

Patient Safety, Fall 2017 Cycle: CDP Report

FINAL TECHNICAL REPORT

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**NATIONAL
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Executive Summary

Patient safety-related events occur across healthcare settings from hospitals to clinics to nursing homes and include healthcare-associated infections (HAIs), medication errors, falls, and other potentially avoidable occurrences. Medical errors are preventable patient safety events that are estimated to cause hundreds of thousands of preventable deaths each year in the United States.

Adverse drug events (ADE) are common patient safety events that account for nearly 700,000 emergency department visits and 100,000 hospitalizations each year. Additionally, nearly 5 percent of hospitalized patients experience one or more ADEs. In recent years, there has been a rapid rise in another patient safety event: opioid-related morbidity and mortality, which caused an estimated 42,000 deaths in 2016. One factor contributing to this increase is a rise in opioid prescribing that occurred over the past two decades.

The National Quality Forum's (NQF) portfolio of safety measures spans various topic areas and is designed to measure and report on patient safety events and practices across a variety of settings. Public accountability and quality improvement programs use many measures from the NQF portfolio. For example, measures exist in the patient safety portfolio that address the opioid epidemic by identifying high rates of opioid prescribing, with the goal of reducing the outcomes of opioid-related morbidity and mortality. The Patient Safety Standing Committee oversees the NQF patient safety measure portfolio, evaluates newly submitted and previously endorsed measures against NQF's measure evaluation criteria, provides feedback on gaps in measurement, and conducts ad hoc reviews.

NQF implemented changes in 2017 to the consensus development process to create a more agile and efficient process for measure endorsement. Each year, NQF now offers two measure submission opportunities for each topic area, and NQF has also expanded the measure evaluation commenting period for the public and NQF members.

For this project, the Standing Committee evaluated one newly submitted measure against NQF's standard evaluation criteria: 3316e *Safe Use of Opioids – Concurrent Prescribing* (Centers for Medicare & Medicaid Services); this measure is endorsed.

The Patient Safety final technical report for the fall 2017 cycle presents the results of the evaluation of one measure considered under the Consensus Development Process (CDP).

The body of this report includes a brief summary of the measure currently under review. [Appendix A](#) provides a detailed summary of the Committee's discussion and ratings of the criteria for the measure.

Introduction

The Institute of Medicine (IOM)—now called the National Academy of Medicine (NAM)—defined patient safety as “freedom from accidental injury due to medical care or medical errors.”¹ Patient safety problems cause hundreds of thousands of preventable deaths each year; a recent analysis estimated that up to 440,000 Americans die annually from medical errors in United States hospitals.² A 2010 study by the Department of Health and Human Services (HHS) Office of Inspector General (OIG) estimated that over a quarter of hospitalized Medicare beneficiaries experience an adverse event during their hospital stay; subsequent studies in other care settings estimated that the adverse event rates among Medicare patients in Skilled Nursing Facilities (SNFs) and rehabilitation hospitals are 33 percent and 29 percent, respectively.^{3,4,5} Adverse events can take many forms, including healthcare-associated infections (HAIs), medication errors, falls, pressure ulcers, and other potentially avoidable occurrences.

An adverse drug event (ADE) refers to harm resulting from a medication. ADEs account for nearly 700,000 emergency department visits and 100,000 hospitalizations each year. Additionally, nearly 5 percent of hospitalized patients experience an ADE. However, dramatic increases in deaths due to opioid medications have largely taken place outside the hospital. Opioid-related morbidity and mortality caused an estimated 42,000 deaths in 2016. Opioid addiction most commonly originates with prescription opioids, and 40 percent of all opioid overdose deaths involve an opioid prescription. Therefore, the opioid epidemic has led to emphasis on reducing rates of prescribing, updating guidelines for clinicians, and promoting drug monitoring programs.^{6,7} The Agency for Healthcare Research and Quality’s Medical Expenditure Panel Survey showed that the total number of people in the U.S. civilian noninstitutionalized population purchasing one or more outpatient prescribed opioids increased from 27.2 million to 36.7 million when comparing 2002 with 2012 data.⁸

Although the healthcare industry has made major improvements in measuring and addressing patient harms, tens of thousands of preventable injuries to patients still occur each year, and many of these harms have dire consequences. Through efforts like the Partnership for Patients and other national and regional initiatives, measurement activities have helped drive substantial improvements in patient safety. According to the *2015 National Healthcare Quality and Disparities Report*, there was an estimated 17 percent reduction in the overall rate of hospital-acquired conditions, including catheter-associated urinary tract infections, pressure ulcers, and adverse drug events, between 2010 and 2014.⁹

If medical error were a disease, it would rank as the third leading cause of death in the U.S.¹⁰ The costs of these events are high and are passed on in various ways—higher insurance premiums, taxes, lost work time and wages, and lower quality of life, to name a few. Proactively addressing patient safety will protect patients from harm and lead to more affordable, effective, and equitable care.

The National Quality Forum (NQF) has over 15 years of history focusing on patient safety. Through various projects, NQF has previously endorsed over 100 consensus standards related to patient safety. In addition, NQF endorsed 34 safe practices in the 2010 update of *Safe Practices for Better Healthcare*,¹¹ and 29 Serious Reportable Events (SREs).¹² The Safe Practices, SREs, and NQF-endorsed patient safety measures are important tools for tracking and improving patient safety performance in American healthcare. However, significant gaps remain in the measurement of patient safety. There is a need to further expand available patient safety measures across settings and ensure that measures are harmonized.

