. [B]
  8. A reduction in the total number of medications or dose of individual medications should be pursued. All medications should be reviewed, and minimized or withdrawn. [B]
  9. Exercise should be included as a component of multifactorial interventions for fall prevention in community-residing older persons. [A]
  10. An exercise program that targets strength, gait and balance, such as Tai Chi or physical therapy, is recommended as an effective intervention to reduce falls [A]
  11. Exercise may be performed in groups or as individual (home) exercises, as both are effective in preventing falls. [B]
  12. Exercise programs should take into account the physical capabilities and health profile of the older person, (i.e., be tailored) and be prescribed by qualified health professionals or fitness instructors. [I]
  13. The exercise program should include regular review, progression and adjustment of the exercise prescription as appropriate. [I]
  14. In older women in whom cataract surgery is indicated, surgery should be expedited as it reduces the risk of falling. [B]
  15. There is insufficient evidence to recommend for or against the inclusion of vision interventions within multifactorial fall prevention interventions. [I]
  16. There is insufficient evidence to recommend vision assessment and intervention as a single intervention for the purpose of reducing falls. [D]
  17. An older person should be advised not to wear multifocal lenses while walking, particularly on stairs. [C]
  18. Assessment and treatment of postural hypotension should be included as components of multifactorial interventions to prevent falls in older persons. [B]
  19. Dual chamber cardiac pacing should be considered for older persons with cardioinhibitory carotid sinus hypersensitivity who experience unexplained recurrent falls. [B]
  20. Vitamin D supplements of at least 800 IU per day should be provided to older persons with proven vitamin D deficiency. [A]
  21. Vitamin D supplements of at least 800 IU per day should be considered for people with suspected vitamin D deficiency or who are otherwise at increased risk for falls. [B]
  22. Identification of foot problems and appropriate treatment should be included in multifactorial fall risk assessments and interventions for older persons living in the community. [C]
  23. Older people should be advised that walking with shoes of low heel height and high surface contact

area may reduce the risk of falls. [C]

24. Home environment assessment and intervention carried out by a health care professional should be included in a multifactorial assessment and intervention for older persons who have fallen or who have risk factors for falling. [A]

25. The intervention should include mitigation of identified hazards in the home, and evaluation and interventions to promote the safe performance of daily activities. [A]

26. Education and information programs should be considered part of a multifactorial intervention for older persons living in the community. [C]

27. Education should not be provided as a single intervention to reduce falls in older persons living in the community. [D]

**1c.17 Clinical Practice Guideline Citation:** The American Geriatrics Society. AGS Clinical Practice Guideline: Prevention of Falls in Older Persons (2010).

The U.S. Preventive Services Task Force. Prevention of Falls in Community Dwelling Adults. May 2012. Accessed 7/2/2012. <http://www.uspreventiveservicestaskforce.org/uspstf/uspsfalls.htm>

**1c.18 National Guideline Clearinghouse or other URL:**

<http://www.guideline.gov/syntheses/synthesis.aspx?id=25624&search=falls+prevention;>  
[http://www.americangeriatrics.org/health\\_care\\_professionals/clinical\\_practice/clinical\\_guidelines\\_recommendations/prevention\\_of\\_falls\\_summary\\_of\\_recommendations;](http://www.americangeriatrics.org/health_care_professionals/clinical_practice/clinical_guidelines_recommendations/prevention_of_falls_summary_of_recommendations;)  
<http://www.uspreventiveservicestaskforce.org/uspstf/uspsfalls.htm>

**1c.19 Grading of Strength of Guideline Recommendation.** Has the recommendation been graded? Yes

**1c.20 If guideline recommendation graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias:** American Geriatric Society and British Geriatric Society Expert consensus with evidence review. The U.S. Preventive Services Task Force, expert consensus with evidence review.

**1c.21 System Used for Grading the Strength of Guideline Recommendation:** GRADE

**1c.22 If other, identify and describe the grading scale with definitions:**

**1c.23 Grade Assigned to the Recommendation:** Screening for Future Falls:AGS/BGS Grade A / Risk Assessment for Falls: AGS/BGS Grade A-B, USPSTF Grade C/ Plane of Care for Falls:AGS/BGS Grade A-B,USPSTF Grade B

**1c.24 Rationale for Using this Guideline Over Others:** An expert panel of diverse stakeholders reviewed the guidelines and evidence supporting this measure concept. The panel determined the evidence used to support this measure was scientifically sound. Other guidelines are consistent with these recommendations.

