**3.2 Summary Table**

This table does not contain all the criteria for the numerator and denominator. Adhere to the metric specification. Refer to the [General Guidance](#GeneralGuidance) section for information that applies across PRIME projects.

|  |
| --- |
| **3.2.4 – Appropriate Use of Imaging Studies for Low Back Pain (anytime)**  |
| **Specification Source:** PRIME Innovative Measure Steward |
| **Numerator:** *Appropriate Imaging for LBP:*Individuals from the denominator who **In the 6 months prior to or on the imaging date**, have documentation in the medical record of any of the clinical red flags detailed in [Table LBP-A](#LBPA) (refer to the measure specs)**OR*** **At any time in the patient’s medical history**, have documentation in the medical record of any of the clinical red flags detailed in Table [LBP-B](#LBPB) (refer to the measure specs)
 |
| **Denominator:** All individuals from the Project 3.2 Target Population aged 18 years or older at the beginning of the measurement period who had an outpatient or ED encounter with a principal diagnosis of low back pain during the measurement period and who received an imaging study (plain x-ray, MRI, CT scan) during the measurement period. |
| **Sub-Metric #1 Plain Film****Numerator:** Individuals from the denominator who:* **In the 6 months prior to or on the imaging date**, have documentation in the medical record of any of the clinical red flags detailed in [Table LBP-C](#LBPA) (refer to the measure specs)

**OR*** **At any time in the patient’s medical history**, have documentation in the medical record of any of the clinical red flags detailed in Table [LBP-D](#LBPB) (refer to the measure specs)

**Denominator:** All individuals from the Project 3.2 Target Population aged 18 years or older at the beginning of the measurement period who had an outpatient or ED encounter with a principal diagnosis of low back pain during the measurement period and who received a **plain x-ray** detailed in Table LBP-A during the measurement period. |
| **Sub-Metric #2 Advanced Imaging****Numerator:** Individuals from the denominator who:* **In the 6 months prior to or on the imaging date**, have documentation in the medical record of any of the clinical red flags detailed in [Table LBP-C](#LBPA) (refer to the measure specs)

**OR*** **At any time in the patient’s medical history**, have documentation in the medical record of any of the clinical red flags detailed in Table [LBP-D](#LBPB) (refer to the measure specs)

**Denominator:** All individuals from the Project 3.2 Target Population aged 18 years or older at the beginning of the measurement period who had an outpatient or ED encounter with a principal diagnosis of low back pain during the measurement period and who received an **advanced imaging study (MRI or CT scan)** detailed in Table LBP-B during the measurement period. |

**Project 3.2 Target Population**

Individuals are in the Project 3.2 target population if they meet either of the following criteria:

1. PRIME Eligible Population

OR

1. individuals with any acute care utilization (including Urgent Care, Emergency Department, and Inpatient encounters) at the PRIME entity during the measurement period

* + 1. **–** **Appropriate Use of Imaging Studies for Low Back Pain (anytime)**

**Summary of Changes from DY 14 Year End Reporting Manual**

* Title: Added “Appropriate”. Removed reference to HEDIS Low Back Pain measure.
* Metric description changed to reflect the restructuring of 3.2.4 into two metrics, each only assessing “Appropriate use of imaging for patients with low back pain”. Changed as follows:
	+ From “This metric examines the use of imaging for low back pain (LBP) with and without clinical indications of ‘red flags’ present.”
	+ To “This metric examines the appropriate use of imaging in patients with low back pain (LBP) who have documentation of clinical ‘red flags’ on or in the 6 months prior to the date of receipt of a plain film (Sub-Sub-Metric #1) or advanced imaging (Metric #2) for low back pain.”
* Denominator split into two denominators:
	+ Sub-Sub-Metric #1 Denominator : All eligible patients with low back pain who received a **plain x-ray** during the measurement period**.**
	+ Metric #2 Denominator : All eligible patients with low back pain who received either **an MRI or a CT Scan** during the measurement period.
* Denominator codes, replaced the HEDIS Imaging Study Value Set with two separate value sets included directly in the specifications: Plain X-ray Value Set, Table LBP-A and Advanced Imaging Value Set, Table LBP-B.
* Denominator Exclusions, correction made by replacing reference to “Table LBP-D”, to refer to HEDIS Inpatient Value Set
* Numerators, eliminated the Inappropriate Rate numerator and all associated language.
* Numerator Description removed, as duplicative of Metric Numerator
* Metric numerator duplicated, renamed as “Sub-Sub-Metric #1 Numerator” and “Metric #2 Numerator”, and repositioned to follow the respective metric’s denominator
* Moved Denominator Exclusions to follow Metric #2 Numerator
* Moved Denominator Codes and Numerator Codes under a new section titled “Metric Codes”, which follows Denominator Exclusions.
* Denominator Codes, added clarifiers to the respective value sets: “For both metrics”, “for Sub-Sub-Metric #1”, “For Metric #2”
* Numerator Codes
	+ Added to title “**for both Metrics #1 and #2”**
	+ renamed Tables LBP-A, LBP-B, and LBP-C, to be Tables LBP-C, LBP-D, and LBP-E
* Removed reference to NCQA Use of Imaging for Low Back Pain measure as no longer relevant to 3.2.4
* Table LBP-E, updated link to “most current HEDIS NDC List”

