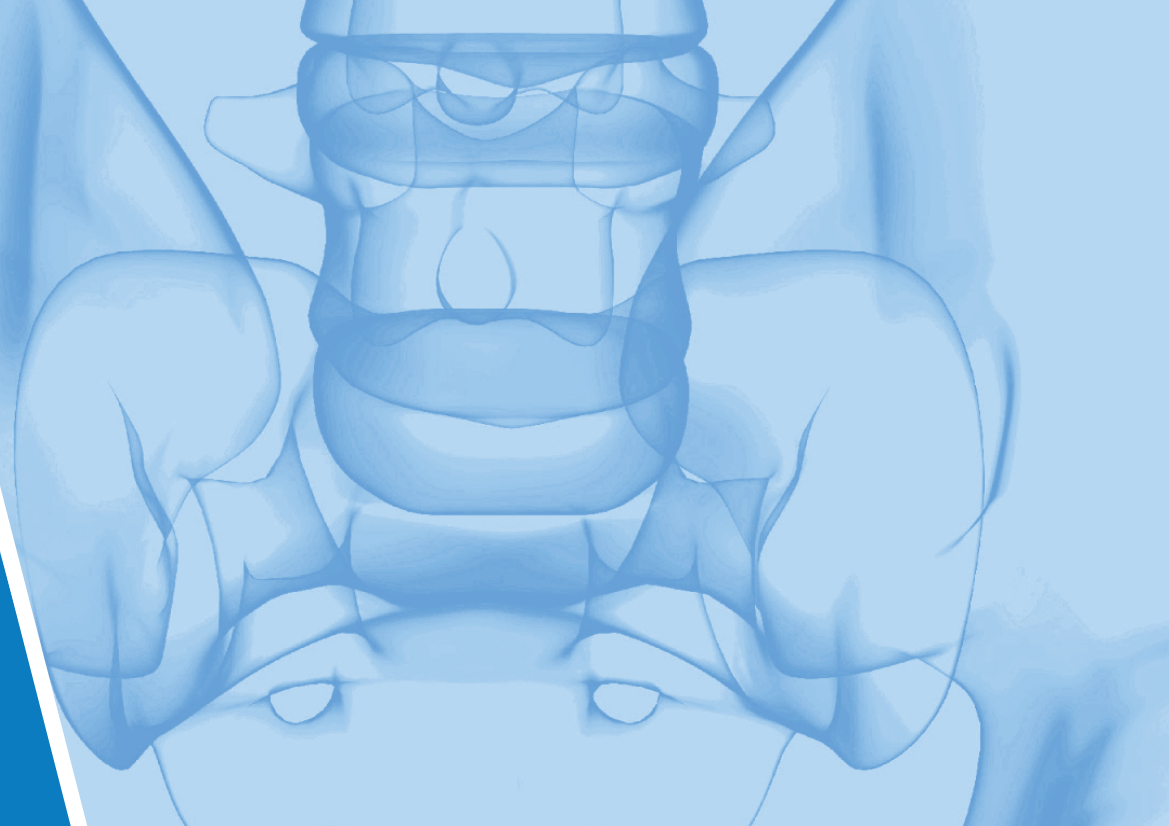For Health Systems
Using Epic

EHR Clinical Dashboards for Post-Fracture Care Programs

Electronic Health Record (EHR) Dashboards
to Assess, Enhance, and Monitor Osteoporosis
Post-Fracture Care Programs

ucb | **AMGEN**®

About This Guide

Amgen has developed this overview guide for educational purposes only, to assist health systems in configuring Epic Clinical Dashboards to assess osteoporosis post-fracture care programs. The next few pages in this document review the importance of a robust post-fracture care program, followed by an overview of what an Epic Clinical Dashboard capability can do to help track progress of a post-fracture care program. **Please note that Amgen does not endorse specific EHR systems.**

This resource provides insights and examples to help clinical decision-makers implement Clinical Dashboards as part of a post-fracture care program that can facilitate post-fracture care for patients with osteoporosis within their organizations. It does not constitute guidance for medical advice or treatment.

The information listed in this resource is based upon Epic's February 2020 version. Functions and features may change as new software versions are released. This resource is meant to serve as summary information only and should not replace detailed instructions provided to you by your internal or external EHR support resources. Screen images shown within represent examples of, and sometimes hypothetical screens, in Epic. Amgen makes no claims or warranties about the applicability or appropriateness of this information.

Provider Organizations Are Urged to Prioritize Post-Fracture Care Follow-up to Help Close the Gap in Osteoporosis Care

The 2020 American Association of Clinical Endocrinology (AACE) guidelines recommend **BMD testing and osteoporosis treatment** for postmenopausal women who have suffered an osteoporotic fracture.[1] Note: according to these guidelines, DXA is not required for osteoporosis diagnosis among patients who have experienced a low trauma fracture of the hip or spine.