**Based on the NQF descriptions for rating the evidence, what was the developer's assessment of the quantity, quality, and consistency of the body of evidence?**

**1c.25** Quantity: High **1c.26** Quality: High**1c.27** Consistency: High

**1c.28** Attach evidence submission form:

**1c.29** Attach appendix for supplemental materials:

**Was the threshold criterion, *Importance to Measure and Report*, met?**

**(1a & 1b must be rated moderate or high and 1c yes) Yes  No**

**Provide rationale based on specific subcriteria:**

**For a new measure if the Committee votes NO, then STOP.**

**For a measure undergoing endorsement maintenance, if the Committee votes NO because of 1b. (no opportunity for improvement), it may be considered for continued endorsement and all criteria need to be evaluated.**

## 2. RELIABILITY & VALIDITY - SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. **(evaluation criteria)**

Measure testing must demonstrate adequate reliability and validity in order to be recommended for endorsement. Testing may be conducted for data elements and/or the computed measure score. Testing information and results should be entered in the appropriate field. Supplemental materials may be referenced or attached in item 2.1. See [guidance on measure testing](#).

**S.1 Measure Web Page** (*In the future, NQF will require measure stewards to provide a URL link to a web page where current detailed specifications can be obtained*). Do you have a web page where current detailed specifications for this measure can be obtained? **Yes**

**S.2 If yes, provide web page URL:** <http://www.ama-assn.org/apps/listserv/x-check/qmeasure.cgi?submit=PCPI>

### 2a. RELIABILITY. Precise Specifications and Reliability Testing: H● M● L● I●

#### 2a1. Precise Measure Specifications. (*The measure specifications precise and unambiguous.*)

**2a1.1 Numerator Statement** (*Brief, narrative description of the measure focus or what is being measured about the target population, e.g., cases from the target population with the target process, condition, event, or outcome*):

This measure has three rates. The numerators for the three rates are as follows:

- A) Screening for Future Fall Risk: Patients who were screened for future fall\* risk\*\* at last once within 12 months
- B) Multifactorial Falls Risk Assessment: Patients at risk\* of future fall\*\* who had a multifactorial risk assessment\*\*\* for falls completed within 12 months
- C) Plan of Care to Prevent Future Falls: Patients at risk\* of future fall\*\* with a plan of care\*\*\*\* for falls prevention documented within 12 months.

\*A fall is defined as a sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of a sudden onset of paralysis, epileptic seizure, or overwhelming external force.

\*\*Risk of future falls is defined as having had had 2 or more falls in the past year or any fall with injury in the past year.

\*\*\*Risk assessment is defined as at a minimum comprised of balance/gait AND one or more of the following: postural blood pressure, vision, home fall hazards, and documentation on whether medications are a contributing factor or not to falls within the past 12 months.

\*\*\*Plan of care is defined as at a minimum consideration of appropriate assistance device AND balance, strength and gait training.

**2a1.2 Numerator Time Window** (*The time period in which the target process, condition, event, or outcome is eligible for inclusion*):

A twelve month measurement period

**2a1.3 Numerator Details** *(All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, codes with descriptors, and/or specific data collection items/responses:*

This measure has three rates. The numerator details for the three rates are as follows:

A) Screening for Future Fall Risk: Patients are considered to be numerator compliant if any of the following codes are present in the patient record.

CPT Category II code: 1100F - Patient screened for future fall risk; documentation of two or more falls in the past year or any fall with injury in the past year OR CPT Category II code: 1101F - Patient screened for future fall risk; documentation of no falls in the past year or only one fall without injury in the past year

B) Multifactorial Falls Risk Assessment: All patients who have a risk assessment for falls completed in the 12 month measurement period comprised of balance/gait AND one or more of the following: postural blood pressure, vision, home fall hazards, and documentation on whether medications are a contributing factor or not to falls within the past 12 months.

Balance/gait: (1) Documentation of observed transfer and walking, or (2) Use of a standardized scale (eg, Get Up & Go, Berg, Tinetti), or (3) Documentation of referral for assessment of balance/gait

Postural blood pressure: Documentation of blood pressure values in standing and supine positions

Vision: (1) Documentation that patient is functioning well with vision or not functioning well with vision based on discussion with the patient, or (2) Use of a standardized scale or assessment tool (eg, Snellen), or (3) Documentation of referral for assessment of vision

Home fall hazards: (1) Documentation of counseling on home falls hazards, or (2) Documentation of inquiry of home fall hazards, or (3) referral for evaluation of home fall hazards.

Medications: Documentation of whether the patient's current medications may or may not contribute to falls.

All components do not need to be completed during a single patient visit, but should be documented in the medical record as having been performed within the past 12 months.

CPT II 3288F: Falls risk assessment documented

C) Plan of Care to Prevent Future Falls: All patients who have plan of care for fall risks completed in the 12 month measurement period comprised of consideration of appropriate assistance device AND balance, strength and gait training.