**Modification from Native Specification**

Specification Source: PRIME Innovative Metric Steward (Los Angeles County, Department of Health Services)

Metric Steward: Med Current

* N/A

**Value Sets for this metric:**

* HEDIS specs and value sets can also be obtained at the [NCQA Store](https://urldefense.proofpoint.com/v2/url?u=http-3A__store.ncqa.org_index.php_performance-2Dmeasurement_hedis-2Dpublications-2Doutline.html&d=DQMFAg&c=mw0DGsIRSWeeIwTtOgLlUYBaj_ULHm47-3qeImycAG0&r=J5cJUwCDEMX875BkPYijYq6Rd_OGqOewbhsz-vQdFf8&m=FUva6M6tSRROsH5FfIHgROEPVatUwCfVgfOxzr4vUtY&s=BtaJBmOyc5Zhfi-5woBCRt_E83v8VGHVeZDK4UmEQjk&e=). Refer to the *Technical Specifications for Health Plans*.
* The most current HEDIS NDC list can be found on [NCQA’s website](http://www.ncqa.org/hedis-quality-measurement/hedis-measures/hedis-2018/hedis-2018-ndc-license).

***Metric Description***

This metric examines the use of imaging for individuals with low back pain (LBP) and documentation of specified clinical ‘red flags’. This metric is reported as three rates, an overall appropriate imaging for low back pain rate, an appropriate plain x-ray for low back pain sub-metric rate, and an appropriate advanced imaging sub-metric rate.

**Overall Metric Denominator**

All individuals from the Project 3.2 Target Population aged 18 years or older at the beginning of the measurement periodwho had an outpatient or ED encounter with a principal diagnosis of low back pain, acute or chronic, during the measurement period and who received an imaging study ([Table LBP-A](#LBPA): Plain X-ray: [Table LBP-B](#LBPB): MRI or CT scan) during the measurement period.

**Overall Metric Numerator**

Individuals from the denominator who:

* **In the 6 months prior to or on the imaging date**, have documentation in the medical record of any of the clinical red flags detailed in [Table LBP-C](#LBPC)

**OR**

* **At any time in the patient’s medical history**, have documentation in the medical record of any of the clinical red flags detailed in [Table LBP-D](#LBPD).

***Sub-Metric #1: Plain X-ray***

**Sub-Metric #1 Description**

The two sub-metrics examine the appropriate use of imaging in patients with low back pain (LBP) during the measurement period who have documentation of clinical ‘red flags’ on or in the 6 months prior to the date of receipt of a plain film (Sub-Metric #1) or advanced imaging (Sub-Metric #2) for low back pain.

***Sub-Metric #1 Denominator***

All individuals from the Project 3.2 Target Population aged 18 years or older at the beginning of the measurement periodwho had an outpatient or ED encounter with a principal diagnosis of low back pain, acute or chronic, during the measurement period and who received a plain x-ray ([Table LBP-A](#LBPA)) during the measurement period.

***Sub-Metric #1 Numerator***

Individuals from Sub-Metric #1 denominator who:

* **In the 6 months prior to or on the imaging date**, have documentation in the medical record of any of the clinical red flags detailed in [Table LBP-C](#LBPC)

**OR**

* **At any time in the patient’s medical history**, have documentation in the medical record of any of the clinical red flags detailed in [Table LBP-D](#LBPD)

***Sub-Metric #2 Denominator***

All individuals from the Project 3.2 Target Population aged 18 years or older at the beginning of the measurement periodwho had an outpatient or ED encounter with a principal diagnosis of low back pain, acute or chronic, during the measurement period and who received an **advanced** imaging study ([Table LBP-B](#LBPB): MRI or CT scan) during the measurement period.

***Sub-Metric #2: Advanced Imaging***

***Sub-Metric #2 Numerator***

Individuals from Sub-Metric #2 denominator who:

* **In the 6 months prior to or on the imaging date**, have documentation in the medical record of any of the clinical red flags detailed in [Table LBP-C](#LBPC)

**OR**

* **At any time in the patient’s medical history**, have documentation in the medical record of any of the clinical red flags detailed in [Table LBP-D](#LBPD)

***Denominator Exclusion/s***

* Emergency Department visits that result in an inpatient stay (Inpatient Stay Value Set). An ED visit results in an inpatient stay when the ED date of service and the admission date for the inpatient stay are one calendar day apart or less.