Consensus Development Process Redesign

Since the last Patient Safety Standing Committee report in 2017, NQF has changed several things about the way it reviews measures. NQF has been committed to improving the quality of its own consensus development process (CDP). NQF held a process improvement Kaizen event in May 2017 and identified several ways to improve the CDP.

NQF now offers two measure submission opportunities per year for each topic area. Due to the anticipated increase in opportunities for measure submission, NQF has consolidated the 22 measure review topical areas to 15 topical areas. In addition, NQF has established a Scientific Methods Panel to assist in conducting methodological reviews of complex measures. Shifting the scientific, methodological review of these measures to this Panel and to NQF staff will allow for greater engagement and participation by consumers, patients, and purchasers on NQF standing committees.

Additional improvements in NQF's measure endorsement process include expanding the measure evaluation commenting period for the public and NQF members to 16 consecutive weeks; simplifying the structure and content of the NQF measure evaluation reports; enhancing education and training for stakeholder participation and engagement; improving access to and exchange of measure information between the endorsement and Measure Applications Partnership (MAP) processes; and allowing only NQF members to signal their support for measures under review.

NQF Portfolio of Performance Measures for Patient Safety Conditions

The Patient Safety Standing Committee (see [Appendix C](#)) oversees NQF's portfolio of Patient Safety measures that includes measures for medication safety, healthcare associated infections, falls, pressure ulcers, and other safety concerns (see [Appendix B](#)). This portfolio contains 73 measures: 23 process measures, 42 outcome measures, two intermediate outcome measures, two structure measures, and four composite measures (see Table 1 below).

Table 1. NQF Patient Safety Portfolio of Measures

	Process	Outcome	Intermediate Outcome	Structure	Composite	Total
Medication Safety	11	1	—	—	—	12
Healthcare-Associated Infections	2	7	—	—	—	9
Perioperative Safety	—	8	—	—	—	8
Falls	1	6	—	—	—	7
Mortality	—	5	—	—	1	6
Venous Thromboembolism	3	1	—	—	—	4
Pressure Ulcers	—	4	—	—	—	4
Workforce Safety	—	—	—	2	1	3
Radiation Safety	1	—	1	—	—	2
Other	5	10	1	—	2	18
Total	23	42	2	2	4	73

Additional measures related to patient safety are assigned to other projects. These include various diabetes assessment and screening measures (Prevention and Population Health/Behavioral Health and Substance Use projects), primary care and chronic illness measures (Primary Care and Chronic Illness project), ACEI/ARB medication measures (Cardiovascular project), complications and outcomes measures (Prevention and Population Health/Surgery projects), and cost and efficiency measures (Cost and Efficiency project).

Patient Safety Measure Evaluation

On January 23, 2018, the Patient Safety Standing Committee evaluated one new measure against [NQF's standard evaluation criteria](#).

Table 2. Patient Safety Measure Evaluation Summary

	Maintenance	New	Total
Measures under consideration	0	1	1
Endorsed measures	0	1	1
Reasons for not recommending	Importance – N/A Scientific Acceptability – N/A Overall – N/A Competing Measure – N/A	Importance – N/A Scientific Acceptability – N/A Overall – N/A Competing Measure – N/A	

Comments Received Prior to Committee Evaluation

NQF solicits comments on endorsed measures on an ongoing basis through the [Quality Positioning System \(QPS\)](#). In addition, NQF solicits comments for a continuous 16-week period during each evaluation cycle via an online tool located on the project webpage. For this evaluation cycle, the commenting period opened on November 28, 2017 and closed on March 30, 2018. No comments were submitted and shared with the Committee prior to the measure evaluation meeting.

Comments Received After Committee Evaluation

The continuous 16-week public commenting period with NQF member support closed on March 30, 2018. Following the Committee's evaluation of the measures under consideration, NQF received six comments from six organizations (including six member organizations) and individuals pertaining to the draft report and to the measures under consideration. All comments for each measure under consideration have been summarized in [Appendix A](#).

Throughout the 16-week continuous public commenting period, NQF members had the opportunity to express their support ('support' or 'do not support') for each measure submitted for endorsement consideration to inform the Committee's recommendations. No NQF members provided their expression of support.

Summary of Measure Evaluation

The following brief summary of the measure evaluation highlights the major issues that the Committee considered. Details of the Committee’s discussion and ratings of the criteria for the measure are included in [Appendix A](#).

3316e Safe Use of Opioids – Concurrent Prescribing (Centers for Medicare & Medicaid Services): Endorsed

Description: Patients age 18 years and older prescribed two or more opioids or an opioid and benzodiazepine concurrently at discharge from a hospital-based encounter (inpatient or emergency department [ED], including observation stays); **Measure Type:** Process; **Level of Analysis:** Facility; **Setting of Care:** Emergency Department and Services, Inpatient/Hospital; **Data Source:** Electronic Health Records

This new electronic clinical quality measure calculates the proportion of patients taking two or more opioids or opioids and benzodiazepines concurrently. Unintentional opioid overdose fatalities have become an epidemic in the last 20 years and a major public health concern in the United States. The goal of the measure is to reduce preventable mortality and reduce the costs associated with adverse events related to opioid use by encouraging providers to identify patients with concurrent prescriptions of opioids or opioids and benzodiazepines and discouraging providers from prescribing two or more opioids or opioids and benzodiazepines at the same time.