Osteoporosis management quality measures such as the **Healthcare Effectiveness Data and Information Set (HEDIS) Osteoporosis Management in Women Who Had a Fracture (OMW)*** and **Merit-based Incentive Payment System (MIPS) #418**[†] measure percentage of female patients receiving osteoporosis testing or treatment within 6 months of a fracture.[2,3]

In 2018 and 2019, the osteoporosis management quality measure has been *one of the lowest quality measures* of all the Part C measures. The average 2021 plan Medicare Star Rating was 3.1[‡] out of 5[4]

[‡]3.1 equates to 48% receiving testing or treatment within 6 months of a fracture.[2]

*Medicare Advantage women enrollees age 67-85.[2]
[†]Women age 50-85.[3]

Osteoporosis Post-Fracture Care Programs May Help Close the Gaps in Care[5]

**POST-FRACTURE CARE PROGRAMS CAN VARY IN INTENSITY OF THE INTERVENTIONS [5,*]**

Type A Model — Identification, assessment, and treatment of patients

Type B Model — Identification and assessment of patients[†]

Type C Model — Alerts to patients and providers

Type D Model — Patient education only

Evidence suggests that intensive models of post-fracture care programs which include elements of **patient identification, assessment, and treatment** are more likely to be effective at improving patient outcome measures (ie, BMD testing and osteoporosis treatment initiation)[5,*]

Overall, there were 56 **additional BMD tests** (**P** < 0.001) and 29 **additional osteoporosis treatment initiations** (**P** < 0.001) per 100 patients in **Type A Models** compared to their respective control groups[5,*]

Results from a study of a Type A Model included in the meta-analysis suggested overall hip fracture relative risk reduction of 37.2% over 3 years, using historical data for comparison.[5,*]

ROBUST POST-FRACTURE CARE PROGRAMS ARE MORE LIKELY TO IMPROVE PATIENT OUTCOME MEASURES[5,*]

Model	BMD Testing	Osteoporosis Treatment Initiation
Type A Model	56	29
Type B Model	50	21
Type C Model	30	16
Type D Model[‡]		3
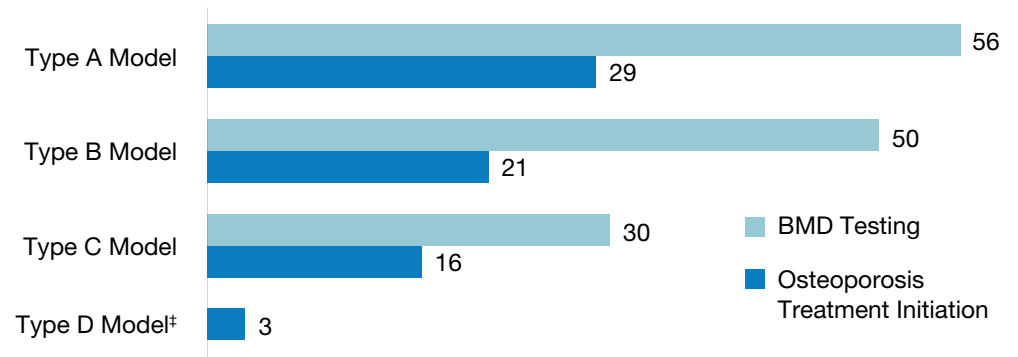
Additional Uptake Per 100 Patients in Post-Fracture Care Program vs. Control Group

*Based on results of a systematic review and meta-analysis of 42 real-world studies, published between 1996 and 2011, describing models of care for secondary prevention of osteoporotic fractures.[5]

[†]Following identification and assessment of people with a minimal trauma fracture, treatment recommendations are made to the primary care physician without initiating the treatment itself.[5]

[‡]In Type D Model osteoporosis treatment initiation, risk difference between intervention group and control group was not significantly different.[5]

Plan-Do-Study-Act (PDSA) Cycles Can Test Whether Changes Lead to Improvement[6]

Plan

Plan it[7]

Implement FLS schedules, staffing, EMR order sets

Buy-in campaign

Data collection planning

Do

Do it[7]

Collect data

Study

Study the Results[7]

Assess outcomes (met-unmet)

Analyze differences across various sites

Act

Act on what is learned[7]

Readjust post-fracture care program

Regroup with staff and physician stakeholders

Example of How EHR Clinical Dashboards Created From Registries Can Help to Visualize Quality Performance[8]

University of Texas Southwestern Medical Center (Kannan et al.) Is an Example of an Organization That Has Created an EHR Clinical Dashboard for Each Specialty Using Registries[8]

The University of Texas Southwestern Medical Center (Kannan et al.) created EHR clinical dashboards using specialty registries.[8] They created patient registries and clinical dashboards, in part, to report on real-time patient care gaps.[8]

An Osteoporosis Registry Included With Epic EHR Software Is Based on HEDIS and MIPS Measures for Osteoporosis Management

Although Kannan et al. does not specifically mention an osteoporosis registry, all Epic users have access to Epic's Osteoporosis Registry, which can serve as a starting point for an osteoporosis post-fracture care program Clinical Dashboard. Clinical criteria used in Epic's Osteoporosis Registry aligns osteoporosis management quality measures such as:

- Healthcare Effectiveness Data and Information Set (HEDIS) Osteoporosis Management in Women Who Had a Fracture (OMW)*
- Merit-based Incentive Payment System (MIPS) measure #418†

Both of these measures evaluate the percentage of female patients receiving osteoporosis testing or treatment within 6 months of a fracture.[2,3]

Javaid et al. Offers Additional Key Performance Indicators (KPIs) Derived From Expert Recommendations

Beyond quality metrics, expert leaders in osteoporosis care have suggested additional key performance indicators.

