

AN EDUCATIONAL RESOURCE ABOUT POST-FRACTURE CARE IN PATIENTS WITH OSTEOPOROSIS

FOR CASE MANAGERS, ADMINISTRATORS, AND PATIENT NAVIGATORS

Help optimize post-fracture care in patients with osteoporosis and reduce the risk of subsequent fractures





Designed to help you in the day-to-day management of patients with osteoporosis-related fractures

THIS EDUCATIONAL RESOURCE IS DESIGNED TO HELP:

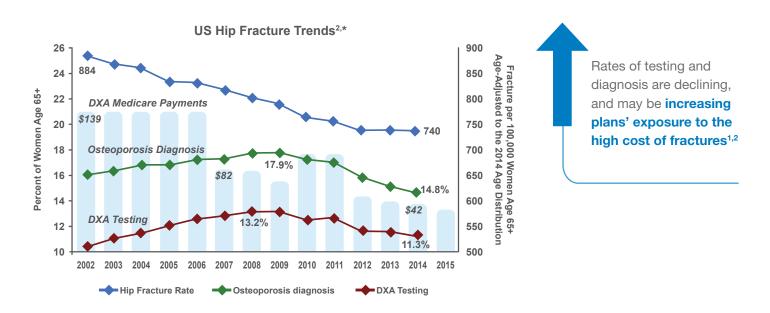
- Highlight the economic and clinical burden of osteoporosis-related fractures
- Define the clinical, psychological, and social burdens of osteoporosis-related fractures on patients
- Review relevant Healthcare Effectiveness
 Data and Information Set (HEDIS®) and
 Centers for Medicare & Medicaid Services
 (CMS) quality measures
- Highlight tools to overcome barriers and challenges in patient management



This educational resource aims to provide information that may help impact subsequent fracture reduction in patients with osteoporosis

Experts acknowledge there is a crisis in osteoporosis management¹

POSTMENOPAUSAL OSTEOPOROSIS DIAGNOSIS RATES HAVE BEEN DECLINING SINCE 2009, EVEN AS A DECLINE IN HIP FRACTURES HAVE PLATEAUED^{2,*}



The increase in fracture-related expenses is likely to outweigh the modest savings from decreased DXA reimbursement and fewer DXAs performed²

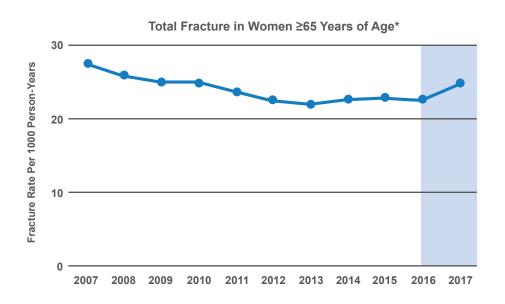
DXA=dual-energy X-ray absorptiometry.

References: 1. The American Society for Bone and Mineral Research. Call to action to address the crisis in the treatment of osteoporosis. https://www.asbmr.org/Assets/d5139738-e1b3-4645-859a-96affc059ae3/636098972158530000/call-to-action-to-address-the-crisis-in-the-treatment-of-osteoporosis-final-003-pdf. Accessed February 17, 2021. **2.** Lewiecki EM, Adler R, Curtis J, et al. Hip fractures and declining DXA testing: at a breaking point? Poster presented at: Annual Meeting of the American Society for Bone and Mineral Research; September 16-19, 2016; Atlanta, GA.

^{*}Adapted from: Lewiecki EM et al.

Osteoporosis-related fracture rates are on the rise¹

MORE RECENT DATA SHOWS AN INCREASE IN FRACTURE RATES¹



Total fracture rates
increased beginning
in 2016 across various
fracture sites including
spine, hip, and radius/ulna,
among other fracture sites

Increased age- and sex-adjusted US fracture rates supports the global call to action to increase screening and treatment of osteoporosis in older adults

Reference: 1. Lewiecki EM, Chastek B, Sundquist K, et al. Osteoporotic fracture trends in a population of US managed care enrollees from 2007 to 2017. Osteoporos Int. 2020;31:1299-1304.