Consideration of appropriate assistance device: Documentation that an assistive device was provided or considered, or referral for evaluation for an appropriate assistance device

Balance, strength, and gait training: Documentation that balance, strength, and gait training/instructions were provided, or referral to an exercise program, which includes at least one of the three components: balance, strength or gait.

All components do not need to be completed during a single patient visit, but should be documented in the medical record as having been performed within the past 12 months.

CPT II 0518F: Falls plan of care documented

**2a1.4 Denominator Statement** (Brief, narrative description of the target population being measured):

A) Screening for Future Fall Risk: All patients aged 65 years and older seen by an eligible provider in the past year.

B & C) Multifactorial Falls Risk Assessment & Plan of Care to Prevent Future Falls: All patients aged 65 years and older with a history of falls (history of falls is defined as 2 or more falls in the past year or any fall with injury in the past year) seen by an eligible provider in the past year.

**2a1.5 Target Population Category** (Check all the populations for which the measure is specified and tested if any): Adult/Elderly Care, Populations at Risk

**2a1.6 Denominator Time Window** (The time period in which cases are eligible for inclusion):

A twelve month measurement period

**2a1.7 Denominator Details** (All information required to identify and calculate the target population/denominator such as definitions, codes with descriptors, and/or specific data collection items/responses):

A) Screening for Future Fall Risk: Patients are included in the denominator if they have been seen by a healthcare practitioner during the measurement period. Use the following CPT codes to identify encounters that meet inclusion criteria.

CPT codes for Screening for Future Fall Risk:

97001, 97002, 97003, 97004, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99387, 99397, 99401, 99402, 99403, 99404

B & C) Multifactorial Falls Risk Assessment & Plan of Care to Prevent Future Falls: Patients are included in the denominator if they have been seen by a healthcare practitioner during the measurement period. Use the following CPT codes to identify encounters that meet inclusion criteria.

CPT Code: for Risk Assessment for Falls & Plan of Care for Falls:

97001, 97002, 97003, 97004, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

AND

Report the following CPT Category II code to confirm a history of falls:

1100F: Patient screened for future fall risk; documentation of two or more falls in the past year.

**2a1.8 Denominator Exclusions** (Brief narrative description of exclusions from the target population):

Patients who have documentation of medical reason(s) for not screening for future fall risk, undergoing a risk-assessment or having a plan of care (e.g., patient is not ambulatory) are considered exclusion to this measure.

**2a1.9 Denominator Exclusion Details** (All information required to identify and calculate exclusions from the denominator such as definitions, codes with descriptors, and/or specific data collection items/responses):

Patients are considered to be excluded from measurement if any of the following codes are present in the patient record:



CPT II Category II code:

1100F–1P OR 1101F–1P: Documentation of medical reason(s) for not screening for future fall risk

3288F with 1P: Documentation of medical reason(s) for not completing a risk assessment for falls

0518F with 1P: Documentation of medical reason(s) for no plan of care for falls

**2a1.10 Stratification Details/Variables** (All information required to stratify the measure results including the stratification variables, codes with descriptors, definitions, and/or specific data collection items/responses):

N/A

**2a1.11 Risk Adjustment Type** (Select type. Provide specifications for risk stratification in 2a1.10 and for statistical model in 2a1.13): No risk adjustment or risk stratification    **2a1.12 If "Other," please describe:**

**2a1.13 Statistical Risk Model and Variables** (Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development should be addressed in 2b4.):

N/A

**2a1.14-16 Detailed Risk Model Available at Web page URL** (or attachment). Include coefficients, equations, codes with descriptors, definitions, and/or specific data collection items/responses. Attach documents only if they are not available on a webpage and keep attached file to 5 MB or less. NQF strongly prefers you make documents available at a Web page URL. Please supply login/password if needed:

**2a1.17-18. Type of Score:** Rate/proportion

**2a1.19 Interpretation of Score** (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score):

Better quality = Higher score

**2a1.20 Calculation Algorithm/Measure Logic**(Describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; aggregating data; risk adjustment; etc.):

Measure Calculation

For performance purposes, this measure is calculated by creating a fraction with the following components: Denominator, Numerator, and Exclusions.

Step 1: Determine the eligible population. The eligible population is all the patients aged 65 years and up.

Step 2: Determine number of patients meeting the denominator criteria for (A) screening for future fall risk as specified in Section 2a1.7 above. The denominator includes all patients 65 and up seen by a health care provider in the measurement year.

Step 3: Determine the number of patients who meet the numerator criteria for (A) screening for future fall risk as specified in section 2a1.3 above. The numerator includes all patients in the denominator population (step 2) who were screened for future fall risk as least once within a twelve month period.

