

Quality ID #271: Inflammatory Bowel Disease (IBD): Preventive Care: Corticosteroid Related Iatrogenic Injury – Bone Loss Assessment – National Quality Strategy Domain: Effective Clinical Care

2018 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Process

DESCRIPTION:

Percentage of patients with an inflammatory bowel disease encounter who were prescribed prednisone equivalents greater than or equal to 10 mg/day for 60 or greater consecutive days or a single prescription equating to 600 mg prednisone or greater for all fills and were documented for risk of bone loss once during the reporting year or the previous calendar year. Individuals who received an assessment for bone loss during the prior or current year are considered adequately screened

INSTRUCTIONS:

This measure is to be submitted a minimum of **once per performance period** for all patients with a diagnosis of inflammatory bowel disease seen during the performance period. This measure may be submitted by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Submission:

The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:

All patients, regardless of age, with a diagnosis of inflammatory bowel disease

Definition:

Corticosteroids – Prednisone equivalents used expressly for the treatment of IBD and not for other indications (including premedication before anti-TNF therapy, non-IBD indications) can be determined using the following: 1 mg of prednisone = 1 mg of prednisolone; 5 mg of cortisone; 4 mg of hydrocortisone; 0.8 mg of triamcinolone; 0.8 mg of methylprednisolone; 0.15 mg of dexamethasone; 0.15 mg of betamethasone.

Denominator Criteria (Eligible Cases):

Diagnosis for inflammatory bowel disease (ICD-10-CM): K50.00, K50.011, K50.012, K50.013, K50.014, K50.018, K50.019, K50.10, K50.111, K50.112, K50.113, K50.114, K50.118, K50.119, K50.80, K50.811, K50.812, K50.813, K50.814, K50.818, K50.819, K50.90, K50.911, K50.912, K50.913, K50.914, K50.918, K50.919, K51.00, K51.011, K51.012, K51.013, K51.014, K51.018, K51.019, K51.20, K51.211, K51.212, K51.213, K51.214, K51.218, K51.219, K51.30, K51.311, K51.312, K51.313, K51.314, K51.318, K51.319, K51.40, K51.411, K51.412, K51.413, K51.414, K51.418, K51.419, K51.50, K51.511, K51.512, K51.513, K51.514, K51.518, K51.519, K51.80, K51.811, K51.812, K51.813, K51.814, K51.818, K51.819, K51.90, K51.911, K51.912, K51.913, K51.914, K51.918, K51.919

AND

Patient encounter during the performance period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99406, 99407

AND

Patients who have received or are receiving corticosteroids greater than or equal to 10 mg/day of prednisone equivalents for 60 or greater consecutive days or a single prescription equating to 600 mg prednisone or greater for all fills: G9469

NUMERATOR:

Patients who have received dose of corticosteroids greater than or equal to 10 mg/day of prednisone equivalents for 60 or greater consecutive days or a single prescription equating to 600 mg prednisone or greater for all fills and who were documented for risk of bone loss during the reporting year or the previous calendar year

Definition:

Documented – Documentation that an assessment for risk of bone loss has been performed or ordered or that pharmacologic treatment for osteoporosis was prescribed. This includes, but is not limited to, review of systems and medication history, and ordering of Central Dual- energy X-Ray Absorptiometry (DXA) scan.

Numerator Options:

Performance Met:

Within the past 2 years, Central Dual-energy X-Ray Absorptiometry (DXA) ordered and documented review of systems and medication history or pharmacologic therapy (other than minerals/vitamins) for osteoporosis prescribed (**G8861**)

OR

Performance Not Met:

Within the past 2 years, Central Dual-energy X-Ray Absorptiometry (DXA) not ordered and documented, no review of systems and no medication history or pharmacologic therapy (other than minerals/vitamins) for osteoporosis prescribed (**G9472**)

RATIONALE:

Patients with inflammatory bowel disease (IBD) often rely on their gastroenterologist for healthcare maintenance. In addition, the gastroenterologist also provides guidance to the patient's primary care physician on a broad range of issues such as vaccinations, osteoporosis screening, and cancer/dysplasia surveillance. Screening for osteoporosis is based on a combination of individual risk factors, but a history of prolonged (>3 months) steroid use over 10 mg is reason enough to obtain dual-energy x-ray absorptiometry scanning. (Mosca Andrew M., Mahadevan U., Kane S. General Health Maintenance in IBD. *Inflamm Bowel Dis.* 2009; 15:1399–1409.)