^{*}Includes fractures of the ankle, carpal/wrist, hip, femur, pelvis, radius/ulna, shoulder, spine, tibia/fibula, or multiple sites.1

Osteoporosis-related fractures require considerable healthcare resource utilization^{1,2}



Someone in the US breaks their hip every 2 minutes^{3,*}



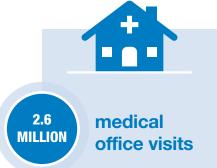
1 in 2 women and up to 1 in 4 men over the age of 50 will have a fracture related to osteoporosis in their remaining lifetime^{1,4}

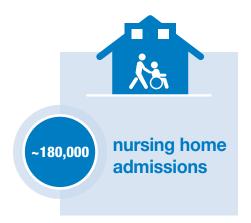


Every year, there are 1.5 million osteoporosis-related fractures in the United States¹

LEADING TO^{1,2}:







Among women 55 years of age, hospitalizations from 2000 to 2011 were highest for osteoporosis-related fractures when compared with myocardial infarction (MI), stroke, and breast cancer⁵

References: 1. US Department of Health and Human Services. Bone Health and Osteoporosis: A Report of the Surgeon General. Rockville, MD: US Department of Health and Human Services, Office of the Surgeon General, 2004. 2. Cosman F, de Beur SJ, LeBoff MS, et al. Clinician's guide to prevention and treatment of osteoporosis. Osteoporos Int. 2014;25:2359-2381. 3. Agency for Healthcare Research and Quality. HCUPnet - hospital inpatient national statistics. https://hcupnet.ahrq.gov#query/eyJBTkFMWVNJU19UWVBFljpblkFUX1EiXSwi WUVBUIMiOI siWVJfMjAxNCJdLCJDQVRFR09SSVpBVEIPTI9U WVBFljpblkNUX0NDU0QiXSwiUVVJQ0tUQUJMRV9UWVBFljpbllFUVF9ERVQiXSwiREFUQVNFVF9TT1VSQ0UiOIsiRFNfTkiTll19. Accessed February 17, 2021. 4. National Osteoporosis Foundation. Just for men. https://www.nof.org/preventing-fractures/general-facts/just-for-men/. Accessed February 17, 2021. 5. Singer A, Exuzides A, Spangler L, et al. Burden of illness for osteoporotic fractures compared with other serious diseases among postmenopausal women in the United States. Mayo Clin Proc. 2015;90:53-62.

^{*}The data was derived from an HCUPnet—Hospital Inpatient National Statistics query and represents the total number of hip fractures per year. The results do not list the specific causes of the fractures.³

Initial fractures increase the risk of more costly subsequent fractures1

MANAGING AN INITIAL FRACTURE IS IMPORTANT IN REDUCING THE RISK OF **SUBSEQUENT FRACTURES**¹



increased risk

of a subsequent fracture in patients who have experienced an initial fracture²



greater chance that postmenopausal women will

suffer another fracture within the first year of an osteoporosisrelated fracture, and the risk remains elevated over time³



greater medical cost

for those who experienced a second fracture compared to those who experienced one fracture⁴



incremental direct medical costs during

the 180-day period after a subsequent osteoporosisrelated fracture1,*

By 2025, osteoporosis-related fractures and costs are projected to increase to more than 3 million fractures annually and incur \$25.3 billion in annual direct healthcare costs⁵

References: 1. Hansen D, Bazell C, Pelizzari P, Pyenson B. Milliman Research Report. Medicare cost of osteoporotic fractures. http://assets.milliman.com/ektron/Medicare cost_of_osteoporotic_fractures.pdf. Accessed November 6, 2020. 2. Kanis JA, Johnell O, De Laet C, et al. A meta-analysis of previous fracture and subsequent fracture risk. Bone. 2004;35:375-382. 3. van Geel TACM, van Helden S, Geusens PP, Winkens B, Dinant G-J. Clinical subsequent fractures cluster in time after first fractures. Ann Rheum Dis. 2009;68:99-102. 4. Song X, Shi N, Badamgarav E, et al. Cost burden of second fracture in the US health system. Bone. 2011;48:828-836. 5. Burge R, Dawson-Hughes B, Solomon DH, Wong JB, King A, Tosteson A. Incidence and economic burden of osteoporosis-related fractures in the United States, 2005-2025. J Bone Miner Res. 2007;22:465-475.