These expert recommendations come from the following groups:[9]

- International Osteoporosis Foundation (IOF)
- National Osteoporosis Foundation (NOF)
- Fragility Fracture Network (FFN)

The recommended KPIs can be used by organizations to help guide their quality improvement programs.[9]
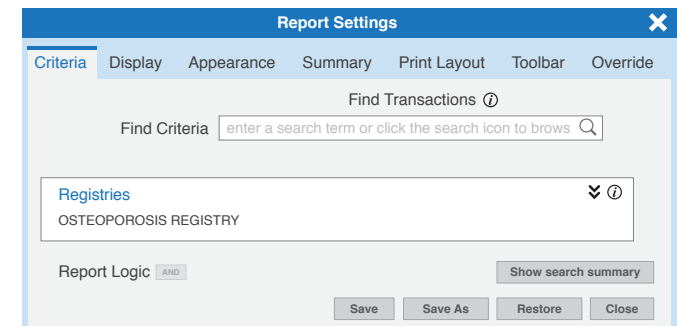
Example of the Osteoporosis Registry available in Epic

*Medicare Advantage women enrollees age 67-85.[2]
†Women age 50-85.[3]

Map of Potential KPIs Based on Osteoporosis Patient Journey
See Appendix for criteria for each KPI below

Using the Epic Osteoporosis Registry as the base for building a robust registry and clinical dashboards, health systems with Post-Fracture Care Programs may consider adding KPIs based on expert recommendations. The following pages illustrate how that may be configured.
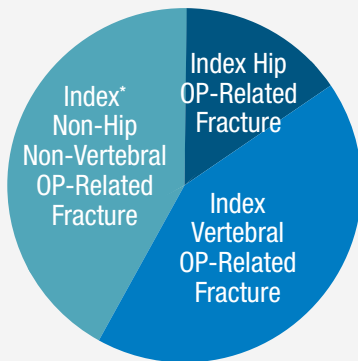
INITIAL FRACTURE
Identification

WEEKS 1-12
Investigation

TARGET POPULATION THAT MAY NEED POST-FRACTURE CARE[9,10]
Total Patients With Fracture

- Index Hip OP-Related Fracture
- Index* Non-Hip Non-Vertebral OP-Related Fracture
- Index Vertebral OP-Related Fracture

FOLLOW-UP SCHEDULED IN A TIMELY MANNER[9,10]
Total Patients Scheduled for Initial Visit Within 3 Months of Fracture

- Scheduled
- Not Scheduled
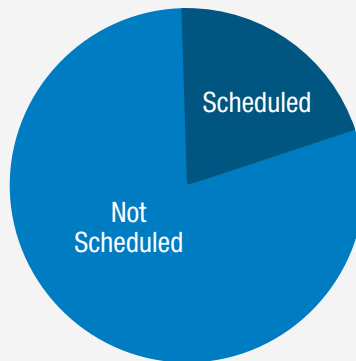
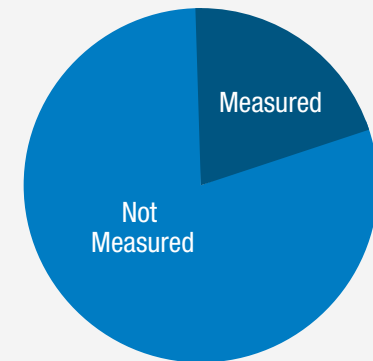**PATIENT ENCOUNTER IN A TIMELY MANNER[9,10]**
Total Patients Who Met With HCP Within 3 Months for Osteoporosis Risk Assessment

- Met
- Did Not Meet
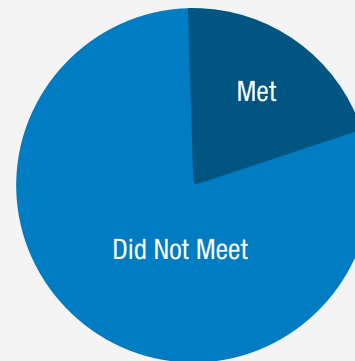
BMD TEST IN A TIMELY MANNER[5,10]
Bone Mineral Density Test Within 3 Months of Fracture

- Measured
- Not Measured

Graphs are hypothetical examples for illustrative purposes only.

The 2020 American Association of Clinical Endocrinology (AACE) guidelines state that a dual-energy x-ray absorptiometry (DXA) is not required for a diagnosis of osteoporosis when patients experience a low trauma fracture of the hip or spine.[1,†]

*Index fracture is defined as a fragility fracture that is discovered either through clinical or radiological case-finding.[9]
†AACE guideline recommendations rely on robust evidence-based medicine. Available evidence is analyzed based on interpretation of the quality of each individual study's design and data analysis.[1]

Map of Potential KPIs Based on Osteoporosis Patient Journey (cont.)
See Appendix for criteria for each KPI below
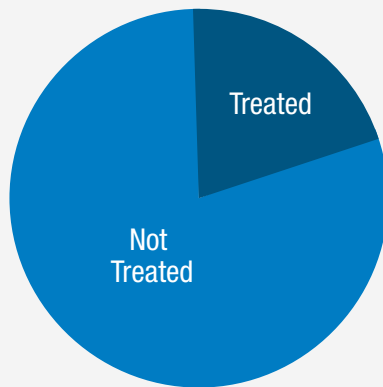
WEEKS 13-16 Intervention		WEEKS 17-52 Integration

PRESCRIPTION FOR TREATMENT IN A TIMELY MANNER[9]
Post-Fracture Treatment Rate

Treated

Not Treated

FOLLOW-UP TO ENSURE PATIENTS HAVE INITIATED RECOMMENDED TREATMENT
Total Patients With Follow-Up
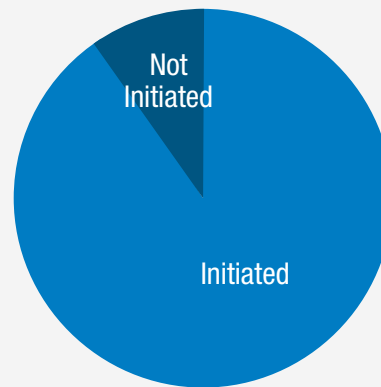
Not Initiated

Initiated

FOLLOW-UP TO DETERMINE ADHERENCE TO RECOMMENDED TREATMENT[9]
Total Patients With Follow-Up

Non-Adherent

Adherent
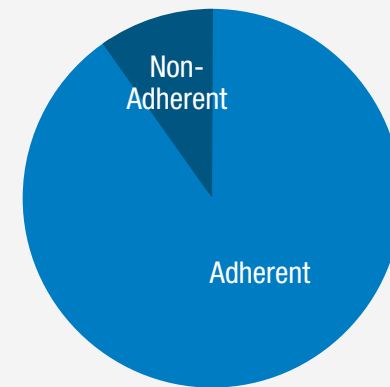
Graphs are hypothetical examples for illustrative purposes only.