During the initial measure evaluation web meeting on January 23, 2018, the Committee did not reach consensus on the reliability, validity, and usability subcriteria and overall recommendation for endorsement on measure 3316e. The Committee indicated its strong support of measures that address the opioid crisis. However, Committee members had concerns about how this particular measure was specified (e.g., it was too broad to encompass every clinical situation), and they also had concerns about unintended consequences. Committee members questioned whether there were sufficient data presented by the developer to demonstrate that the measure is an appropriate assessment of inappropriate prescriptions. Some Committee members expressed concern that the denominator exclusions did not account for instances where prescribing two opioids together or an opioid and a benzodiazepine together may be appropriate. Specifically, the Committee described several patient populations with chronic pain—such as patients with sickle cell disease—where a prescription for both a short-acting and long-acting opioid may be appropriate care. In addition, because this measure is intended to assess inappropriate prescriptions of opioids or an opioid and a benzodiazepine in inpatient and emergency department (ED) settings, there were concerns that the measure does not assess whether there was a pre-existing prescription (i.e., present on admission exclusions) for medication combinations. Committee members were also concerned that the measure could potentially cause patient safety problems, particularly if facilities are compelled to change existing outpatient regimens to meet the measure rather than customizing individualized medication regimens as appropriate for certain patients.

During the post-comment web meeting on April 17, 2018, the measure developer (Mathematica Policy Research), responded directly to concerns of the Committee and those raised during the public comment period.

The developer recognized that there are situations when concurrent prescribing is clinically appropriate, but noted that the measure's exclusions are based on Centers for Disease Control and Prevention (CDC) guidelines. In addition, other potential exclusions, including those raised by public commenters and Committee members, were examined during testing, and only a very small portion of those cases (0 to 3 percent) were eligible for the numerator. After reviewing these results, the developer's expert panel recommended continuing to include patients with these conditions in the measure, especially since many of these patients are particularly at risk for adverse events.

With regard to dosing thresholds, the developer noted that existing professional, organizational, state, and federal agencies vary in their dosing recommendations. In addition, dosing data can be very difficult to collect and calculate accurately. Given these challenges, the developer decided not to include a dosing threshold in the measure.

The developer also addressed the concerns about potential unintended consequences, stating that its intent is to address the known consequences of concurrent prescribing and the risk of adverse events, including opioid overdose and death. The developer noted that implementation of a similar measure in the field has proven to be helpful for patient safety, and has not revealed any systematic occurrence of undertreatment.

With regard to the limited testing, the developer agreed that it is important to test measures in representative institutions and that the developer did attempt to recruit a broad variety of hospitals, but only three of these hospitals met the required criteria and were able to test the measure within the six-month time window.

Regarding the measurement timeframe, the developer noted that the measure was developed for use in the Centers for Medicare & Medicaid Services' (CMS) Inpatient Quality Reporting (IQQR) and Outpatient Quality Reporting (OQR) programs, and that CMS would ultimately determine the measurement period at a future date, once the measure is implemented.

The developer agreed with commenters that data collected from the measure as currently specified could serve as a useful starting point for hospitals and clinicians, and added that data collected during initial implementation may offer more evidence for actionable refinements to the measure. A Committee member noted that CMS typically requires a period of public reporting before measures are implemented in payment programs.

The Committee re-voted on reliability, validity, usability, and overall suitability for endorsement during the post-comment web meeting on April 17, 2018. Ultimately, the Committee reached consensus on the reliability, validity, usability subcriteria and overall recommendation of endorsement. Measure 3316e was recommended for endorsement.

Measures Withdrawn from Consideration

Five measures previously endorsed by NQF were not re-submitted for scheduled maintenance of endorsement or have been withdrawn during the endorsement evaluation process. Endorsement for these measures was removed.

Table 3. Measures Withdrawn from Consideration

Measure	Reason for withdrawal
0239 Perioperative Care: Venous Thromboembolism (VTE) Prophylaxis	Developer is not seeking re-endorsement. Measure will no longer be in use in the future.
0266 Patient Fall	Developer is not seeking re-endorsement. No rationale provided.
0751 Risk Adjusted Urinary Tract Infection Outcome Measure After Surgery	Developer has decided to not seek re-endorsement due to lack of resources.
0371e Venous Thromboembolism Prophylaxis	Developer has withdrawn measure from their program and no longer maintains measure.
0372e Intensive Care Unit Venous Thromboembolism Prophylaxis	Developer has withdrawn measure from their program and no longer maintains measure.