^{*}Adjusted for differences in risk characteristics between populations of Medicare FFS beneficiaries with a new osteoporosisrelated fracture who had a subsequent fracture and those who did not.1

Select risk factors for osteoporosis-related fracture include^{1,2}:



Age ≥ 65



Low Bone Density (T-score ≤ -2.5)



Parental history of hip fracture



Previous fragility fracture



Immobilization



Low BMI



Risk of falling



Long-term glucocorticoid use



Cigarette smoking

A bone mineral density (BMD) test* is an important intervention that can help with diagnosis and prognosis over time^{3,†}

References: 1. Camacho PM, Petak SM, Binkley N, et al. American Association of Clinical Endocrinologists/American College of Endocrinology clinical practice guidelines for the diagnosis and treatment of postmenopausal osteoporosis. *Endocr Pract.* 2020;26(suppl 1):1-46. **2.** Cosman F, de Beur SJ, LeBoff MS, et al. *Osteoporos Int.* 2014;25:2359-2381. **3.** US Department of Health and Human Services. Bone Health and Osteoporosis: A Report of the Surgeon General. 2004. https://www.ncbi.nlm.nih.gov/books/n/rptosteo/pdf. Accessed February 17, 2021. **4.** National Osteoporosis Foundation. Bone density exam/testing. 2020. https://www.nof.org/patients/diagnosisinformation/bone-density-examtesting/. Accessed February 17, 2021.

^{*}Dual-energy X-ray absorptiometry.3

[†]The National Osteoporosis Foundation recommends a BMD test for women aged 65 or older, men aged 70 or older, and postmenopausal women under age 65 and men above age 50-69 with risk factors. In order to monitor patients, BMD testing should be performed 1 to 2 years after initiating medical therapy for osteoporosis and every 2 years thereafter.^{2,4}

Osteoporosis-related fractures can result in substantial burden for patients¹⁻⁴

POSSIBLE IMPACT¹⁻³

Examples



Limited activity



Pain at the fracture site



Potential complications during hospitalization (due to hip fracture)

A formalized post-fracture care program, such as an FLS, may be associated with post-fracture treatment rates higher than typical rates^{5,6}

References: 1. Colón-Emeric CS, Saag KG. Osteoporotic fractures in older adults. *Best Pract Res Clin Rheumatol.* 2006;20(4):695-706. 2. Dempster DW. Osteoporosis and the burden of osteoporosis-related fractures. *Am J Manag Care.* 2011;17:S164-S169. 3. Cosman F, de Beur SJ, LeBoff MS, et al. *Osteoporos Int.* 2014;25:2359-2381. 4. Inacio MCS, Weiss JM, Miric A, et al. A community-based hip fracture registry: population, methods, and outcomes. *Perm J.* 2015;19:29-36. 5. Capture the Fracture. What is a post fracture care coordination program (PFC)? https://www.capturethefracture.org/what-is-a-pfc. Accessed February 1, 2021. 6. Newman ED. Perspectives on pre-fracture intervention strategies: the Geisinger Health System Osteoporosis Program. *Osteoporos Int.* 2011;22:S451-S455.