Map of Potential KPIs Based on Osteoporosis Patient Journey (cont.)
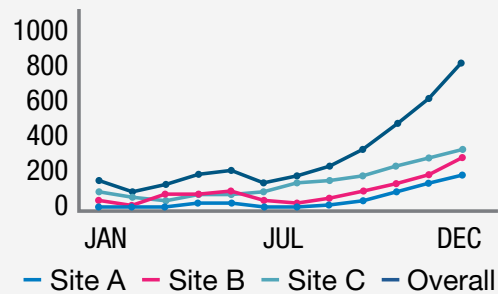## See Appendix Table 1 for criteria for each KPI below

ONGOING
Database and Quality

OVERALL TREND OF BMD TESTING AND TREATMENT
Total Patients With Testing or New Rx Since 1/1/2021

JAN   JUL   DEC

1000
800
600
400
200
0

— Site A — Site B — Site C — Overall

RE-FRACTURE RATE[11]
Total Patients With Re-Fracture Since 1/1/2021

Cumulative incidence of subsequent fracture

— All
— Ankle
— Clavicle
— Femur
— Hip
— Humerus
— Pelvis
— Radius/Ulna
— Clinical vertebral
— Tibia/Fibula

0.5
0.4
0.3
0.2
0.1
0.0

0   1   2   3   4
YEARS
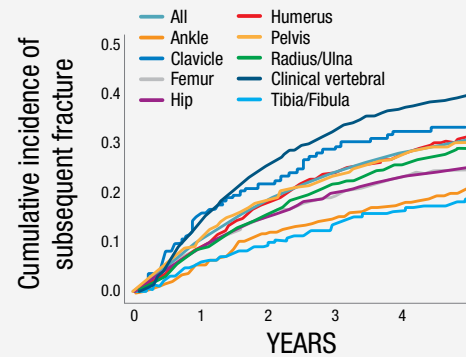
TRACKING OF HEDIS MEASURE
HEDIS Measure 2021
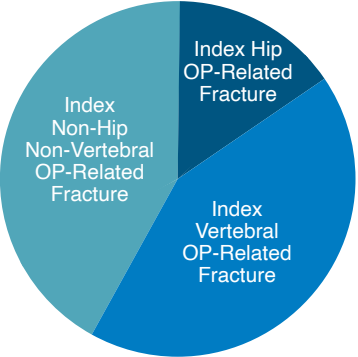
MEDICARE ADVANTAGE - HEDIS

	Q4 20	Q1 21	Q2 21	Q3 21
Osteoporosis Management in Women Who Have Had a Fracture	%	%	%	%

Graphs are hypothetical examples for illustrative purposes only.
Re-fracture rate graph has been adapted from Balasubramanian.

Appendix: Criteria for Suggested Key Performance Indicators as Part of EHR Clinical Dashboards*,†

KEY PERFORMANCE INDICATOR 1: TARGET POPULATION THAT MAY NEED POST-FRACTURE CARE			
TARGET POPULATION THAT MAY NEED POST-FRACTURE CARE[9] **Total Patients With Fracture** Index Hip OP-Related Fracture Index Non-Hip Non-Vertebral OP-Related Fracture Index Vertebral OP-Related Fracture	**Category**	**Criteria**	**Value**
	Gender	Female[3]	F
	Age	50-85 years old[3]	50-85
	Diagnosis	Vertebral osteoporosis-related fracture[9]	eg, S32.XX (see Appendix Table 1 for a listing of ICD-10 codes)[10]
		Osteoporosis with current pathological fracture[9]	eg, M80.XX (see Appendix Table 1 for a listing of ICD-10 codes)[10]

Graph and KPIs are hypothetical examples for illustrative purposes only.

CPT = Current Procedural Terminology.
*Criteria are intended to guide provider efforts to communicate the key performance indicators to the EHR Support Team. They are provided for reference purpose only and may not be applicable or all-inclusive in some cases.
†Codes are intended to guide provider efforts to identify patients potentially eligible for post-fracture follow-up. They are provided for reference purpose only and may not be all-inclusive. 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.

Appendix: Criteria for Suggested Key Performance Indicators as Part of EHR Clinical Dashboards[*,†] (cont.)