***Metric Codes***

**Denominator Code/s (CPT, ICD10, other)**

* Uncomplicated Low Back Pain Value Set
* Imaging Study Value Set
* Plain X-ray Value Set - [Table LBP-A](#LBPA)
* Advanced Imaging Value Set - [Table LBP-B](#LBPB)
* Outpatient Value Set.
* ED Value Set
* Inpatient Stay Value Set

**Numerator Code/s (CPT, ICD10, other)**

* CLINICAL RED FLAG Codes: See Tables [LBP-C](#LBPC) and [LBP-D](#LBPD).
* Malignant Neoplasms Value Set
* Other Neoplasms Value Set
* History of Malignant Neoplasm Value Set
* Trauma Value Set
* IV Drug Abuse Value Set
* Neurologic Impairment Value Set
* HIV Value Set
* Spinal Infection Value Set
* Organ Transplant Other Than Kidney Value Set
* Kidney Transplant Value Set

**Reporting Business Logic**

TBD

**Definitions as applicable**

N/A

**Other Notes as applicable**

Data sources may include, but are not limited to: primary and secondary diagnoses, problem lists, encounter codes.

A higher Appropriate Rate indicates better quality.

**APPENDIX – Tables**

***Table LBP-A: Plain X-Ray Value Set***

|  |  |  |
| --- | --- | --- |
| **Description** | **Code** | **Code System** |
| X-ray exam of spine | 72020 | CPT |
| X-ray exam entire spi 1 vw | 72081 | CPT |
| X-ray exam entire spi 2/3 vw | 72082 | CPT |
| X-ray exam entire spi 4/5 vw | 72083 | CPT |
| X-ray exam entire spi 6/> vw | 72084 | CPT |
| X-ray exam of lower spine | 72100 | CPT |
| X-ray exam of lower spine | 72110 | CPT |
| X-ray exam of lower spine | 72114 | CPT |
| X-ray exam of lower spine | 72120 | CPT |
| X-ray exam sacroiliac joints | 72200 | CPT |
| X-ray exam sacroiliac joints | 72202 | CPT |
| X-ray exam of tailbone | 72220 | CPT |
|  |  |  |

***Table LBP-B: Advanced Imaging Value Set***

|  |  |  |
| --- | --- | --- |
| **Description** | **Code** | **Code System** |
|  |  |  |
| Ct lumbar spine w/o dye | 72131 | CPT |
| Ct lumbar spine w/dye | 72132 | CPT |
| Ct lumbar spine w/o & w/dye | 72133 | CPT |
|  |  |  |
| Mri lumbar spine w/o dye | 72148 | CPT |
| Mri lumbar spine w/dye | 72149 | CPT |
| Mri lumbar spine w/o & w/dye | 72158 | CPT |
| Mr angio spine w/o&w/dye | 72159 | CPT |

***Table LBP-C: Clinical Red Flags (6 month look-back)***

|  |  |  |
| --- | --- | --- |
| **Description** | **ICD-10 Diagnosis** | **Additional parameters** |
| Immunosuppression  | ICD-10: D80-D89, Z92.25ICD-9: 279, V87.46 |  |
| Cauda equina | G83.4Neurologic Impairment Value Set |  |
| Focal deficit & progressive/disabling symptoms | M79.2 |  |
| Unexplained weight loss or fever | R50.9, R63.4 |  |
| IV drug abuse | Using HEDIS® IV Drug Abuse Value Set |  |
| Surgery or intervention candidate | Codes for pre-operative/preprocedural examination: Z01.818 | Otherwise identify according to local system for tracking. |
| Persistent back pain >6 weeks despite conservative treatment | None | At least 6 weeks from time of first diagnosis with low back pain to date of imaging study.Conservative treatment defined as absence of intervention. Non-surgical management includes, but is not limited to: verbal advice, rest, directed exercise, medication/analgesia, massage therapy, physiotherapy, accupuncture). |
| Minor or low velocity trauma in patient aged 60+ years | S30-S39, V00-V79 | Age 60+ years as of 6 months prior to imaging study. |
| Osteoporosis | M80-M81 |  |
| Chronic steroid use | Z79.51, Z79.52 | Refer to *Instructions to identify Chronic Steroid Use,* below Table [LBP-E](#LBPE) |
| Spinal infection | Spinal Infection Value Set |  |
| Trauma | Trauma Value Set |  |

***Table LBP-D: Clinical Red Flags (any time in the patient’s medical record)***

|  |  |  |
| --- | --- | --- |
| **Description** | **ICD-10 Diagnosis** | **Additional parameters** |
| Hx of Cancer |  Using:* Malignant Neoplasms Value Set
* Other Neoplasms Value Set
* History of Malignant Neoplasm Value Set
 |  |
| Previous lumbar surgery | Z98.89 | Clarify that post-procedural state is specific to lumbar surgery. |
| Major Organ Transplant | Organ Transplant Other Than Kidney Value Set, Kidney Transplant Value Set |  |
| HIV | HIV Value Set |  |