Quality measures can help guide best practices in post-fracture care¹

IN POST-FRACTURE MANAGEMENT, QUALITY MEASURES ARE PROVIDED BY HEDIS®, THE CMS FIVE-STAR QUALITY RATING SYSTEM, AND THE CMS QUALITY PAYMENT PROGRAM (QPP)¹



Health Plans: National Committee for Quality Assurance HEDIS¹:

 Osteoporosis management in women who had a fracture assesses women 65-85 years of age who suffered a fracture and who had either a BMD test or a prescription for a drug to treat osteoporosis in the 6 months after the fracture

83% of women with postmenopausal osteoporosis who experienced a fracture <u>did not get</u> <u>treated for the underlying disease</u> of osteoporosis within 6 months following a fracture^{2,*}



Medicare Advantage Plans: CMS Five-Star Quality Rating System³

- Osteoporosis management in women who had a fracture measures
 the percentage of female plan members who broke a bone and got screening
 or treatment for osteoporosis within 6 months
- Reducing the risk of falling measures the percentage of plan members with a problem falling, walking, or balancing who discussed it with their doctor and received a recommendation for how to prevent falls during the year
- Medication therapy management (MTM) program completion rate for comprehensive medication review (CMR) measures how many members in the program had an assessment of their medications from the plan

The osteoporosis management quality measure, in women who had a fracture, has been one of the lowest Medicare Part C quality measures in each of the last 4 years between 2017 and 2020⁴

HEDIS=Healthcare Effectiveness Data and Information Set.

*Study period July 1, 2010, through June 30, 2014, and included women 67-85 years of age who experienced one or more fracture and received a prescription for antiosteoporosis medication with or without a BMD test. Patients had continuous Humana MAPD enrollment 12 months prior and 6 months after the fracture.

References: 1. National Committee for Quality Assurance. Osteoporosis testing and management in older women (0T0, 0MW). https://www.ncqa.org/hedis/measures/osteoporosis-testing-and-management-in-older-women/. Accessed February 17, 2021. 2. Boytsov NN, Crawford AG, Hazel-Fernandez LA, et al. Patient and provider characteristics associated with optimal post-fracture osteoporosis management. *Am J Med Qual.* 2017;32:644-654. 3. Centers for Medicare & Medicaid Services. https://www.cms.gov/Medicare/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescription-Drug-Coverage/Prescri

Quality measures can help guide best practices in post-fracture care (cont'd)

PROVIDERS: CMS QUALITY PAYMENT PROGRAM (QPP)



Clinical Quality Measures (CQMs)1-4:

- Communication with the physician or other clinician managing ongoing care post-fracture for men and women aged 50 years and older assesses the percentage of patients treated for a fracture with documentation of communication between the treating physician and the physician managing the patient's ongoing care, that a fracture occurred and that the patient was or should be considered for osteoporosis treatment or testing¹
- Falls risk assessment measures the percentage of patients aged 65 years and older with a history of falls who had a risk assessment for falls completed within 12 months²
- Osteoporosis management in women who had a fracture assesses the percentage
 of women aged 50-85 who suffered a fracture in the 6 months prior to the performance
 period through June 30 of the performance period and who either had a BMD test
 or received a prescription for a drug to treat osteoporosis in the 6 months after the
 fracture³
- Screening for osteoporosis for women aged 65-85 years measures the percentage
 of female patients aged 65-85 years of age who ever had a central dual-energy X-ray
 absorptiometry (DXA) to check for osteoporosis⁴

References: 1. Centers for Medicare & Medicaid Services Quality Payment Program Quality Measures. https://qpp.cms.gov/docs/QPP_quality_measure_specifications/CQM-Measures/2019_Measure_024_MIPSCQM.pdf. Accessed February 17, 2021. 2. Centers for Medicare & Medicaid Services Quality Payment Program Quality Measures. https://qpp.cms.gov/docs/QPP_quality_measure_specifications/CQM-Measures/2020_Measure_154_MIPSCQM.pdf. Accessed February 17, 2021. 3. Centers for Medicare & Medicaid Services Quality Payment Program Quality Measures. https://qpp.cms.gov/docs/QPP_quality_measure_specifications/CQM-Measures/2019_Measure_418_MIPSCQM.pdf. Accessed February 17, 2021. 4. National Committee for Quality Assurance. https://www.ncqa.org/hedis/measures/transitions-of-care/. Accessed February 17, 2021.