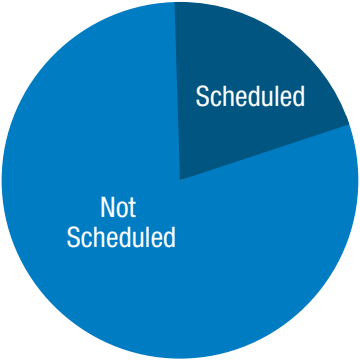| KEY PERFORMANCE INDICATOR 2: FOLLOW-UP SCHEDULED IN A TIMELY MANNER			
FOLLOW-UP SCHEDULED IN A TIMELY MANNER[9] **Total Patients Scheduled for Initial Visit** Scheduled Not Scheduled	**Category**	**Criteria**	**Value**
	Gender	Female[3]	F
	Age	50-85 years old[3]	50-85
	Diagnosis	Possible osteoporosis-related fracture[9]	eg, S32.XX (see Appendix Table 1 for a listing of ICD-10 codes)[10]
	Scheduled Appointment	Future appointment scheduled within 12 weeks of initial fracture[9]	eg, 99211 with reason code 'Fracture Follow-up' or 'Osteoporosis Follow-up' (see Appendix Table 2 for a listing of CPT codes to indicate evaluation and management services)[10]

Graph and KPIs are hypothetical examples for illustrative purposes only.

CPT = Current Procedural Terminology.

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Appendix: Criteria for Suggested Key Performance Indicators as Part of EHR Clinical Dashboards*,† (cont.)

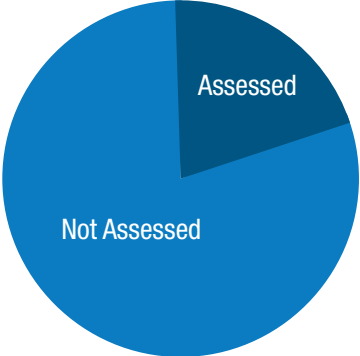| KEY PERFORMANCE INDICATOR 3: FOLLOW-UP OSTEOPOROSIS RISK ASSESSMENT			
FOLLOW-UP OSTEOPOROSIS RISK ASSESSMENT[9] **Total Patients Who Met With HCP for Osteoporosis Risk Assessment** 	**Category**	**Criteria**	**Value**
	Gender	Female[3]	F
	Age	50-85 years old[3]	50-85
	Diagnosis	Possible osteoporosis-related fracture[9]	eg, S32.XX (see Appendix Table 1 for a listing of ICD-10 codes)[10]
	Visit	Patient encounter within 12 weeks of initial fracture[9]	eg, 99211 with reason code 'Fracture Follow-up' or 'Osteoporosis Follow-up' (see Appendix Table 2 for a listing of CPT codes to indicate evaluation and management services)[10]

Graph and KPIs are hypothetical examples for illustrative purposes only.

CPT = Current Procedural Terminology.

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Appendix: Criteria for Suggested Key Performance Indicators as Part of EHR Clinical Dashboards*,† (cont.)

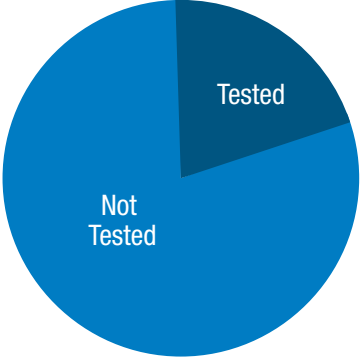| KEY PERFORMANCE INDICATOR 4: BMD TEST IN A TIMELY MANNER			
BMD TEST IN A TIMELY MANNER[5] Bone Mineral Density Test	**Category**	**Criteria**	**Value**
	Gender	Female[3]	F
	Age	50-85 years old[3]	50-85
	Diagnosis	Possible osteoporosis-related fracture[9]	eg, S32.XX (see Appendix Table 1 for a listing of ICD-10 codes)[10]
	Bone Mineral Density Studies	Study performed within 12 weeks of initial fracture[9]	eg, 77080 (see Appendix Table 3 for a listing of CPT codes for BMD studies)[10]

Graph and KPIs are hypothetical examples for illustrative purposes only.

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†Codes are intended to guide provider efforts to identify patients potentially eligible for post-fracture follow-up. They are provided for reference purpose only and may not be all-inclusive. 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.

Appendix: Criteria for Suggested Key Performance Indicators as Part of EHR Clinical Dashboards[*],[†] (cont.)

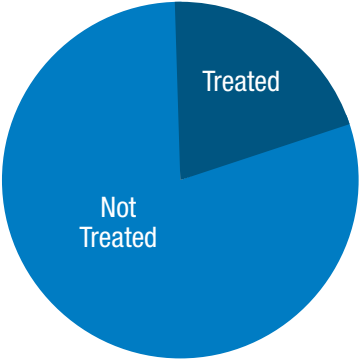| KEY PERFORMANCE INDICATOR 5: PRESCRIPTION FOR TREATMENT IN A TIMELY MANNER			
PRESCRIPTION FOR TREATMENT IN A TIMELY MANNER[9] **Post-Fracture Treatment Rate** 	**Category**	**Criteria**	**Value**
	Gender	Female[3]	F
	Age	50-85 years old[3]	50-85
	Diagnosis	Possible osteoporosis-related fracture[9]	eg, S32.XX (see Appendix Table 1 for a listing of ICD-10 codes)[10]
	Prescription	Were referred or have received a prescription within 16 weeks of initial fracture[9]	Names of various osteoporosis medications

Graph and KPIs are hypothetical examples for illustrative purposes only.

CPT = Current Procedural Terminology.

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[†]Codes are intended to guide provider efforts to identify patients potentially eligible for post-fracture follow-up. They are provided for reference purpose only and may not be all-inclusive. 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.

Appendix: Criteria for Suggested Key Performance Indicators as Part of EHR Clinical Dashboards*,† (cont.)