Step 4: Identify patients with valid exclusions and remove from the denominator (step 2). Patients with documented medical reason(s) for not screening for fall risk (e.g., patient is not ambulatory) are excluded from to the denominator.

Step 5: Determine the number of patients from Step 3 who meet the denominator criteria for (B) multifactorial falls risk assessment and (C) plan of care to prevent future falls as specified in section 2a1.3.

Step 6: Determine the number of patients who meet the numerator criteria for (B) multifactorial falls risk assessment as specified in section 2a1.3 above. The numerator includes all patients in the denominator (step 5) who received a risk assessment within 12 months.

Step 7: Determine the number of patients who meet the numerator criteria for (C) plan of care to prevent future falls as specified in section 2a1.3 above. The numerator includes all patients in the denominator (step 5) population with a documented plan of care for falls within 12 months.

Step 8: Identify patients with valid exclusions and remove from the denominator (step 5). Patients with documented medical reason(s) for not screening for fall risk (e.g., patient is not ambulatory) and not having a plan of care to prevent future falls are excluded from to the denominator.

Step 9: Calculate rates as follows (A) screening for future fall risk = step 3/step 4; (B) multifactorial risk assessment= step 6/step 8; (C) plan of care to prevent future falls = step 7/step 8.

**2a1.21-23 Calculation Algorithm/Measure Logic Diagram URL or attachment:**

**2a1.24 Sampling (Survey) Methodology.** If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):

N/A

**2a1.25 Data Source** (*Check all the sources for which the measure is specified and tested*). If other, please describe:

Administrative claims

**2a1.26 Data Source/Data Collection Instrument** (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.*): N/A

**2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment:**

**2a1.30-32 Data Dictionary/Code Table Web Page URL or Attachment:**

**2a1.33 Level of Analysis** (*Check the levels of analysis for which the measure is specified and tested*):

Clinician : Group/Practice, Clinician : Individual, Clinician : Team

**2a1.34-35 Care Setting** (*Check all the settings for which the measure is specified and tested*): Ambulatory

Care : Clinician Office/Clinic, Ambulatory Care : Urgent Care, Home Health, Hospice, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility

**2a2. Reliability Testing.** (*Reliability testing was conducted with appropriate method, scope, and adequate demonstration of reliability.*)

**2a2.1 Data/Sample** (*Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*):

PCPI Testing Project

Four practice sites representing various practice types, geographic locations and patient volumes were recruited to participate in testing the measure concept

- The number of geriatricians per site ranged from 1-16
- The sites were located in four different regions of the United States
- Patient visit volume per site ranged from 500 – 1,000 geriatric patients per month

Total patient population per practice varied (as indicated below). A random sample of 70 geriatric patient charts was selected from each site for abstraction. The sample included any Medicare patient who had an office visit between January 1 and December 31, 2009. One testing site extracted the information manually from paper medical records while the other three sites extracted testing data from electronic medical records. A total of 220 patient records were able to be successfully abstracted from all sites for the purposes of this study.

- Site 1 (Paper): 2,500 patients
- Site 2 (EHR): 1,800 patients
- Site 3 (EHR): 3,700 outpatients/2,000 LTC patients
- Site 4 (EHR): 2,500 patients

During the development process, abstractors were the ones responsible for defining the specific observations terms, creating a uniform understanding of the inclusion and exception criteria and defining the specific approach for dealing with various documentation practices. Inclusion terms for this measure were defined as: “\_\_falls since last visit”, “No falls” patient falling, losing balance, negative for falls, absence of falls. Abstractors reviewed all encounters within the year to determine the number of falls if not noted explicitly by a healthcare provider. Injury was determined by a practitioner notation of “injury”, related to hospitalization or ED encounter related to fall.

**2a2.2 Analytic Method** (*Describe method of reliability testing & rationale*):

Data was abstracted from a series of randomly selected patient records and used to calculate inter-rater reliability, by comparing it to measure results derived from claims.

Data analysis included:

- Percent agreement
- Kappa statistic of reliability

**2a2.3 Testing Results** (*Reliability statistics, assessment of adequacy in the context of norms for the test conducted*):

(A) Screening for Future Falls Risk Measure  
(N, % Agreement, Kappa (95% Confidence Interval))

Denominator (136, 100%, kappa is non-calculable\*)

Exceptions (24, 91.67%, 0.45, (-0.18 to 1.00))

Numerator (136, 98.53%, 0.95 (0.87 to 1.00))

Overall (139, 98.56%, 0.95 (0.88 to 1.00))

\*This is an example of the limitation of the Kappa statistic. While the agreement can be 90% or greater, if one classification category dominates, kappa can be significantly reduced.  
(<http://www.ajronline.org/cgi/content/full/184/5/1391>)

(B) Multifactorial Risk Assessment for Falls:  
Overall, this measure is highly reliable.