**Table LBP-E: Corticosteroid Medications** (refer to most current [HEDIS NDC](http://www.ncqa.org/hedis-quality-measurement/hedis-measures/hedis-2019/hedis-2018-ndc-license) list)

|  |  |
| --- | --- |
| **Description** | **Prescription** |
| Corticosteroid | HydrocortisoneCortisonePrednisonePrednisolone | MethylprednisoloneTriamcinoloneDexamethasoneBetamethasone |

*Instructions to identify Chronic Steroid Use:* 90 consecutive days of corticosteroid treatment any time during the 12 months (1 year) prior to and including the date of the low back pain outpatient or ED encounter. To identify consecutive treatment days, identify calendar days covered by at least one dispensed corticosteroid (Table LBP-C). For overlapping prescriptions assume the individual started taking the second prescription after exhausting the first prescription. For example, if an individual had a 30 day prescription dispensed on June 1 and a 30-day prescription dispensed on June 26, there are 60 covered calendar days (June 1 – July 30). Count only medications dispensed during the 12 months (1 year) prior to and including the low back pain outpatient or ED encounter date. When identifying consecutive treatment days, do not count days’ supply that extend beyond the low back pain outpatient or ED encounter date. For example, if a member had a 90-day prescription dispensed on the low back pain outpatient or ED encounter date, there is one covered calendar day (the low back pain outpatient or ED encounter date). No gaps are allowed.

**Rationale**

Low back pain is prevalent in the United States, accounting for approximately 2.5 million outpatient clinical visits each year and affecting 75% of adults at some time in their lives[[1]](#footnote-2). Evidence shows that “imaging for low back pain without indications of serious underlying conditions does not improve clinical outcomes”[[2]](#footnote-3). Thus avoiding imaging for patients presenting without indications of serious underlying pathology can prevent unnecessary harm to patients and reduce healthcare costs.

The metric is a different from the 3.2.3 HEDIS Use of Imaging Studies for Low Back Pain measure, which examines 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 the diagnosis. In the 3.2.3 HEDIS measure, patients with clinically appropriate indications for imaging are excluded, and the measure is reported as an inverted rate (1 - [numerator/denominator]) so a higher score indicates appropriate treatment of low back pain (i.e., the proportion for whom imaging studies did not occur).

In comparison, this metric involves breaking out two measures that represent “appropriate” imaging of low back pain, both acute and chronic presentations, using plain radiography vs. advanced modalities (CT and MRI). In addition, “red flag” features identified by the American College of Radiology Appropriateness Criteria[[3]](#footnote-4) are incorporated as clinically appropriate indications for imaging. These criteria are approved for use under the CMS (Centers for Medicare and Medicaid Services) Appropriate Use Criteria Program, which mandates that ordering professionals use a qualified clinical decision support mechanism (CDSM) in order for furnishing professionals to receive reimbursement under Medicare Part B Outpatient claims for advanced diagnostic imaging services. The enactment date of this legislation is currently January 1, 2020 when a 1-year “education and testing” period begins, with reimbursement denials set to commence January 1, 2021.[[4]](#footnote-5)

This metric also increases the 28 day time interval for imaging to 6 months. Data from safety net health systems suggests that unnecessary imaging is performed for chronic LBP outside the 28-day acute window.

1. National Quality Measures Clearinghouse (NCQM). Measure summary: Use of imaging studies for low back pain: percentage of members 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 the diagnosis. In: National Quality Measures Clearinghouse (NQMC) [Website]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 1 Oct 2015. [Accessed 9 May 2018]. Available at: <https://www.qualitymeasures.ahrq.gov> [↑](#footnote-ref-2)
2. Chou R, Fu R, Carrino JA, Deyo RA (2009). Imaging strategies for low-back pain: systematic review and meta-analysis. The Lancet, 373(9662): 463-472. [Accessed 9 May 2018]. Available at: [https://doi.org/10.1016/S0140-6736(09)60172-0](https://doi.org/10.1016/S0140-6736%2809%2960172-0) [↑](#footnote-ref-3)
3. Patel ND, Broderick DF, Burns J, et al. ACR Appropriateness Criteria® Low Back Pain. American College of Radiology. [Accessed 1 February 2016]. Available at <https://acsearch.acr.org/docs/69483/Narrative/>. [↑](#footnote-ref-4)
4. Centers for Medicare and Medicaid Services. Appropriate Use Criteria Program [Website]. 29 November 2017. [Accessed 9 May 2018]. Available at: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Appropriate-Use-Criteria-Program/index.html> [↑](#footnote-ref-5)