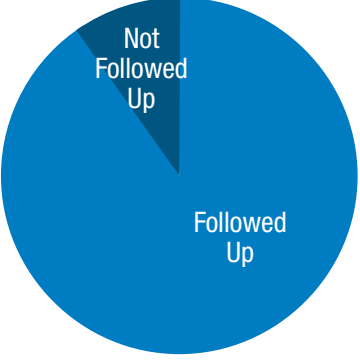| KEY PERFORMANCE INDICATOR 6: FOLLOW-UP TO ENSURE PATIENTS HAVE INITIATED RECOMMENDED TREATMENT			
FOLLOW-UP TO ENSURE PATIENTS HAVE INITIATED RECOMMENDED TREATMENT[9] **Total Patients With Follow-Up** Not Followed Up / Followed Up	**Category**	**Criteria**	**Value**
	Gender	Female[3]	F
	Age	50-85 years old[3]	50-85
	Diagnosis	Possible osteoporosis-related fracture[9]	eg, S32.XX (see Appendix Table 1 for a listing of ICD-10 codes)[10]
	Visit	Patient encounter within 16 weeks of initial fracture[9]	eg, 99211 with reason code 'Fracture Follow-up' or 'Osteoporosis Follow-up' (see Appendix Table 2 for a listing of CPT codes to indicate evaluation and management services)[10]

Graph and KPIs are hypothetical examples for illustrative purposes only.

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Appendix: Criteria for Suggested Key Performance Indicators as Part of EHR Clinical Dashboards*,† (cont.)

KEY PERFORMANCE INDICATOR 7: FOLLOW-UP TO DETERMINE ADHERENCE TO RECOMMENDED TREATMENT

FOLLOW-UP TO DETERMINE ADHERENCE TO RECOMMENDED TREATMENT[9]

Total Patients With Follow-Up

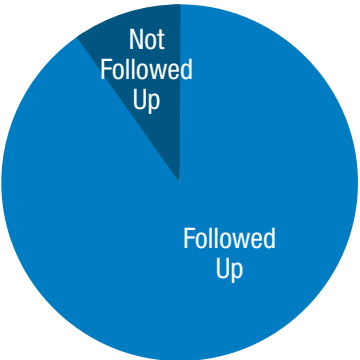| Category	Criteria	Value
Gender	Female[3]	F
Age	50-85 years old[3]	50-85
Diagnosis	Possible osteoporosis-related fracture[9]	eg, S32.XX (see Appendix Table 1 for a listing of ICD-10 codes)[10]
Visit	Patients taking anti-osteoporosis medications 52 weeks after the initial fracture[9]	eg, 99211 with reason code 'Fracture Follow-up' or 'Osteoporosis Follow-up' (see Appendix Table 2 for a listing of CPT codes to indicate evaluation and management services)[10]

Graph and KPIs are hypothetical examples for illustrative purposes only.

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Appendix: Criteria for Suggested Key Performance Indicators as Part of EHR Clinical Dashboards[*,†] (cont.)

KEY PERFORMANCE INDICATOR 8: TREND OF BMD TESTING AND TREATMENT			

OVERALL TREND OF BMD TESTING AND TREATMENT

Total Patients With Testing or New Rx Since 1/1/2021

Category	Criteria	Value
Gender	Female[3]	F
Age	50-85 years old[3]	50-85
Diagnosis	Possible osteoporosis-related fracture[9]	eg, S32.XX (see Appendix Table 1 for a listing of ICD-10 codes)[10]
Bone Mineral Density Studies	Study performed[9]	eg, 77080 (see Appendix Table 3 for a listing of CPT codes for BMD studies)[10]
Prescription	Have received a prescription[9]	Names of various osteoporosis medications

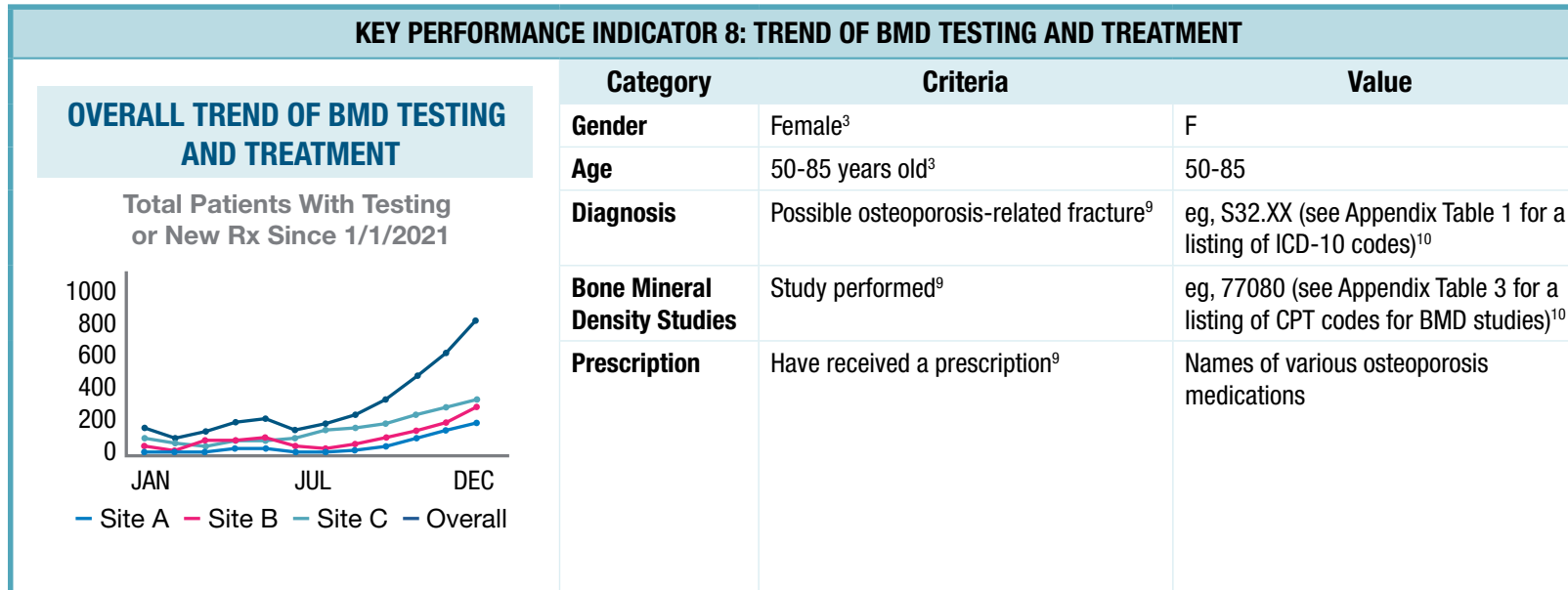Graph and KPIs are hypothetical examples for illustrative purposes only.