(N, % Agreement, Kappa (95% Confidence Interval))  
Denominator (34, 100%, Kappa statistic is not calculable)  
Exceptions (8, 100%, Kappa statistic is not calculable)  
Numerator (34, 100.00%, 1.00)  
Overall (43, 100.00%, 1.00)

(C) Plan of Care to Prevent Future Falls:  
Overall, this measure is highly reliable.

(N, % Agreement, Kappa ( 95% Confidence Interval))  
Denominator (15, 100.00%, Kappa is not calculable)  
Exceptions (1, 100.00%, Kappa is not calculable)  
Numerator (15, 100.00%, 1.00)  
Overall (15, 100.00%, 1.00)

**2b. VALIDITY. Validity, Testing, including all Threats to Validity: H ● M ● L ● I ●**

**2b1.1 Describe how the measure specifications (measure focus, target population, and exclusions) are consistent with the evidence cited in support of the measure focus (criterion 1c) and identify any differences from the evidence:**

The measure specifications target older adults living in the community. This is consistent with the evidence cited in support of the measure focus.

**2b2. Validity Testing.** (Validity testing was conducted with appropriate method, scope, and adequate demonstration of validity.)

**2b2.1 Data/Sample** (Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):

An expert panel used to assess this measure consisted of 33 members representing the following areas: internal medicine, geriatrics, anesthesia, orthopedic surgery, physical medicine & rehabilitation, neurology, palliative medicine, urology, geriatric psychiatry, emergency medicine, nephrology, radiation oncology, ophthalmology, medical epidemiology, methodology, hospital medicine, family medicine, and bioethics. The list of experts is provided in section Ad.1. Workgroup/Expert Panel Involved in Measure Development.

**2b2.2 Analytic Method** (Describe method of validity testing and rationale; if face validity, describe systematic assessment):

All NCQA-AMA-PCPI performance measures are assessed for content validity by expert work group members during the development process. Additional input on the content validity of draft measures is obtained through a public comment period as well as direct solicitation of comments from a panel of consumer, purchaser, and patient representatives convened specifically for this purpose. All comments received are reviewed by the experts and the measure specifications are adjusted as needed. Other external review groups (i.e. focus groups) may be convened if there are any remaining concerns related to the content validity of the measures.

**2b2.3 Testing Results** (Statistical results, assessment of adequacy in the context of norms for the test conducted; if face validity, describe results of systematic assessment):

The aforementioned panel was asked to rate their agreement with the following statement:

The scores obtained from the measure as specified will accurately differentiate quality across providers.

Scale 1-5, where 1=Strongly Disagree; 3=Neither Disagree nor Agree; 5=Strongly Agree

(A) Results for Future Fall Risk

The results of the expert panel rating of the validity statement were as follows:

N = 23; Mean rating = 4.30

Frequency Distribution of Ratings

1 - 0 (Strongly Disagree)

2 - 0

3 - 4 (Neither Disagree nor Agree)

4 - 8

5 - 11 (Strongly Agree)

(B) Results for Risk Assessment for Falls

The results of the expert panel rating of the validity statement were as follows:

N = 23; Mean rating = 4.39

Frequency Distribution of Ratings

1 - 0 (Strongly Disagree)

2 - 0

3 - 4 (Neither Disagree nor Agree)

4 - 6

5 - 13 (Strongly Agree)

(C) Plan of Care for Falls

The results of the expert panel rating of the validity statement were as follows:

N = 23 Mean rating = 4.35

Frequency Distribution of Ratings

1 - 0 (Strongly Disagree)

2 - 0

3 - 4 (Neither Disagree nor Agree)

4 - 7

5 - 12 (Strongly Agree)

**POTENTIAL THREATS TO VALIDITY.** (*All potential threats to validity were appropriately tested with adequate results.*)

**2b3. Measure Exclusions.** (*Exclusions were supported by the clinical evidence in 1c or appropriately tested with results demonstrating the need to specify them.*)

**2b3.1 Data/Sample for analysis of exclusions** (*Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*):  
The effect of measure exclusions was conducted on the entire sample of patients included in the field test.

**2b3.2 Analytic Method** (*Describe type of analysis and rationale for examining exclusions, including exclusion related to patient preference*):

Exclusions tested included medical and patient reasons. Exclusions were analyzed for frequency and variability across providers.

**2b3.3 Results** *(Provide statistical results for analysis of exclusions, e.g., frequency, variability, sensitivity analyses):*

(A) Screening for Future Fall Risk

The exclusions rate for this rate was 1.40%. The primary reason found for applying an exclusion in this population was due to a previous patient fall assessment performed by a provider.