References

- ¹ Institute of Medicine (IOM). *To Err is Human: Building a Safer Health System*. Washington, DC: National Academy Press; 1999.
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- ³ HHS, Office of Inspector General (OIG). *Adverse Events in Hospitals: National Incidence Among Medicare Beneficiaries*. Washington, DC: HHS; 2010.
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- ⁵ HHS, OIG. *Adverse Events in Rehabilitation Hospitals: National Incidence Among Medicare Beneficiaries*. Washington, DC: HHS; 2016.
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- ⁷ Centers for Disease Control (CDC). Opioid Overdose. <https://www.cdc.gov/drugoverdose/>. Last accessed February 2018.
- ⁸ AHRQ. Supporting HHS's opioid initiative. <https://www.ahrq.gov/professionals/systems/primary-care/opioids/index.html>. Last accessed February 2018.
- ⁹ AHRQ. *2015 National Healthcare Quality and Disparities Report and 5th Anniversary Update on the National Quality Strategy*. Rockville, MD: AHRQ; 2016.
- ¹⁰ Makary MA, Daniel M. Medical error—the third leading cause of death in the US. *BMJ*. 2016;353:i2139.
- ¹¹ National Quality Forum (NQF). *Safe Practices for Better Healthcare—2010 Update*. Washington, DC: NQF; 2010. Available at <http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=25689>. Last accessed February 2018.
- ¹² NQF. List of SREs website. http://www.qualityforum.org/Topics/SREs/List_of_SREs.aspx. Last accessed February 2018.

Appendix A: Details of Measure Evaluation

Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient

Endorsed Measure

3316e Safe Use of Opioids – Concurrent Prescribing

[Submission](#) | [Specifications](#)

Description: Patients age 18 years and older prescribed two or more opioids or an opioid and benzodiazepine concurrently at discharge from a hospital-based encounter (inpatient or emergency department [ED], including observation stays)

Numerator Statement: Patients prescribed two or more opioids or an opioid and benzodiazepine at discharge.

Denominator Statement: Patients age 18 years and older prescribed an opioid or a benzodiazepine at discharge from a hospital-based encounter (inpatient stay less than or equal to 120 days or emergency department encounters, including observation stays) during the measurement period.

Exclusions: Denominator exclusions: The following encounters are excluded from the denominator:

- Encounters for patients with an active diagnosis of cancer during the encounter
- Encounters for patients who are ordered for palliative care during the encounter
- Inpatient encounters with length of stay greater than 120 days

Denominator exceptions: None.

Adjustment/Stratification: N/A

Level of Analysis: Facility

Setting of Care: Emergency Department and Services, Inpatient/Hospital

Type of Measure: Process

Data Source: Electronic Health Records

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING [01/23/2018]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence: 1b. Performance Gap)

1a. Evidence: **H-4; M-16; L-0; I-1** 1b. Performance Gap: **H-2; M-15; L-0; I-3**

Rationale:

- The developer provided a clinical practice guideline from the [2016 CDC Guidelines for Prescribing Opioids for Chronic Pain](#) to support the avoidance of prescribing opioid pain medication and benzodiazepines concurrently whenever possible. The developer also summarized a systematic review of the evidence suggesting an increased risk of overdose events associated with opioid use and co-prescription of opioids with benzodiazepines.
- Committee members agreed that there is strong evidence linking the use of opioids and benzodiazepines with adverse drug events. However, members noted that the evidence does not appear to directly address concurrent prescription of opioids and benzodiazepines.

- Committee members were concerned about whether there were sufficient data to demonstrate that this is a sensitive measure of “inappropriate” prescriptions. Members pointed out that there are many cases where prescribing two opioids together or an opioid and a benzodiazepine together may be appropriate.
- Overall, the Committee agreed that the measure meets the evidence subcriterion.
- The developer presented performance data for eight testing hospitals from three large tertiary health systems, in three states. Performance rates observed during testing aligned with those in the literature; between 5 to 15 percent of patients receiving concurrent opioid prescriptions, and 5 to 20 percent receiving concurrent opioid-benzodiazepine prescription in an inpatient or outpatient hospital setting. The developer reports that there were higher rates of concurrent prescribing in the inpatient setting compared to the emergency department (ED) setting across test sites.
- The Committee did not express any major concerns with the performance gap data.

2. Scientific Acceptability of Measure Properties: The measure meets the Reliability and Validity criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-1; M-14; L-1; I-1** 2b. Validity: **M-11; L-5; I-1**

Rationale:

- Data element testing was used to support the reliability and validity of this measure. The assessment included EHR-extracted data from each of three test sites (eight hospitals in total) for the time frame October 1, 2013, to September 30, 2015.
- A split-half sample approach was used to estimate the reliability of the performance rate. The measure’s reliability coefficient across eight hospitals was 0.99. A reliability score of 0.00 implies that all the variability in a measure is attributable to measurement error. A reliability of 1.00 implies that all the variability is attributable to real differences in performance. The higher the reliability score, the greater the confidence of distinguishing the performance of one provider from another. This is an appropriate test for measure score reliability.
- In addition to data element testing, face validity of the measure score was systematically assessed to support the validity of this measure. Twelve expert work group members and three testing site affiliated staff (N = 15 respondents) evaluated the face validity of the measure and measure score through a survey. Seventy-three percent of respondents strongly agreed or agreed that the measure will likely reduce the incidence of concurrent prescribing of opioid-opioid and opioid-benzodiazepines at discharge in the inpatient and emergency department (ED) settings.
- Members again noted that there are many cases where prescribing two opioids together or an opioid and a benzodiazepine together may be appropriate, but denominator exclusions did not adequately address such cases. For example, there are several patient populations with chronic pain—such as patients with sickle cell disease—for which a prescription for both a short-acting and long-acting opioid may be appropriate care.
- In addition, because this is a measure meant to assess inpatient and emergency department (ED) settings, some Committee members were concerned that the measure specifications were too broad and did not include any assessment of whether there was a pre-existing prescription (i.e., present on admission exclusions) for the medication combinations of opioid-opioid or opioid-benzodiazepines.