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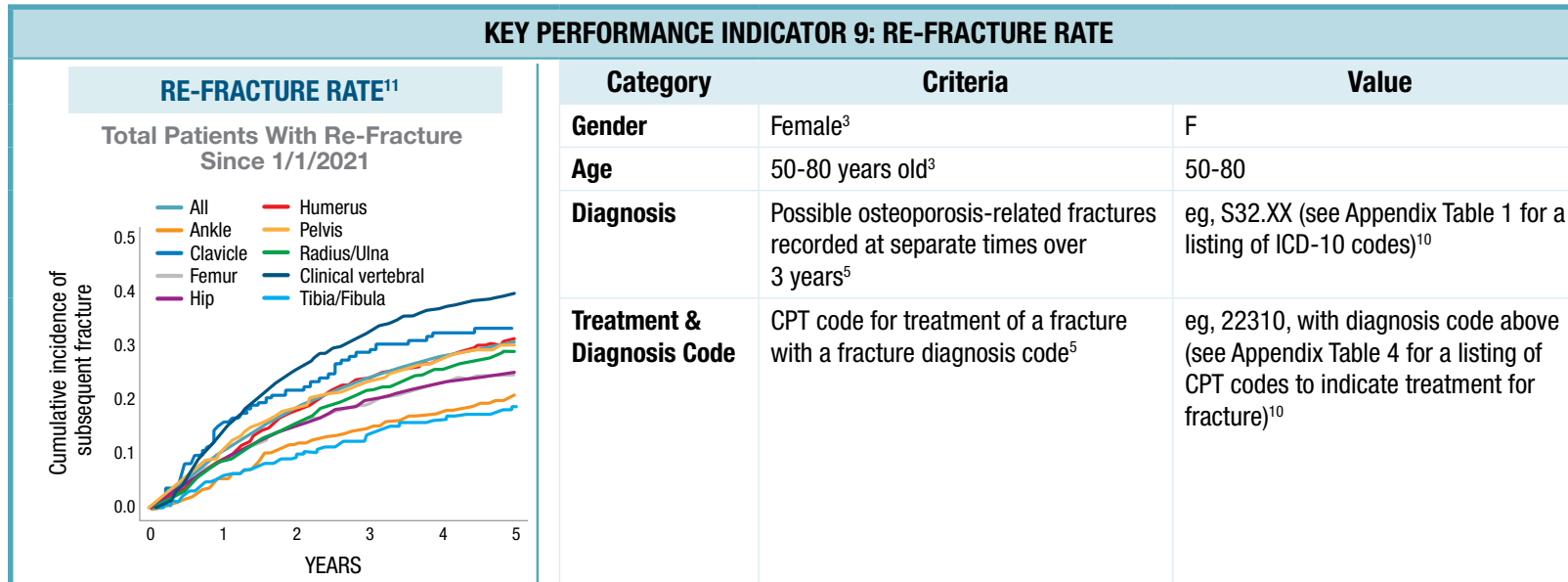# Appendix: Criteria for Suggested Key Performance Indicators as Part of EHR Clinical Dashboards[*,†] (cont.)

KEY PERFORMANCE INDICATOR 9: RE-FRACTURE RATE

RE-FRACTURE RATE[11]

Total Patients With Re-Fracture Since 1/1/2021

Legend: All, Ankle, Clavicle, Femur, Hip, Humerus, Pelvis, Radius/Ulna, Clinical vertebral, Tibia/Fibula

Y-axis: Cumulative incidence of subsequent fracture (0.0, 0.1, 0.2, 0.3, 0.4, 0.5)
X-axis: YEARS (0, 1, 2, 3, 4, 5)

Category	Criteria	Value
Gender	Female[3]	F
Age	50-80 years old[3]	50-80
Diagnosis	Possible osteoporosis-related fractures recorded at separate times over 3 years[5]	eg, S32.XX (see Appendix Table 1 for a listing of ICD-10 codes)[10]
Treatment & Diagnosis Code	CPT code for treatment of a fracture with a fracture diagnosis code[5]	eg, 22310, with diagnosis code above (see Appendix Table 4 for a listing of CPT codes to indicate treatment for fracture)[10]

Graph and KPIs are hypothetical examples for illustrative purposes only.
Re-fracture rate graph has been adapted from Balasubramanian.

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†Codes are intended to guide provider efforts to identify patients potentially eligible for post-fracture follow-up. They are provided for reference purpose only and may not be all-inclusive. 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.