(B) Multifactorial Risk Assessment for Falls:

The exclusion rate for this rate was 20.00% (18 out of 90). The primary reason found for applying an exclusion in this population was due to a previous patient fall assessment performed by a provider.

(C) Plan of Care to Prevent Future Falls

The exclusion rate for this measure was 0.00%.

**2b4. Risk Adjustment Strategy.** *(For outcome measures, adjustment for differences in case mix (severity) across measured entities was appropriately tested with adequate results.)*

**2b4.1 Data/Sample** *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):*

N/A

**2b4.2 Analytic Method** *(Describe methods and rationale for development and testing of risk model or risk stratification including selection of factors/variables):*

N/A

**2b4.3 Testing Results** *(Statistical risk model: Provide quantitative assessment of relative contribution of model risk factors; risk model performance metrics including cross-validation discrimination and calibration statistics, calibration curve and risk decile plot, and assessment of adequacy in the context of norms for risk models. Risk stratification: Provide quantitative assessment of relationship of risk factors to the outcome and differences in outcomes among the strata):*

N/A

**2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to justify lack of adjustment:** N/A

**2b5. Identification of Meaningful Differences in Performance.** *(The performance measure scores were appropriately analyzed and discriminated meaningful differences in quality.)*

**2b5.1 Data/Sample** *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):*

(A) Screening for Future Fall Risk

This measure is also used in the CMS Physician Quality Reporting Initiative (PQRI):

1,050,888 cases were reported for the 2008 program (the most recent year for which data is available).

(B&C) Risk Assessment for Falls & Plan of Care to prevent future falls

This measure was used in the CMS Physician Quality Reporting System (PQRS) 2009 and 2010 claims and Registry options. The following information is for the 2009 program, the only year for which such data is available. There were 427,022 cases were reported on from 2009 data.

**2b5.2 Analytic Method** *(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance):*

(A) Screening for Future Fall Risk

For the CMS PQRI the inter-quartile range (IQR) was calculated to determine the variability in performance



on the measure between the different participating entities.

(b&C) Risk Assessment for Falls Form & Plan of Care for Falls:

For the CMS PQRS, the mean performance rate was calculated from the number of eligible professionals submitting reports for the 2009 measurement year.

**2b5.3 Results** (Provide measure performance results/scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance):

(A) Screening for Future Fall Risk Form:

Clinical Condition and Measure: PQRI #04 Screening for Future Fall Risk

# Eligible Professionals: 578,391

# Professionals Reporting: 8,702

% Professionals Reporting: 1.50%

# Professionals Reporting >=80% of eligible instances: 3,045

% Professionals Reporting >=80% of eligible instances: 34.99%

10th percentile: 3.97 %

25th percentile: 20.25 %

50th percentile: 59.22 %

75th percentile: 87.18 %

90th percentile: 97.62 %

The inter-quartile range (IQR) provides a measure of the dispersion of performance. The IQR is 66.93, and indicates that 50% of physicians have performance on this measure ranging from 20.25% and 87.18%. A quarter of reporting physicians have performance on this measure which is greater than 87.18%, while a quarter have performance on this measure less than 20.25%.

(B) Risk Assessment for Falls

Clinical Condition and Measure: PQRS #154 Falls: Risk Assessment

Mean Performance Rate: 88.23%

# Eligible Professionals: 605, 832

# Professionals Reporting >1 Valid QDC: 7,951

% Professionals Reporting >1 Valid QDC: 1.31%

# Professionals Reporting Satisfactorily Reporting: 2,278

% Professionals Reporting Satisfactorily Reporting: 28.65%

(C) Plan of Care for Falls

Clinical Condition and Measure: PQRS #155 Falls: Plan of Care

Mean Performance Rate: 86.80%

# Eligible Professionals: 6,810

# Professionals Reporting >1 Valid QDC: 3,183

% Professionals Reporting >1 Valid QDC: 46.74%

# Professionals Reporting Satisfactorily Reporting: 2,262

% Professionals Reporting Satisfactorily Reporting: 71.07%

**2b6. Comparability of Multiple Data Sources/Methods.** (If specified for more than one data source, the various approaches result in comparable scores.)

**2b6.1 Data/Sample** (Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):

N/A

**2b6.2 Analytic Method** (*Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure*):

N/A

**2b6.3 Testing Results** (*Provide statistical results, e.g., correlation statistics, comparison of rankings; assessment of adequacy in the context of norms for the test conducted*):

N/A

**2c. Disparities in Care: H  M  L  I  NA**  (*If applicable, the measure specifications allow identification of disparities.*)

**2c.1 If measure is stratified for disparities, provide stratified results** (*Scores by stratified categories/cohorts*): The measure is not stratified.

