

## Low Back Pain: Use of Imaging Studies (NQF 0052)

<b>EMeasure Name</b>	Low Back Pain: Use of Imaging Studies	<b>EMeasure Id</b>	Pending
<b>Version Number</b>	1	<b>Set Id</b>	Pending
<b>Available Date</b>	No information	<b>Measurement Period</b>	January 1, 20xx through December 31, 20xx
<b>Measure Steward</b>	National Committee for Quality Assurance		
<b>Endorsed by</b>	National Quality Forum		
<b>Description</b>	The percentage of patients with a primary diagnosis of low back pain who did not have an imaging study (plain X-ray, MRI, CT scan) within 28 days of diagnosis.		
<b>Measure scoring</b>	Proportion		
<b>Measure type</b>	Process		
<b>Rationale</b>	<p>This measure assesses the percentage of patients in a specific age demographic who did not receive an imaging study (i.e., x-ray, MRI, CT scan) in the 28 days following a new episode of low back pain. Low back pain is the second most frequently listed reason for physician office visits. It is a common cause of lost productivity and absenteeism from work in the United States. The general consensus from literature reviews indicates that nearly half of American adults will experience low back pain in a year, and about two-thirds will suffer from it in their lifetime. Low back pain is particularly prevalent among men and women between 30 and 50 years of age, and most likely results from aging and an inactive lifestyle. Low back pain has a significant financial impact, costing an average of \$8,000 per claim (Atlas, Devo 2001). This measure facilitates efforts toward improved musculoskeletal condition and individual quality of life.</p>		
<b>Clinical Recommendation Statement</b>	<p>Agency for Healthcare Policy and Research (AHCPR): Plain x-rays are not recommended for routine evaluation of patients with acute low back problems within the first month of symptoms unless a “red flag” [indicator of potentially serious spinal pathology or other nonspinal pathology] is noted on clinical examination. (Strength of evidence: B) Plain x-rays of the lumbar spine are recommended for ruling out fractures in patients with acute low back problems when any of the following red flags are present: recent significant trauma (any age), recent mild trauma (patient over age 50), history of prolonged steroid use, osteoporosis, patient over age 70. (Strength of evidence: C) Plain x-rays in combination with CBC and ESR may be useful for ruling out tumor or infection in patients with acute low back problems when any of the following red flags are present: prior cancer or recent infection, fever over 100 degrees F, IV drug abuse, prolonged steroid use, low back pain worse with rest, unexplained weight loss. (Strength of evidence: C)</p> <p>AHCPR recommendations reaffirmed by Jarvik and Deyo, 2002.</p> <p>American Academy of Orthopaedic Surgeons/ North American Spine Society: When critical exclusionary diagnoses (eg, cauda equina syndrome, fracture, neoplasm, etc.) NOT suspected, plain lumbar spine x-rays recommended if non-specific lower back pain without radicular symptoms or lower back pain with</p>		

	<p>radicular symptoms remains unresolved after 4-6 weeks of activity modification (e.g., medications, self-applied thermal modalities, etc.). (Evidence not rated)</p> <p>American College of Radiology: Uncomplicated low back pain is a benign, self-limited condition that does not warrant any imaging studies. The vast majority of these patients are back to their usual activities in 30 days. The challenge for the clinician, therefore, is to distinguish that small segment within this large patient population that should be evaluated further because of suspicion of a more serious problem.</p>
<b>References</b>	<p>Jarvik JG, Deyo RA. Diagnostic evaluation of low back pain with emphasis on imaging. <i>Ann Intern Med.</i> 2002; 137:586-597.</p> <p>American Academy of Orthopaedic Surgeons and North American Spine Society. Clinical Guideline on Low Back Pain—Phase 1 (First Contact Physician). 1996.</p> <p>Bigos S, Bowyer O, Braen G, et al. <i>Acute Low Back Problems in Adults. Clinical Practice Guideline No. 14</i> AHCPR Publication No. 95-0642. Rockville MD: AHCPR, Public Health Service, U.S. DHHS. 1994.</p> <p>American College of Radiology, ACR Appropriateness Criteria. Acute Low Back Pain—Radiculopathy. <a href="http://www.acr.org">www.acr.org</a>.</p>
<b>Definitions</b>	

## Table of Contents

- [Population criteria](#)
- [Data criteria](#) (QDS Data Elements)
- [Summary calculation](#)

Please refer to the spreadsheet for this measure for detail regarding data criteria and code lists.

### Population criteria

- **Initial Patient Population =**
  - AND: “Patient characteristic: birth date” (age)  $\geq 18$  years and  $\leq 49$  years;
- **Denominator =**
  - AND: All patients in the initial patient population;
  - AND: “Encounter: encounter ambulatory including orthopedics and chiropractics”;
  - AND: “Diagnosis active: low back pain” FIRST occurrence during “measurement period”;
    - OR: MOST RECENT “Active diagnosis: low back pain”  $\leq 180$  days before FIRST “Diagnosis active: low back pain” during “measurement period”;
    - OR: “Diagnosis active: cancer”  $\leq 2$  years before or simultaneously to “measurement end date”;
    - OR: “Diagnosis active: trauma”  $\leq 2$  years before or simultaneously to “measurement end date”;

- OR: “Diagnosis active: IV drug abuse” <=2 years before or simultaneously to “measurement end date”;
  - OR: “Diagnosis active: neurologic impairment” <=2 years before or simultaneously to “measurement end date”;
- **Numerator =**
  - AND NOT: “Diagnostic study performed: imaging study-spinal” <= 28 days after FIRST “Active diagnosis: low back pain” during “measurement period”;
- **Exclusions =**
  - None;

### **Data criteria (QDS Data Elements)**

- **Initial Patient Population =**
  - "Patient characteristic: birth date" using “birth date code list” before the beginning of the “measurement period”;
- **Denominator =**
  - “Encounter: encounter ambulatory including orthopedics and chiropractics” using “encounter ambulatory including orthopedics and chiropractics code list grouping” during the “measurement period”;
  - “Diagnosis active: low back pain” using “low back pain code list grouping” before the “measurement end date”;
  - “Diagnosis active: cancer” using “cancer code list grouping” before the “measurement end date”;
  - “Diagnosis active: trauma” using “trauma code list grouping” prior to the “measurement end date”;
  - “Diagnosis active: IV drug abuse” using “IV drug abuse code list grouping” prior to the “measurement end date”;
  - “Diagnosis active: neurologic impairment” using “neurologic impairment code list grouping” prior to the “measurement end date”;
- **Numerator =**
  - “Diagnostic study performed: imaging study-spinal” using “imaging study-spinal code list grouping” before the “measurement end date”;
- **Exclusions =**
  - None;

### **Summary calculation**

Calculation is generic to all measures:

- Calculate the final denominator by adding all that meet denominator criteria.
- Subtract from the final denominator all that do not meet numerator criteria yet also meet exclusion criteria. Note some measures do not have exclusion criteria.
- The performance calculation is the number meeting numerator criteria divided by the final denominator.

- For measures with multiple patient populations, repeat this process for each patient population and report each result separately.
- For measures with multiple numerators, calculate each numerator separately within each population using the paired exclusion.

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<b>Measure set</b>	CLINICAL QUALITY MEASURE SET 2011-2012
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