- Committee members also noted that the measure could potentially cause unintentional consequences, particularly if facilities are compelled to change existing outpatient regimens to meet the measure rather than customizing individualized medication regimens that may be appropriate for certain patients.
- Due to concerns about the measure's specifications and potential threats to validity noted above, the Committee initially did not reach consensus on the reliability and validity subcriteria during the January 23, 2018 measure evaluation web meeting. The Committee was primarily concerned about the measure specifications and potential for unintended consequences. There were concerns that providers in the ED (emergency department) and hospital may decide to change existing medication regimens for patients who are on combinations of medications that meet measure criteria (e.g. a sickle cell patient who is on two opioids), and that these patients would not be excluded from the measure. This concern was also echoed by some of the public commenters. The Committee, however, re-voted on the measure during the post-comment web meeting on April 17, 2018 and the measure passed the reliability and validity criteria. The Committee believed that the developer was able to adequately address all of the earlier concerns with input from their expert panel that had explicitly discussed these issues. The Panel noted that the populations of concern to the Committee only represented a small proportion of patients (<3%) for whom the measure would apply.

3. Feasibility: H-6; M-12; L-2; I-1

(3a. Data generated during care; 3b. Electronic sources; and 3c. Data collection can be implemented (eMeasure feasibility assessment of data elements and logic)

Rationale:

- The measure is constructed using electronic health records. All data elements are available in defined fields in electronic health records (EHRs). Upon a vote, the Committee agreed the measure met this criterion.

4. Use and Usability

(4a. Use; 4a1. Accountability and transparency; 4a2. Feedback on the measure by those being measured and others; 4b. Usability; 4b1. Improvement; 4b2. The benefits to patients outweigh evidence of unintended negative consequences to patients)

4a. Use: **Pass-18; No Pass-2** 4b. Usability: **H-1; M-10; L-6; I-1**

Rationale:

- Although not currently used in an accountability program, the developer has submitted the measure through the Measures Under Consideration process for the CMS Hospital Inpatient and Outpatient Quality Reporting Programs.
- The developer collected feedback from clinical quality/data analytics staff, as well as other providers and some physicians at the test site locations. Providers at the test sites were unsurprised by their measure performance scores, which aligned with their expectations of the rate of concurrent prescribing at their hospitals during the measurement period. Some Committee members questioned whether or not providers see discontinuing the practice of concurrent prescribing as an important issue to measure.
- Overall, the Committee agreed that the measure meets the use subcriterion.
- Committee members were concerned about potential unintended consequences, such as a patient who legitimately benefited from dual opioid (e.g. long and short acting for intractable or

inoperable pain) or opioid and benzodiazepine (e.g. migraine) might be deprived of helpful treatment. There were also concerns with the harm associated with withdrawal of medications.

- A Committee member stated that the measure directly addresses an area of high-risk prescribing. The emphasis in this type of measure is in understanding that some patients may justifiably need the therapy; therefore, from a system level analysis, the goal is not zero but a defensible low rate.
- Although not a must-pass subcriterion, the Committee did not initially reach consensus on usability, due to concerns with potential unintended consequences; however, the Committee revoted on the measure during the post-comment web meeting on April 17, 2018 and the measure passed the usability criteria following input from the developer.

5. Related and Competing Measures

- This measure is related to #2940: Use of Opioids at High Dosage in Persons Without Cancer, #2950: Use of Opioids from Multiple Providers in Persons Without Cancer, and #2951: Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer.
- Three measures were identified as related to measure 3316e, as they focus on measuring and reducing inappropriate opioid prescriptions; however, the three related measures are specified for the outpatient setting, whereas 3316e focuses on ED visits and inpatient admissions. Committee members noted that it would be desirable for these measures to be harmonized across settings as people move between outpatient and inpatient settings, but recognized that the health care system may not currently be capable of achieving such linkages with limitations in interoperability and data sharing.

6. Standing Committee Recommendation for Endorsement: Yes-15; No-3 Recommended for Endorsement

Rationale

The Standing Committee initially did not reach consensus on the reliability, validity, and usability subcriteria and overall recommendation of endorsement. The Committee indicated its strong support of measures that addresses the opioid crisis. However, Committee members had concerns about how this particular measure was specified. The Committee was particularly concerned that the measure was too broad, and resulted in unintended consequences. However, the Committee re-voted on the measure during the post-comment web meeting on April 17, 2018 and the measure is now recommended for endorsement. Initial concerns about the specifications and unintended consequences were addressed by the developer.