**2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:**

N/A

**2.1-2.3 Supplemental Testing Methodology Information:**

**Steering Committee: Overall, was the criterion, *Scientific Acceptability of Measure Properties*, met? (*Reliability and Validity must be rated moderate or high*) Yes  No**   
Provide rationale based on specific subcriteria:

**If the Committee votes No, STOP**

### 3. USABILITY

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (**evaluation criteria**)

**C.1 Intended Actual/Planned Use** (*Check all the planned uses for which the measure is intended*): Professional Certification or Recognition Program, Public Reporting, Quality Improvement (Internal to the specific organization), Quality Improvement with Benchmarking (external benchmarking to multiple organizations)

**3.1 Current Use** (*Check all that apply; for any that are checked, provide the specific program information in the following questions*): Public Reporting, Professional Certification or Recognition Program, Quality Improvement with Benchmarking (external benchmarking to multiple organizations), Quality Improvement (Internal to the specific organization)

**3a. Usefulness for Public Reporting: H  M  L  I**   
(*The measure is meaningful, understandable and useful for public reporting.*)

**3a.1. Use in Public Reporting - disclosure of performance results to the public at large** (*If used in a public reporting program, provide name of program(s), locations, Web page URL(s)*). If not publicly reported in a national or community program, state the reason AND plans to achieve public reporting, potential reporting programs or commitments, and timeline, e.g., within 3 years of endorsement: **[For Maintenance** – *If not publicly reported, describe progress made toward achieving disclosure of performance results to the public at large and expected date for public reporting; provide rationale why continued endorsement should be considered.*]

The three rates in this measure are currently being used in the CMS Physician Quality Reporting System for 2011, and will provide information about clinician participation to the public. This measure was also used in the 2009 and 2010 CMS PQRI programs. The results from the 2009 and 2010 programs can be found on the CMS website:

[http://www.cms.gov/PQRS/01\\_Overview.asp#TopOfPage](http://www.cms.gov/PQRS/01_Overview.asp#TopOfPage)

**3a.2. Provide a rationale for why the measure performance results are meaningful, understandable, and useful for public reporting.** If usefulness was demonstrated (e.g., focus group, cognitive testing), describe the data, method, and results: [The successful use in PQRI supports the feasibility and usability of the measure specification on a national scale and the results indicate that there is significant variation between the 10th and 90th percentiles as well as the results, indicating that there is room for improvement in this critical patient safety area.](#)

**3.2 Use for other Accountability Functions (payment, certification, accreditation).** If used in a public accountability program, provide name of program(s), locations, Web page URL(s): [This measure has been used in the CMS Physician Quality Reporting Initiative \(<https://www.cms.gov/PQRS/>\)](#)

**3b. Usefulness for Quality Improvement: H  M  L  I**

*(The measure is meaningful, understandable and useful for quality improvement.)*

**3b.1. Use in QI.** If used in quality improvement program, provide name of program(s), locations, Web page URL(s):

**[For Maintenance –** *If not used for QI, indicate the reasons and describe progress toward using performance results for improvement].*

[The measure specifications are made freely available on the PCPI website and through the implementation efforts of medical specialty societies.](#)

**3b.2. Provide rationale for why the measure performance results are meaningful, understandable, and useful for quality improvement.** If usefulness was demonstrated (e.g., QI initiative), describe the data, method and results:

[The results from PQRI indicate that there is significant variation between the 10th and 90th percentiles as well as the results, indicating that there is room for improvement in this critical patient safety area.](#)

**Overall, to what extent was the criterion, Usability, met? H  M  L  I**

**Provide rationale based on specific subcriteria:**

#### 4. FEASIBILITY

Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (**evaluation criteria**)

**4a. Data Generated as a Byproduct of Care Processes: H  M  L  I**

**4a.1-2 How are the data elements needed to compute measure scores generated?** *(Check all that apply).*

Data used in the measure are:

[generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition](#)

**4b. Electronic Sources: H  M  L  I**

**4b.1 Are the data elements needed for the measure as specified available electronically** *(Elements that are needed to compute measure scores are in defined, computer-readable fields):* [Some data elements are in electronic sources](#)

4b.2 If ALL data elements are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources: Some administrative data in the measure is captured through electronic systems. This measure has a separate specification for EHR reporting. NQF has asked eMeasures be submitted separately from the administrative measure submission.

4c. Susceptibility to Inaccuracies, Errors, or Unintended Consequences: H  M  L  I

4c.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measurement identified during testing and/or operational use and strategies to prevent, minimize, or detect. If audited, provide results:

We are not aware of any unintended consequences related to the use of this measure.