Appendix: Criteria for Suggested Key Performance Indicators as Part of EHR Clinical Dashboards[*,†] (cont.)

KEY PERFORMANCE INDICATOR 10: TRACKING OF HEDIS MEASURE

| **TRACKING OF HEDIS MEASURE**[2,3]
HEDIS Measure 2021

MEDICARE ADVANTAGE - HEDIS

Osteoporosis Management in Women Who Have Had a Fracture — Q4 20 %, Q1 21 %, Q2 21 %, Q3 21 % | This key performance indicator can be adapted from the osteoporosis registry. |

Graph and KPIs are hypothetical examples for illustrative purposes only.

CPT = Current Procedural Terminology.

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†Codes are intended to guide provider efforts to identify patients potentially eligible for post-fracture follow-up. They are provided for reference purpose only and may not be all-inclusive. 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.

Appendix Table 1: ICD-10 Codes Potentially Indicative of a Fracture Requiring Osteoporosis Follow-Up[10,12,*]

VERTEBRAL OSTEOPOROSIS-RELATED FRACTURE	
S32.XX	Fractures of lumbar spine and pelvis
HIP OSTEOPOROSIS-RELATED FRACTURE	
S79.XX	Other and unspecified injuries of hip and thigh
NON-HIP NON-VERTEBRAL OSTEOPOROSIS-RELATED FRACTURE	
S32.XX	Vertebral fracture
S42.XX	Fractures of shoulder and upper arm
S52.XX	Fracture of forearm
S62.XX	Fracture at wrist and hand level
S72.XX	Fracture of femur
S82.XX	Fracture of lower leg, including ankle
M80.XXX	Osteoporosis with current pathological fracture
M84.30XA	Stress fracture, unspecified site, initial encounter for fracture

*Codes are intended to guide provider efforts to identify patients potentially eligible for post-fracture follow-up. They are provided for reference purpose only and may not be all-inclusive. 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.

Appendix Table 2: CPT Codes to Identify Evaluation and Management Services[10,12,*]

E/M CODE	PRESENTING PROBLEM AND/OR MEDICAL DECISION MAKING	HISTORY AND/OR EXAMINATION	TIME SPENT DURING ENCOUNTER
99201 (new)	Self limited or minor	Problem focused	10 min.
99211 (established)	Minimal	May not require the presence of a physician or other qualified health care professional	N/A
99202 (new)	Straight-forward	Medically appropriate	15-29 min.
99212 (established)	Straight-forward	Medically appropriate	10-19 min.
99203 (new)	Low level	Medically appropriate	30-44 min.
99213 (established)	Low level	Medically appropriate	20-29 min.
99204 (new)	Moderate	Medically appropriate	45-59 min.
99214 (established)	Moderate	Medically appropriate	30-39 min.
99205 (new)	High level	Medically appropriate	60-74 min.
99215 (established)	High level	Medically appropriate	40-54 min.

Table adapted from Codify AAPC.

CPT = Current Procedural Terminology.
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Appendix Table 3: CPT Codes to Identify Bone Mineral Density Studies[10,13,*]

77078	Computed tomography, bone mineral density study, 1 or more sites; axial skeleton (eg, hips, pelvis, spine)
77080	DXA bone density study, 1 or more sites; axial skeleton (eg, hips, pelvis, spine)
77081	DXA bone density study, 1 or more sites; appendicular skeleton (peripheral) (eg, radius, wrist, heel)
77085	DXA bone density study, 1 or more sites; axial skeleton (eg, hips, pelvis, spine), including vertebral fracture assessment
0554T	Bone strength and fracture risk using finite element analysis of functional data, and bone-mineral density, utilizing data from a computed tomography scan; retrieval and transmission of the scan data, assessment of bone strength and fracture risk and bone mineral density, interpretation and report
0555T	Bone strength and fracture risk using finite element analysis of functional data, and bone-mineral density, utilizing data from a computed tomography scan; retrieval and transmission of the scan data
0556T	Bone strength and fracture risk using finite element analysis of functional data, and bone-mineral density, utilizing data from a computed tomography scan; assessment of bone strength and fracture risk and bone mineral density
0557T	Bone strength and fracture risk using finite element analysis of functional data, and bone-mineral density, utilizing data from a computed tomography scan; interpretation and report
0558T	Computed tomography scan taken for the purpose of biomechanical computed tomography analysis

CPT = Current Procedural Terminology.
*Codes are intended to guide provider efforts to identify patients potentially eligible for post-fracture follow-up. They are provided for reference purpose only and may not be all-inclusive. 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.

Appendix Table 4: CPT Codes to Identify Fracture Procedures[10,*]

25500-25695	Fracture procedures on the forearm and wrist
21310-21497	Fracture procedures on the head
21811-21825	Fracture procedures on the neck (soft tissues) and thorax
22310-22328	Fracture procedures on the spine (vertebral column)
23500-23680	Fracture procedures on the shoulder
24500-24685	Fracture procedures on the humerus (upper arm) and elbow
26600-26785	Fracture and/or dislocation procedures on the hand and fingers
27197-27269	Fracture procedures on the pelvis and hip joint
27500-27566	Fracture procedures on the femur (thigh region) and knee joint
27750-27848	Fracture procedures on the tibia and fibula (leg) and ankle joint
28400-28675	Fracture procedures on the foot and toes
29000-29086	Body and upper extremity application of casts
29305-29450	Lower extremity application of casts

CPT = Current Procedural Terminology.
*Codes are intended to guide provider efforts to identify patients potentially eligible for post-fracture follow-up. They are provided for reference purpose only and may not be all-inclusive. 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.

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