7. Public and Member Comment

- Six commenters recommended potentially necessary exclusions, such as patients with sickle cell disease, patients undergoing chronic substance abuse treatment, patients with certain hematological and neurological conditions, and patients presenting to the ED with existing concurrent prescriptions.
 - Developer Response: We recognize that there may be some clinically necessary situations for concurrent prescriptions of opioids and benzodiazepines and we agree with the need to properly treat these patients. As recommended by our expert panels, we looked into single-condition exclusions, specifically sickle cell disease and substance use therapy and found that a very small portion of cases eligible for the numerator (0 to

3.4 percent) fell into these category. Furthermore, after reviewing the testing results, clinicians from our expert workgroup recommended continuing to include patients for whom concurrent prescribing is medically necessary because experts stated these populations (1) have the highest risk of receiving concurrent prescriptions; and (2) can experience a lag in adverse events. In addition, there are currently no guidelines supporting exclusion of patients who may require concurrent prescriptions from the measure, other than cancer and palliative care. However, we will consider these comments and evaluate opportunities to refine the measure.

- One commenter recommended determining dosing thresholds to identify inappropriate versus appropriate concurrent prescribing.
 - Developer Response: The existing professional organizations, states, and federal agency developed guidelines for opioid prescribing share some common elements, including dosing thresholds, cautious titration, and risk mitigation strategies such as using risk assessment tools, treatment contracts, and urine drug testing. However, there is considerable variability in the specific recommendations (e.g., range of dosing thresholds of 90 MME/day to 200 MME/day), audience (e.g., primary care clinicians versus specialists), use of evidence (e.g., systematic review, grading of evidence and recommendations, and role of expert opinion), and rigor of methods for addressing conflict of interest. There's currently not an evidence base strong enough to specify a certain threshold deemed safe for the inpatient setting so we did not include dosing thresholds in the specification.
- Six commenters expressed concerns about potential unintended consequences of the measure, such as emergency physicians making changes to patients' medication regimens instead of outpatient physicians or primary care providers, potential incentives to reduce emphasis on pain control, and/or promoting rapid dose tapers that could be harmful to patients.
 - Developer Response: We recognize that there may be some clinically necessary situations for concurrent prescriptions of opioids and benzodiazepines and we agree with the need to properly treat these patients. As recommended by our expert panels, we looked into single-condition exclusions, specifically sickle cell disease and substance use therapy and found that a very small portion of cases eligible for the numerator (0 to 3.4 percent) fell into these category. Furthermore, after reviewing the testing results, clinicians from our expert workgroup recommended continuing to include patients for whom concurrent prescribing is medically necessary because experts stated these populations (1) have the highest risk of receiving concurrent prescriptions; and (2) can experience a lag in adverse events. In addition, there are currently no guidelines supporting exclusion of patients who may require concurrent prescriptions from the measure, other than cancer and palliative care. However, we will consider these comments and evaluate opportunities to refine the measure.

7. Public and Member Comment (continued)

- Two commenters expressed concern about the limited testing conducted for this measure, with one commenter suggesting that the testing should be expanded beyond two EHR systems, and another suggesting that rural and nonacademic hospitals should have been included.
 - Developer Response: We agree that voluntary data collected by this measure, as it is currently specified, could potentially serve as a useful starting point for hospitals and clinicians and may be advantageous for performance improvement. Data collected at

the national level during the initial implementation phase may offer more evidence for actionable refinements than retesting the measure at only a few hospitals.

We agree that it is important to understand performance in rural and non-academic hospitals. We attempted to recruit a broad variety of hospitals and, in accordance with NQF guidelines, include data from at least two different EHR systems.

Overall, performance rates from site were on par with the literature. Field testing also showed that overall concurrent prescribing rate of 18.2% in the inpatient setting and 6.1% in ED settings, which aligned with the literature, that is, studies of multiple claims and prescription databases have shown that among patients who receive opioids in an inpatient or outpatient hospital setting, 5 to 15 percent of patients receive concurrent opioid prescriptions, and 5 to 20 percent receive concurrent opioid and benzodiazepine prescriptions.

- One commenter expressed concern that the measurement period timeframe is not clearly specified, suggesting that it is unclear whether CMS and others would implement the measure using a 12-month, 24-month, or other time period. A two-year timeframe was used for the opportunity for improvement information and in testing; however, the specifications and Health Quality Measures Format (HQMF) do not require this two-year period.
 - Developer Response: We developed the Safe Use of Opioids—Concurrent Prescribing measure for the Hospital Inpatient Quality Reporting (IQR) and Hospital Outpatient Quality Reporting (OQR) programs. CMS will determine the proposed measurement period at a future date if the measure is implemented.
- While noting that the measure may be useful for quality improvement and information-gathering purposes, some commenters recommended collecting data voluntarily for one to two years before the measure is implemented for accountability purposes (such as payment or public reporting programs).
 - Developer Response: We agree that voluntary data collected by this measure, as it is currently specified, could potentially serve as a useful starting point for hospitals and clinicians and may be advantageous for performance improvement. Data collected at the national level during the initial implementation phase may offer more evidence for actionable refinements than retesting the measure at only a few hospitals.
- The Committee reviewed all the received public and member comments, as well as the developer's responses and responded accordingly:
 - Committee Response: The Committee reviewed these comments along with the developer's responses during their deliberations on the post-comment web meeting on April 17. The Committee then re-voted on the criteria where consensus was not reached and on the measure's overall suitability for endorsement. The Committee was satisfied by the developer's response and recommended the measure for endorsement.