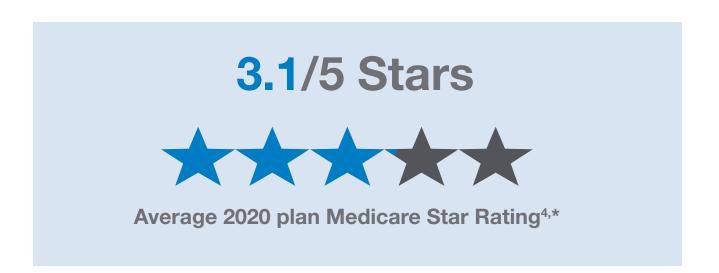
Many Medicare female patients 65-85 years of age are not receiving appropriate osteoporosis testing or treatment despite quality measures¹⁻³

OSTEOPOROSIS MANAGEMENT QUALITY MEASURES TESTING AND TREATMENT RATES IN WOMEN WHO HAD A FRACTURE

Percentage of Medicare female patients 65-85 years of age <u>not receiving</u> osteoporosis testing or treatment within 6 months of a fracture







HEDIS=Healthcare Effectiveness Data and Information Set; PPO=preferred provider organization.

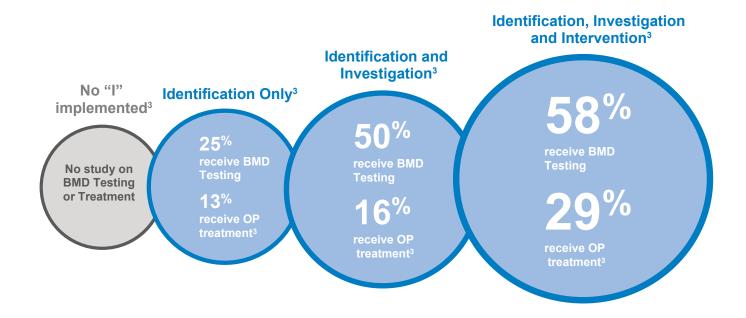
*3.1 equates to 48% receiving testing or treatment within 6 months of a fracture.1

HEDIS is a registered trademark of the National Committee for Quality Assurance.

References: 1. Centers for Medicare & Medicaid Services. https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/Downloads/Star-Ratings-Technical-Notes-Oct-10-2019.pdf. Accessed February 17, 2021. 2. National Committee for Quality Assurance. https://www.ncqa.org/hedis/measures/osteoporosis-testing-and-management-in-older-women/. Accessed February 17, 2021. 3. National Committee for Quality Assurance. https://www.coordinatedcarehealth.com/content/dam/centene/Coordinated%20Care/provider/PDFs/QI/508-WA-HEDIS-QuickRefGuide.pdf. Accessed February 17, 2021. 4. Centers for Medicare & Medicaid Services. https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/Downloads/2020-Star-Ratings-Fact-Sheet-.pdf. Accessed February 17, 2021.

Improving patient outcomes begins with the three "I"s1,2





References: 1. Hansen D, Bazell C, Pelizzari P, Pyenson B. Milliman Research Report. Medicare cost of osteoporotic fractures. http://assets.milliman.com/ektron/Medicare_cost_of_osteoporotic_fractures.pdf. Accessed February 17, 2021. 2. Cosman F, de Beur SJ, LeBoff MS, et al. Clinician's guide to prevention and treatment of osteoporosis. *Osteoporos Int.* 2014;25:2359-2381. 3. Seibel M, Mitchell P. Secondary Fracture Prevention: An International Perspective. California, United States. Elsevier Academic Press; 2018.

