

**Hematology**  
**Measure #3: Multiple Myeloma – Treatment with Bisphosphonates**

**This measure may be used as an Accountability measure.**

<b>Clinical Performance Measure</b>
<p><b>Numerator:</b> Patients who were prescribed or received intravenous bisphosphonate therapy* within the 12 month reporting period.</p> <p>Definition: *Bisphosphonate Therapy: Includes the following medications: pamidronate and zoledronate</p> <p>Definition: Prescribed: Includes patients who are currently receiving medication(s) that follow the treatment plan recommended at an encounter during the reporting period, even if the prescription for that medication was ordered prior to the encounter</p> <p><b>Denominator:</b> All patients aged 18 years and older with a diagnosis of multiple myeloma, not in remission</p> <p><b>Denominator Exceptions:</b>            Documentation of medical reason(s) for not prescribing bisphosphonates (eg, patients who do not have bone disease, patients with dental disease, patients with renal insufficiency)</p> <p>Documentation of patient reason(s) for not prescribing bisphosphonates</p> <p><b>Measure:</b> Percentage of patients aged 18 years and older with a diagnosis of multiple myeloma, not in remission, who were prescribed or received intravenous bisphosphonate therapy within the 12 month reporting period.</p>
<p><b>The following clinical recommendation statements are quoted <u>verbatim</u> from the referenced clinical guidelines and represent the evidence base for the measure:</b></p> <p>Based on published data and clinical experience, the guidelines recommend the use of bisphosphonates for all patients with multiple Myeloma who have bone disease, including osteopenia. In 10% to 20% of patients with earlier-stage disease who do not have bone disease, bisphosphonates may be considered but preferably in a clinical trial (Category I Recommendation). (NCCN<sup>5</sup>)</p> <p>Intravenous bisphosphonates should be administered monthly for patients with MM and lytic disease evident on plain radiographs (Grade A, Level II). It is reasonable to start intravenous bisphosphonates in patients with MM who do not have lytic bone disease if there is evidence of osteopenia or osteoporosis on bone mineral density studies (Consensus Recommendation, Level N/A). No randomized clinical trials support the use of bisphosphonates in patients with smoldering MM. We believe that bisphosphonates should be used only in the setting of a clinical trial [in these patients] (Consensus Recommendation, Level N/A). (Mayo Clinic<sup>6</sup>)</p>
<p><b>Rationale for the measure:</b></p> <p>Multiple Myeloma is a disease characterized by bone destruction, in the form of diffuse osteopenia and/or osteolytic lesions, which develop in 85% of patients. Bisphosphonates can inhibit bone resorption by reducing the number and activity of osteoclasts and therefore could “reduce pain and bone fractures in people with multiple Myeloma<sup>7</sup>.”</p>
<p><b>Data capture and calculations:</b></p> <p><b>Calculation for Performance</b></p> <p>For performance purposes, this measure is calculated by creating a fraction with the following components: Numerator, Denominator, and Denominator Exclusions.</p> <p><b>Numerator (A) Includes:</b></p> <ul style="list-style-type: none"> <li>• Patients who were prescribed or received intravenous bisphosphonate therapy within the 12 month reporting period</li> </ul> <p><b>Denominator (PD) Includes:</b></p> <ul style="list-style-type: none"> <li>• All patients aged 18 years and older with a diagnosis of multiple myeloma, not in remission</li> </ul> <p><b>Denominator Exceptions (C) Include:</b></p> <ul style="list-style-type: none"> <li>• Documentation of medical reason(s) for not prescribing bisphosphonates (eg, patients who do not have bone</li> </ul>

- disease, patients with dental disease, patients with renal insufficiency)
- Documentation of patient reason(s) for not prescribing bisphosphonates

**Performance Calculation**

$$\frac{A \text{ (# of patients meeting measure criteria)}}{PD \text{ (# of patients in denominator) - C \text{ (# of patients with valid denominator exclusions)}}$$

Components for this measure are defined as:

<b>A</b>	# of patients who were prescribed or received intravenous bisphosphonate therapy within the 12 month reporting period
<b>PD</b>	# of patients aged 18 years and older with a diagnosis of multiple myeloma, not in remission
<b>C</b>	# of patients with documented medical reason(s) for not prescribing bisphosphonates (eg, patients who do not have bone disease, patients with dental disease, patients with renal insufficiency); # of patients with documented patient reason(s) for not prescribing bisphosphonates

**Calculation for Reporting**

For reporting purposes, this measure is calculated by creating a fraction with the following components: Reporting Numerator and Reporting Denominator

**Reporting Numerator** includes each of the following instances:

- A. Patients who were prescribed or received intravenous bisphosphonate therapy within the 12 month reporting period
- C. Patients who were not prescribed bisphosphonates but for whom there is a documented medical reason or patient reason for not doing so
- D. Patients who were not prescribed bisphosphonates and there is no documented reason for not doing so

**Reporting Denominator (RD) Includes:**

- Patients aged 18 years and older with a diagnosis of multiple myeloma, not in remission

**Reporting Calculation**

$$\frac{A(\text{\# of patients meeting numerator criteria}) + C(\text{\# of patients with valid exclusions}) + D(\text{\# of patients NOT meeting numerator criteria})}{RD \text{ (\# of patients in denominator)}}$$

Components for this measure are defined as:

<b>A</b>	# of patients who were prescribed or received intravenous bisphosphonate therapy within the 12 month reporting period
<b>C</b>	# of patients who were <u>not</u> prescribed bisphosphonates, but for whom there is a documented medical reason or patient reason for not doing so
<b>D</b>	# of patients who were <u>not</u> prescribed bisphosphonates and there is <u>no</u> documented reason for not doing so
<b>RD</b>	# of patients aged 18 years and older with a diagnosis of multiple myeloma, not in remission

**Measure Specifications** – Measure #3: Multiple Myeloma – Treatment with Bisphosphonates  
Measure specifications will be provided for multiple data sources.

**C. Administrative claims data**

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

(Note: The specifications listed below are those needed for performance calculation.)

Denominator (Eligible Population): All patients aged 18 years and older with a diagnosis multiple myeloma, not in remission

**ICD-9-CM diagnosis codes:** 203.00, 203.02

**AND**

**CPT codes:** 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245

Numerator: Patients who were prescribed or received intravenous bisphosphonate therapy within the 12 month reporting period

- **CPT Category II code:** 4100F – Intravenous bisphosphonate therapy prescribed or received

Denominator Exceptions:

Documentation of medical reason(s) for not prescribing bisphosphonates (eg, patients who do not have bone disease, patients with dental disease, patients with renal insufficiency)

- **Append modifier to CPT Category II code:** 4100F-1P

Documentation of patient reason(s) for not prescribing bisphosphonates

- **Append modifier to CPT Category II code:** 4100F-2P

**B. Electronic Health Record System** (*in development*)

**C. Paper Medical Record** (*in development*)