4d. Data Collection Strategy/Implementation: H  M  L  I

A.2 Please check if either of the following apply (regarding proprietary measures): Proprietary measure

4d.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues (e.g., fees for use of proprietary measures):

The specific costs for implementing or using this measure have not been measured, however the successful use in a national reporting program (PQRI) support the feasibility and utility of the measure concept.

Overall, to what extent was the criterion, *Feasibility*, met? H  M  L  I

Provide rationale based on specific subcriteria:

## OVERALL SUITABILITY FOR ENDORSEMENT

Does the measure meet all the NQF criteria for endorsement? Yes  No

Rationale:

If the Committee votes No, STOP.

If the Committee votes Yes, the final recommendation is contingent on comparison to related and competing measures.

## 5. COMPARISON TO RELATED AND COMPETING MEASURES

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure before a final recommendation is made.

5.1 If there are related measures (either same measure focus or target population) or competing measures (both the same measure focus and same target population), list the NQF # and title of all related and/or competing measures:

0035 : Fall Risk Management

0141 : Patient Fall Rate

0202 : Falls with injury

0537 : Multifactor Fall Risk Assessment Conducted in Patients 65 and Older

5a. Harmonization

5a.1 If this measure has EITHER the same measure focus OR the same target population as NQF- endorsed measure(s): Are the measure specifications completely harmonized? No

**5a.2 If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden:**  
[SEE 5B1 FOR MORE INFORMATION.](#)

**5b. Competing Measure(s)**

**5b.1 If this measure has both the same measure focus and the same target population as NQF-endorsed measure(s):**

**Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible):**

[NQF# 0141](#) measures patient fall rate in the hospital setting during one month. This measure is related but not competing. The target population is different ([#0141](#) – adults in the hospital setting) and the measure concept is different ( [#0141](#) rate of falls outcome measure).

[NQF #0202](#) measures patient fall with injury rate in the hospital setting. This measure is related by not competing. The target population is different ([#0202](#) – adults in the hospital setting) and the measure concept is different ([#0202](#) – rate of falls with injury outcome measure).

[NQF #0537](#) measures risk assessment for falls in the home health setting. This measure is related by not competing. The target population overlap; however the level of analysis and data source are different. [NQF #0537](#) focuses on patient in the home health setting and uses a survey data sources (OASIS).

[NQF #0035](#) measures falls risk management for all individuals across settings. This measure is related but not competing. The target population is the same; however the level of analysis and data source are different. [NQF #0035](#) is a health plan level measure and uses patient reported information.

5b.1.No competing measures.

**CONTACT INFORMATION**

**Co.1 Measure Steward (Intellectual Property Owner):** [National Committee for Quality Assurance, 1100 13th Street NW, Suite 1000, Washington, District Of Columbia, 20005](#)

**Co.2 Point of Contact:** [Bob, Rehm, Assistant Vice President, Performance Measurement, Rehm@ncqa.org, 202-955-1728-](#)

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**Co.6 Additional organizations that sponsored/participated in measure development:**  
[This measure was developed with the cooperation of the American Geriatrics Society, the National Committee for Quality Assurance and the American Medical Association.](#)

**Co.7 Public Contact:** [Bob, Rehm, Assistant Vice President, Performance Measurement, Rehm@ncqa.org, 202-955-1728-, National Committee for Quality Assurance](#)

## ADDITIONAL INFORMATION

### Workgroup/Expert Panel involved in measure development

#### Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

The expert panel consists of 33 members, whose specialties include internal medicine, geriatrics, anesthesia, orthopedic surgery, physical medicine & rehabilitation, neurology, palliative medicine, urology, geriatric psychiatry, emergency medicine, nephrology, radiation oncology, ophthalmology, medical epidemiology, methodology, hospital medicine, family medicine, and bioethics.

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See Guidance for Definitions of Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable

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**Ad.2 If adapted, provide title of original measure, NQF # if endorsed, and measure steward. Briefly describe the reasons for adapting the original measure and any work with the original measure steward:**

**Measure Developer/Steward Updates and Ongoing Maintenance**

**Ad.3 Year the measure was first released:** 2010

**Ad.4 Month and Year of most recent revision:** 06, 2010

**Ad.5 What is your frequency for review/update of this measure?** Every three years

**Ad.6 When is the next scheduled review/update for this measure?** 2013

**Ad.7 Copyright statement:** Physician Performance Measures (Measures) and related data specifications, developed by the American Medical Association (AMA) in collaboration with the Physician Consortium for Performance Improvement (the Consortium) and the National Committee for Quality Assurance (NCQA) pursuant to government sponsorship under subcontract 6205-05-054 with Mathematica Policy Research, Inc. under contract 500-00-0033 with Centers for Medicare & Medicaid Services.

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**Ad.9 Additional Information/Comments:** N/A

**Date of Submission (MM/DD/YY):** 09/14/2011