Provider knowledge and awareness of current post-fracture recommendations are important for patient care¹

PATIENT ASSESSMENT

- Track administrative data to identify patients who have had a fracture²
 - For example, use ICD-10 M80 Osteoporosis with current pathological fracture (M80.00, M80.03, M80.05 depending on site of fracture)³
- In the hospital setting, physicians and qualified healthcare professionals will identify patients receiving care as inpatients for a likely fragility fracture using DRG codes; and for Medicare patients, MS-DRG codes^{4,5,*}
- Additional codes for consideration include evaluation and management codes. These codes can be used to capture additional time in the inpatient setting as well as used in the outpatient office setting, and include services like6:
 - Reviewing medical history
 - Conducting an exam
 - Medical decision making and counseling
- Determine if a DXA scan was initially conducted and follow up with the patient's healthcare provider if it was not²
- Determine if appropriate medications were prescribed²
- Conduct a comprehensive initial assessment of^{2,7,8}:
 - Patient's risk factors for osteoporosis, including factors such as age (over 65 years old), parental history of hip fracture, and low BMI^{7,8}
 - Patient's home environment to determine the risk of falls and educate them on ways to mitigate the risks²
 - Patient's current physical activity and encourage and educate them on the importance of an appropriate exercise regimen in bone health²
 - Patient's tobacco use and educate them on the risk of tobacco use on bone health and programs available to help with smoking cessation²

*The information provided in this guide is of a general nature and for informational purposes only. Coding and coverage policies change periodically and often without warning. The responsibility to determine coverage and reimbursement parameters, and appropriate coding for a particular patient and/or procedure, is always the responsibility of the provider or physician. The information provided in this guide should in no way be considered a guarantee of coverage or reimbursement for any product or service.

References: 1. National Committee for Quality Assurance. Osteoporosis testing and management in older women (OTO, OMW). https://www.ncqa.org/hedis/ measures/osteoporosis-testing-and-management-in-older-women/. [ADD ACCESS DATE] 2. Department of Health and Human Services. Bone Health and Osteoporosis: A Report of the Surgeon General.2004. https://www.ncbi.nlm.nih.gov/books/n/rptosteo/pdf. Accessed February 17, 2021. 3. ICD10Data.com. Osteoporosis with current pathological fracture (M80). https://www.icd10data.com/ICD10CM/Codes/M00-M99/M80-M85/M80-. Accessed February 17, 2021. 4. Hansen D, Bazell C, Pelizzari P, Pyenson B. Milliman Research Report. Medicare cost of osteoporotic fractures. http://assets.milliman.com/ektron/Medicare_cost_of_osteoporotic_fractures.pdf. Accessed February 17, 2021. 5. Centers for Medicare & Medicaid Services. MS-DRG classifications and software. https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/ MS-DRG-Classifications-and-Software. Accessed February 17, 2021. 6. Centers for Medicare & Medicaid Services. Evaluation and management services guide. https://www. cms.gov/outreach-and-education/medicare-learning-network-mln/mlnproducts/downloads/eval-mgmt-serv-quide-icn006764.pdf. February 17, 2021. 7. Camacho PM, Petak SM, Binkley N, et al. American Association of Clinical Endocrinologists/American College of Endocrinology clinical practice guidelines for the diagnosis and treatment of postmenopausal osteoporosis. Endocr Pract. 2020;26:1-46. 8. Cosman F, de Beur SJ, LeBoff MS, et al. Clinician's guide to prevention and treatment of osteoporosis. Osteoporos 13 *Int.* 2014;25:2359-2381.