8. Consensus Standards Approval Committee (CSAC) Vote (May 8, 2018): Yes-17; No-0

Decision: Approved for endorsement

9. Appeals

No appeals received.

Appendix B: Patient Safety Portfolio—Use in Federal Programs

NQF #	Title	Federal Programs: Finalized as of February 8, 2018
0022	Use of High Risk Medications in the Elderly	Merit-Based Incentive Payment System (MIPS) Program
0097	Medication Reconciliation Post-Discharge	N/A
0101	Falls: Screening for Future Fall Risk	Merit-Based Incentive Payment System (MIPS) Program
0138	National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure	N/A
0139	National Healthcare Safety Network (NHSN) Central line-associated Bloodstream Infection (CLABSI) Outcome Measure	N/A
0141	Patient Fall Rate	N/A
0202	Falls with injury	N/A
0204	Skill mix (Registered Nurse [RN], Licensed Vocational/Practical Nurse [LVN/LPN], unlicensed assistive personnel [UAP], and contract)	N/A
0205	Nursing Hours per Patient Day	N/A
0206	Practice Environment Scale - Nursing Work Index (PES-NWI) (composite and five subscales)	N/A
0231	Pneumonia Mortality Rate (IQI #20)	N/A
0239	Perioperative Care: Venous Thromboembolism (VTE) Prophylaxis	Merit-Based Incentive Payment System (MIPS) Program
0266	Percentage of ASC admissions experiencing a fall in the ASC.	N/A
0337	Pressure Ulcer Rate (PDI 2)	N/A
0345	Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate (PSI15)	N/A
0346	Iatrogenic Pneumothorax Rate (PSI 6)	N/A
0347	Death Rate in Low-Mortality Diagnosis Related Groups (PSI02)	N/A
0348	Iatrogenic Pneumothorax Rate (PDI 5)	N/A
0349	Transfusion Reaction Count (PSI 16)	N/A
0350	Transfusion Reaction Count (PDI 13)	N/A
0352	Failure to Rescue In-Hospital Mortality (risk adjusted)	N/A
0353	Failure to Rescue 30-Day Mortality (risk adjusted)	N/A

NQF #	Title	Federal Programs: Finalized as of February 8, 2018
0362	Retained Surgical Item or Unretrieved Device Fragment Count (PDI 03)	N/A
0363	Retained Surgical Item or Unretrieved Device Fragment Count (PSI 05)	N/A
0419e	Documentation of Current Medications in the Medical Record	Merit-Based Incentive Payment System (MIPS) Program
0450	Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate (PSI 12)	N/A
0468	Hospital 30-Day, All-Cause, Risk-Standardized Mortality Rate (RSMR) Following Pneumonia Hospitalization	N/A
0500	Severe Sepsis and Septic Shock: Management Bundle	N/A
0513	Thorax CT—Use of Contrast Material	N/A
0530	Mortality for Selected Conditions	N/A
0531	PSI 90: Patient Safety and Adverse Events Composite (Composite Measure)	N/A
0553	Care for Older Adults (COA) – Medication Review	N/A
0555	INR Monitoring for Individuals on Warfarin	N/A
0556	INR for Individuals Taking Warfarin and Interacting Anti-Infective Medications	N/A
0674	Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay)	N/A
0678	Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short-Stay)	N/A
0679	Percent of High Risk Residents with Pressure Ulcers (Long Stay)	N/A
0684	Percent of Residents with a Urinary Tract Infection (Long-Stay)	N/A
0686	Percent of Residents Who Have/Had a Catheter Inserted and Left in Their Bladder (long stay)	N/A
0687	Percent of Residents Who Were Physically Restrained (Long Stay)	N/A
0689	Percent of Residents Who Lose Too Much Weight (Long-Stay)	N/A
0708	Proportion of Patients Hospitalized with Pneumonia that have a Potentially Avoidable Complication (during the Index Stay or in the 30-day Post-Discharge Period)	N/A

NQF #	Title	Federal Programs: Finalized as of February 8, 2018
0709	Proportion of patients with a chronic condition that have a potentially avoidable complication during a calendar year.	N/A
0733	Operative Mortality Stratified by the Five STS-EACTS Mortality Categories	Merit-Based Incentive Payment System (MIPS) Program
0751	Risk Adjusted Urinary Tract Infection Outcome Measure After Surgery	N/A
0753	American College of Surgeons – Centers for Disease Control and Prevention (ACS-CDC) Harmonized Procedure Specific Surgical Site Infection (SSI) Outcome Measure	N/A
1365	Child and Adolescent Major Depressive Disorder (MDD): Suicide Risk Assessment	Merit-Based Incentive Payment System (MIPS) Program
1463	Standardized Hospitalization Ratio for Admissions	End-Stage Renal Disease Quality Incentive Program
1523	Rate of Open Repair of Small or Moderate Abdominal Aortic Aneurysms (AAA) Where Patients Are Discharged Alive	Merit-Based Incentive Payment System (MIPS) Program
1716	National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Methicillin-resistant Staphylococcus aureus (MRSA) Bacteremia Outcome Measure	N/A
1717	National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset Clostridium difficile Infection (CDI) Outcome Measure	N/A
1893	Hospital 30-Day, all-cause, risk-standardized mortality rate (RSMR) following chronic obstructive pulmonary disease (COPD)	N/A
2065	Gastrointestinal Hemorrhage Mortality Rate (IQI #18)	N/A
2337	Antipsychotic Use in Children Under 5 Years Old	N/A
2371	Annual Monitoring for Patients on Persistent Medications (MPM-AD)	N/A
2456	Medication Reconciliation: Number of Unintentional Medication Discrepancies per Patient	N/A
2720	National Healthcare Safety Network (NHSN) Antimicrobial Use Measure	N/A
2723	Wrong-Patient Retract-and-Reorder (Wrong Patient-RAR) Measure	N/A