Markers of greater osteoporosis and fracture risk include older age, hypogonadism, corticosteroid therapy, and established cirrhosis (American Gastroenterological Association. (2003). American Gastroenterological Association Medical Position Statement: Osteoporosis in Hepatic Disorders. *Gastroenterology.* 125: pp 937-940.)

The decision to measure bone density should follow an individualized approach. It should be considered when it will help the patient decide whether to institute treatment to prevent osteoporotic fracture. It should also be considered in patients receiving glucocorticoid therapy for two months or more and patients with other conditions that place them at high risk for osteoporotic fracture. (NIH)

The most commonly used measurement to diagnose osteoporosis and predict fracture risk is based on assessment of bone mineral density BMD by dual energy X-ray absorptiometry (DXA). (NIH)

(National Institutes of Health. Osteoporosis Prevention, Diagnosis and Therapy. NIH Consensus Statement. March 2000; 17:1-45.)

CLINICAL RECOMMENDATION STATEMENTS:

IBD has only a modest effect on BMD, with a pooled Z score of - 0.5 (level A evidence). (AGA, American Gastroenterological Association Medical Position Statement: Guidelines on Osteoporosis in Gastrointestinal Diseases, 2003).

Corticosteroid use is the variable most strongly associated with osteoporosis (level A evidence). However, it is difficult to distinguish corticosteroid use from disease activity in terms of causal impact on bone density, because the two are

closely linked. (AGA, American Gastroenterological Association Medical Position Statement: Guidelines on Osteoporosis in Gastrointestinal Diseases. 2003.)

However there is strong evidence that those on long-term steroids of greater than three months have a significant increase risk of fracture (Papaioannou A. et al. All Patients with Inflammatory Bowel Disease Should Have Bone Density Assessment: Pro. Inflammatory Bowel Diseases. 2001.7(2):158-162) DXA screening is recommended in inflammatory bowel disease patients with one or more risk factors: history of vertebral fractures, postmenopausal, male >50 years of age, chronic corticosteroid therapy, or hypogonadism. If the initial DXA is normal, the AGA recommends repeat testing in 2-3 years. If the patient has osteoporosis, or has a history of a low trauma fracture, evaluation for secondary causes should be completed. Suggested studies include a complete blood count, serum concentrations of alkaline phosphatase level, calcium, creatinine, and 25-OH vitamin D, serum protein electrophoresis, serum calcium, and a testosterone level in males. (Bernstein CN, Leslie WD, Leboff MS. AGA technical review on osteoporosis in gastrointestinal diseases. Gastroenterology. 2003;124(3):795–841).

Data on the treatment of osteoporosis in Crohn's disease depend on studies that are not specific to IBD. The evidence levels and recommendation grades are accordingly marked down. Weight bearing, isotonic exercise [EL2b, RG B], stopping smoking [EL3b, RG C], avoiding alcohol excess [EL4, RG D], and maintaining adequate dietary calcium (>1 g/day) [EL2b, RG B] are beneficial. Hormone replacement treatment is no longer generally advised in post-menopausal women with osteoporosis [EL2b, RG B], but regular use of bisphosphonates, calcitonin and its derivatives, and raloxifene may reduce or prevent further bone loss [EL2b, RG C]. Data in men with osteoporosis are less secure but bisphosphonates are probably of value, [EL3b, RG C]. Newer data also support the use of strontium salts [EL2a, RG B]. Patients receiving systemic steroid therapy should receive calcium and vitamin D for prophylaxis [EL5, RG D]. (Assche G et al., Second European evidence-based consensus on ulcerative colitis' diagnosis and management. Journal of Crohn's and Colitis (2013) 7, 1-33.)

Diagnosis of osteoporosis in adults is best made from a T score of less than -2.5 on radiographic bone densitometry [EL1a, RG A], all other diagnosis methods having current limitations [EL2b, RG B]. The presence of osteoporosis identifies patients at above average risk for fracture and who should receive treatment [EL2b, RG B]. Osteopenia may be a prognostic marker for future osteoporosis, but presents little direct risk [EL2b, RG C]. However if the T score is less than -1.5, treatment with calcium and vitamin D should be recommended [EL4, RG C]. Pre-existing history of fracture is of substantial adverse prognostic significance and patients should be treated for osteoporosis even if the T score is normal [EL4, RG C]. (Assche G et al., Second European evidence-based consensus on ulcerative colitis' diagnosis and management. Journal of Crohn's and Colitis (2013) 7, 1-33.)