Provider knowledge and awareness of current post-fracture recommendations are important for patient care (cont'd)

PATIENT EDUCATION AND CONSULTATION

- Educate the patient on the importance of treatment adherence¹
- Consider implementing a process that allows for timely post-discharge follow-up of patient to ensure proper transition of care²
- Provide information regarding evidence-based falls prevention programs for patients and caregivers^{1,3}

MONITOR AND COLLABORATE

- Incorporate care coordination to facilitate the appropriate delivery of health care services
 - Care coordination is the deliberate organization of patient care activities and sharing of information among care givers⁴
 - One of the primary goals of care coordination efforts is a high-quality referral or transition⁵
- Check in periodically to identify any changes from your initial assessment¹
- Remind patients, caregivers, and their providers about routine screenings with a DXA scan every 1-2 years and patient adherence to medications^{1,6}

References: 1. Department of Health and Human Services. Bone Health and Osteoporosis: A Report of the Surgeon General. 2004. https://www.ncbi.nlm.nih.gov/books/n/rptosteo/pdf. Accessed February 17, 2021. 2. The Joint Commission. Transitions of Care: The need for a more effective approach to continuing patient care. https://www.jointcommission.org/-/media/deprecated-unorganized/imported-assets/tjc/system-folders/topics-library/hot_topics_transitions_of_carepdf.pdf?db=web&hash=CEFB254D5EC36E4FFE30ABB20A5550E0. Accessed February 17, 2021. 3. National Council on Aging. Evidence-based falls prevention programs: saving lives, saving money. https://d2mkcg26uvg1cz.cloudfront.net/wp-content/uploads/2017-Evidence-Based-Falls-Programs-Infographic.pdf. Accessed February 17, 2021. 4. Chapter 2. What is Care Coordination? Content last reviewed June 2014. Agency for Healthcare Research and Quality, Rockville, MD. https://www.ahrq.gov/ncepcr/care/coordination/atlas/chapter2.html. Accessed February 17, 2021. 5. Safety Net Medical Home Initiative. Implementation guide. Reducing care fragmentation in primary care. http://www.safetynetmedicalhome.org/sites/default/files/Implementation-Guide-Care-Coordination.pdf. Accessed February 17, 2021. 6. National Osteoporosis Foundation. Bone density exam/testing. 2020. https://www.nof.org/patients/diagnosis-information/bone-density-examtesting/. Accessed February 17, 2021.

Narrowing the care gap can help eliminate barriers to care and reduce patient burden

BARRIERS TO IMPROVING QUALITY MEASURE PERFORMANCE AND POSSIBLE ACTIONS TO OVERCOME THEM

TYPES OF BARRIERS	EXAMPLES OF QUALITY METRIC THAT COULD BE IMPACTED	QUESTIONS FOR YOU TO CONSIDER	POSSIBLE ACTIONS
Lack of knowledge of risk factors for osteoporosis-related fracture (eg, falls and inactivity)	Reducing the risk of falling	Are you up to date on risk factors? ¹	Research risk factors that may delay proper diagnosis and management
Miscommunication	Communication with the physician or other clinician managing ongoing care post fracture for men and women aged 50 years and older	Who is responsible for initiating management of the patient with osteoporosis? ²	Determine responsibility for healthcare provider, such as orthopedic surgeon, hospitalist, primary care physician, etc
Treatment gaps	Osteoporosis management in women who had a fracture	Is the care plan appropriate? ³ Is proper screening occurring in a timely manner? ³	Ensure appropriate post- fracture management and screening have been completed, including a DXA scan
Medication adherence	Medication Therapy Management Program completion rate for Comprehensive Medication Reviews	Is the patient having their prescription filled? ¹	Educate the patient on the importance of taking the prescribed medication and recommended supplements. Use motivational interviewing skills to identify and address adherence obstacles

References: 1. Department of Health and Human Services. Bone Health and Osteoporosis: A Report of the Surgeon General. 2004. https://www.ncbi.nlm.nih.gov/books/n/rptosteo/pdf. Accessed February 17, 2021. **2.** Majumdar SR, Beaupre LA, Harley CH, et al. Use of a case manager to improve osteoporosis treatment after hip fracture: results of a randomized controlled trial. *Arch Intern Med.* 2007;167:2110-2115. **3.** Curtis JR, Adachi JD, Saag KG. Perspective: bridging the osteoporosis quality chasm. *J Bone Miner Res.* 2009;24:3-7.