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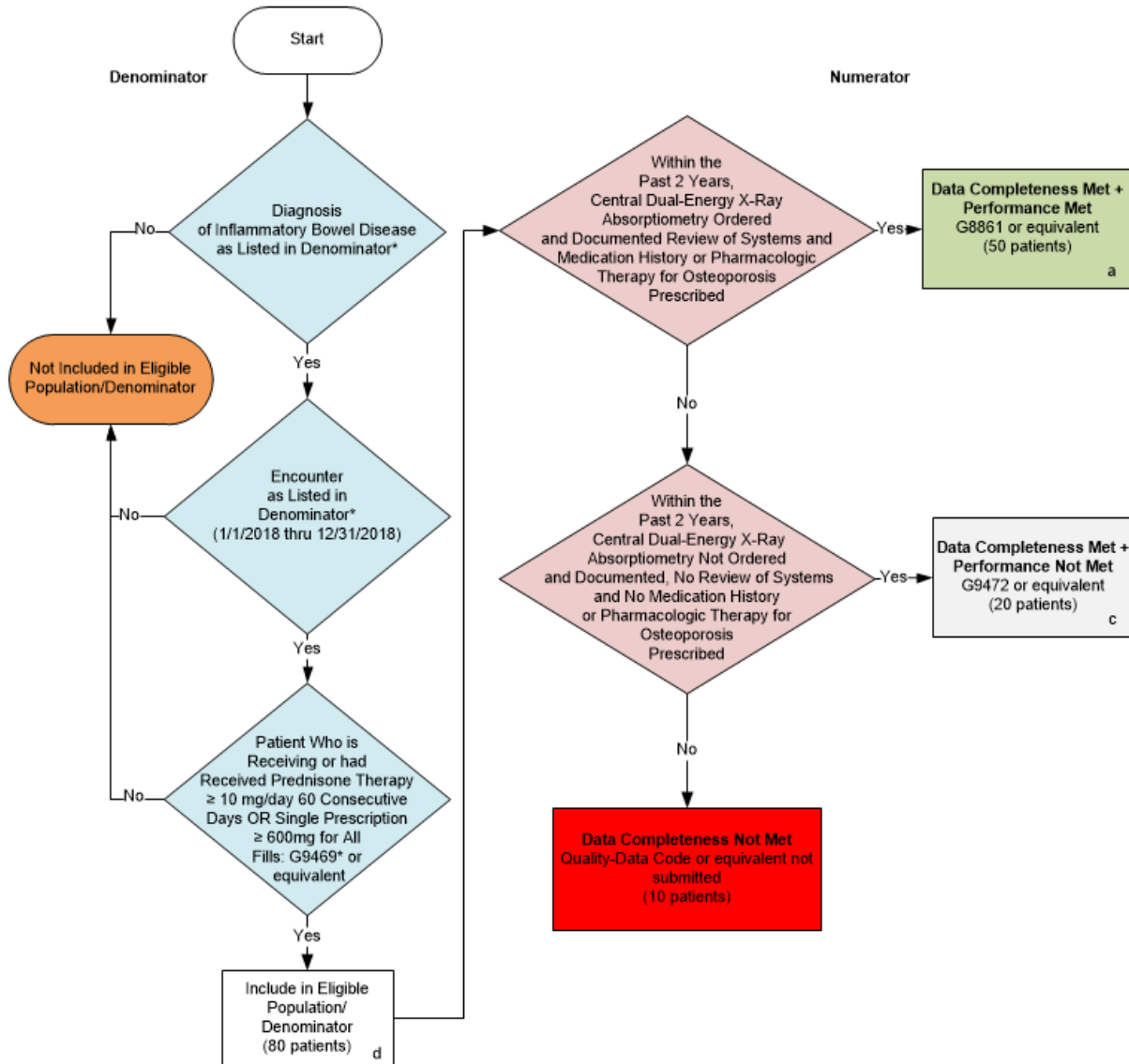
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**2018 Registry Flow for Quality ID #271:
Inflammatory Bowel Disease (IBD): Preventive Care: Corticosteroid Related Iatrogenic Injury –
Bone Loss Assessment**



SAMPLE CALCULATIONS:

Data Completeness=

$$\frac{\text{Performance Met (a=50 patients) + Performance Not Met (c=20 patients)}}{\text{Eligible Population / Denominator (d=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a=50 patients)}}{\text{Data Completeness Numerator (70 patients)}} = \frac{50 \text{ patients}}{70 \text{ patients}} = 71.43\%$$

*See the posted Measure Specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Patient-process

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 in conjunction with the measure specifications. They should not be used alone or as a
 substitution for the measure specification.