Motivational interviewing may inspire patients towards improving self-care and treatment adherence

KEY PRINCIPLE ¹	DESCRIPTION & RATIONALE ¹	POSSIBLE SCENARIOS & ACTIONS
Express empathy	Demonstrating a nonjudgmental attitude will convey acceptance of the patient's feelings and foster a collaborative relationship	If a patient expresses discouragement about taking "so many medications" for multiple chronic conditions, a case manager might say: "Living with several illnesses is not easy, but our treatment team is here to work with you to find ways to cope and identify tools to help you remember to take the medications on time"
Develop a distinction between patients' behavior and their personal goals	Encouraging patients to outline their own reasons for behavior change will encourage them to identify personal motivations to initiate change	If a patient has expressed concerns about staying active, but is reluctant to take medication and vitamins and make lifestyle changes to reduce additional fracture risk, a case manager might ask: "You sound reluctant to try some of the ideas we've discussed to improve your bone health and help prevent another fracture. Yet you've also mentioned how important staying active is for you. What are some of the activities you'd like to keep up with?"
Roll with resistance	Resisting the urge to lecture the patient, acknowledging the patient's preferences, and inviting collaboration will avoid conflict and keep the line of communication open	Some patients don't like receiving shots. For patients with medication(s) that need to be taken as shots who voice those objections, a case manager could say: "Yes, shots are not my favorite, either! But this is the medication that will most likely help, and I know how important staying active is to you. Would you be willing to give it a try?" Resisting the urge to lecture the patient, empathizing with the patient's objections, and connecting the medication with helping the patient meet their goals conveys respect and encouragement for continued participation with care.
Support self-efficacy	Empowering patients' abilities to plan and execute change will communicate their control over their own behavior change	If a patient has a pattern of forgetting to take medication for osteoporosis, a case manager might ask: "When you do take your medication, what helps you remember to take it?" Exploring for individualized cues helps patients identify their own solutions and promotes collaboration to develop effective, personalized strategies and health-affirming habits.

Patient engagement can be facilitated if one guides rather than lectures, encourages rather than reproaches, and negotiates rather than dictates

Post-fracture care management includes patient education and finding ways to help reduce the risk of subsequent fractures¹

Initial osteoporosis-related fractures increase the risk of costly subsequent fractures in Medicare patients¹

Patients with osteoporosis who have experienced a bone fracture should receive a scan and be considered for osteoporosis therapy^{2,3}

- Recommending vitamin D and calcium intake is a part of many treatments^{3,4}
- Adequate, regular exercise can help preserve bone mass and reduce fall risk4

Things to think about for patients who have experienced a fracture:

- Are you screening all post-fracture patients for osteoporosis?
- Are you having regular communication with the primary physician who is managing the patient's ongoing care?
- Are you actively monitoring and managing the patient's care plan following fracture?



AMGEN AND UCB CAN PROVIDE EDUCATIONAL RESOURCES TO SUPPORT PFC. CONTACT YOUR ACCOUNT MANAGER FOR MORE RESOURCES

References: 1. Hansen D, Bazell C, Pelizzari P, Pyenson B. Milliman Research Report. Medicare cost of osteoporotic fractures. http://assets.milliman.com/ektron/Medicare_cost_of_osteoporotic_fractures.pdf. Accessed February 17, 2021. 2. Cosman F, de Beur SJ, LeBoff MS, et al. Clinician's guide to prevention and treatment of osteoporosis. *Osteoporos Int.* 2014;25:2359-2381. 3. Camacho PM, Petak SM, Binkley N, et al. American Association of Clinical Endocrinologists/American College of Endocrinology clinical practice guidelines for the diagnosis and treatment of postmenopausal osteoporosis. *Endocr Pract.* 2020;26:1-46. 4. US Department of Health and Human Services. Bone Health and Osteoporosis: A Report of the Surgeon General. 2004. https://www.ncbi.nlm.nih.gov/books/n/rptosteo/pdf. Accessed February 17, 2021.