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2018 Registry Flow for Quality ID

#271 Inflammatory Bowel Disease (IBD): Preventive Care: Corticosteroid Related Iatrogenic Injury – Bone Loss Assessment

Please refer to the specific section of the Measure Specification to identify the denominator and numerator information for use in submitting this Individual Specification. This flow is for registry-data submission.

1. Start with Denominator
2. Check Patient Diagnosis:
 - a. If Diagnosis of Inflammatory Bowel Disease as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
 - b. If Diagnosis of Inflammatory Bowel Disease as Listed in the Denominator equals Yes, proceed to check Encounter Performed.
3. Check Encounter Performed:
 - a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
 - b. If Encounter as Listed in the Denominator equals Yes, proceed to check Patient who is Receiving or had Received Prednisone Therapy $\geq 10\text{mg/day}$ 60 consecutive Days OR Single prescription $\geq 600\text{mg}$ for All Fills.
4. Check Patient who is Receiving or had Received Prednisone Therapy $\geq 10\text{mg/day}$ 60 consecutive Days OR Single prescription $\geq 600\text{mg}$ for All Fills:
 - a. If Patient who is Receiving or had Received Prednisone Therapy $\geq 10\text{mg/day}$ 60 consecutive Days OR Single prescription $\geq 600\text{mg}$ for All Fills equals No, do not include in Eligible Patient Population. Stop Processing.
 - b. If Patient who is Receiving or had Received Prednisone Therapy $\geq 10\text{mg/day}$ 60 consecutive Days OR Single prescription $\geq 600\text{mg}$ for All Fills equals Yes, include in the Eligible Population.
5. Denominator Population:
 - a. Denominator population is all Eligible Patients in the denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.
6. Start Numerator
7. Check Within the Past 2 Years, Central Dual-Energy X-Ray Absorptiometry Ordered and Documented Review of Systems and Medication History or Pharmacologic Therapy for Osteoporosis Prescribed:
 - a. If Within the Past 2 Years, Central Dual-Energy X-Ray Absorptiometry Ordered and Documented Review of Systems and Medication History or Pharmacologic Therapy for Osteoporosis Prescribed equals Yes, include in Data Completeness Met and Performance Met.
 - b. Data Completeness Met and Performance Met is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 50 patients in Sample Calculation.

- c. If Within the Past 2 Years, Central Dual-Energy X-Ray Absorptiometry Ordered and Documented Review of Systems and Medication History or Pharmacologic Therapy for Osteoporosis Prescribed equals No, proceed to Check Within the Past 2 Years, Central Dual-Energy X-Ray Absorptiometry Not Ordered and Documented, No Review of Systems and No Medication History or Pharmacologic Therapy for Osteoporosis Prescribed.
8. Check Within the Past 2 Years, Central Dual-Energy X-Ray Absorptiometry Not Ordered and Documented, No Review of Systems and No Medication History or Pharmacologic Therapy for Osteoporosis Prescribed:
- a. If Within the Past 2 Years, Central Dual-Energy X-Ray Absorptiometry Not Ordered and Documented, No Review of Systems and No Medication History or Pharmacologic Therapy for Osteoporosis Prescribed equals Yes, include in the Data Completeness Met and Performance Not Met.
 - b. Data Completeness Met and Performance Not Met is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter c equals 20 patients in the Sample Calculation.
 - c. If Within the Past 2 Years, Central Dual-Energy X-Ray Absorptiometry Not Ordered and Documented, No Review of Systems and No Medication History or Pharmacologic Therapy for Osteoporosis Prescribed equals No, proceed to Data Completeness Not Met.
9. Check Data Completeness Not Met
- a. Data Completeness Not Met equals No, Quality Data Code or equivalent not submitted. 10 patients have been subtracted from Data Completeness Numerator in the Sample Calculation.

SAMPLE CALCULATIONS:

Data Completeness=

$$\frac{\text{Performance Met (a=50 patients) + Performance Not Met (c=20 patients)}}{\text{Eligible Population / Denominator (d=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

Performance Rate=

$$\frac{\text{Performance Met (a=50 patients)}}{\text{Data Completeness Numerator (70 patients)}} = \frac{50 \text{ patients}}{70 \text{ patients}} = 71.43\%$$