NQF #	Title	Federal Programs: Finalized as of February 8, 2018
2726	Prevention of Central Venous Catheter (CVC)-Related Bloodstream Infections	N/A
2732e	INR Monitoring for Individuals on Warfarin after Hospital Discharge	N/A
2820	Pediatric Computed Tomography (CT) Radiation Dose	N/A
2909	Perioperative Hemorrhage or Hematoma Rate (PSI 09)	N/A
2940	Use of Opioids at High Dosage in Persons Without Cancer	N/A
2950	Use of Opioids from Multiple Providers in Persons Without Cancer	N/A
2951	Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer	N/A
2983e	Potassium Sample Hemolysis in the Emergency Department	N/A
2988	Medication Reconciliation for Patients Receiving Care at Dialysis Facilities	N/A
2993	Potentially Harmful Drug-Disease Interactions in the Elderly	N/A
3000	PACE-Acquired Pressure Ulcer/Injury Prevalence Rate	N/A
3001	PACE Participant Fall Rate	N/A
3003	PACE Participant Falls With Injury Rate	N/A
3025	Ambulatory Breast Procedure Surgical Site Infection (SSI) Outcome Measure	N/A
3052	Venous Thromboembolism Prophylaxis	N/A
3053	Intensive Care Unit Venous Thromboembolism Prophylaxis	N/A
3136	GAPPS: Rate of preventable adverse events per 1,000 patient-days among pediatric inpatients	N/A
3215	Adult Inpatient Risk Adjusted Sepsis Mortality	N/A

Appendix C: Patient Safety Standing Committee and NQF Staff

STANDING COMMITTEE

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Appendix D: Measure Specifications

3316e Safe Use of Opioids – Concurrent Prescribing

STEWARD

Centers for Medicare & Medicaid Services

DESCRIPTION

Patients age 18 years and older prescribed two or more opioids or an opioid and benzodiazepine concurrently at discharge from a hospital-based encounter (inpatient or emergency department [ED], including observation stays)

TYPE

Process

DATA SOURCE

Electronic Health Records Hospitals collect EHR data using certified electronic health record technology (CEHRT). The human readable and XML artifacts of the health quality measures format (HQMF) of the measure are contained in the eCQM specifications attached in question S.2a. No additional tools are used for data collection for eCQMs.

LEVEL

Facility

SETTING

Emergency Department and Services, Inpatient/Hospital

NUMERATOR STATEMENT

Patients prescribed two or more opioids or an opioid and benzodiazepine at discharge.

NUMERATOR DETAILS

Presence of two or more new opioids at discharge resulting in concurrent therapy is represented by QDM datatype and value set of Medication, Discharge: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2).

Presence of a new opioid and a new benzodiazepine prescription at discharge resulting in concurrent therapy is represented by QDM datatype and value sets of Medication, Discharge: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2) and Medication, Discharge: Benzodiazepines (2.16.840.1.113762.1.4.1125.1).

Presence of an existing opioid and a new opioid or benzodiazepine prescription at discharge resulting in concurrent therapy is represented by QDM datatypes and value sets of Medication, Active: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2) and Medication, Discharge: Benzodiazepines (2.16.840.1.113762.1.4.1125.1) or Medication, Discharge: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2).

Presence of an existing benzodiazepine and a new opioid prescription at discharge resulting in concurrent therapy is represented by QDM datatypes and value sets of Medication, Active:

Benzodiazepines (2.16.840.1.113762.1.4.1125.1) and Medication, Discharge: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2).

Presence of an existing benzodiazepine and an existing opioid prescription at discharge resulting in concurrent therapy is represented by QDM datatype and value sets of Medication, Active: Benzodiazepines (2.16.840.1.113762.1.4.1125.1) and Medication, Active: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2).

Presence of two or more existing opioids at discharge resulting in concurrent therapy is represented by QDM datatype and value set of Medication, Active: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2).

To access the value sets for the measure, please visit the Value Set Authority Center (VSAC), sponsored by the National Library of Medicine, at <https://vsac.nlm.nih.gov/>.

DENOMINATOR STATEMENT

Patients age 18 years and older prescribed an opioid or a benzodiazepine at discharge from a hospital-based encounter (inpatient stay less than or equal to 120 days or emergency department encounters, including observation stays) during the measurement period.

DENOMINATOR DETAILS

Inpatient Encounters are represented using the QDM datatype and value set of Encounter, Performed: Encounter Inpatient (OID: 2.16.840.1.113883.3.666.5.307). Length of stay is calculated within the measure based on encounter start and end dates. ED Encounters including observation stay are represented using the QDM datatype and value set of Encounter, Performed: Encounter ED and Observation Stay (OID: 2.16.840.1.113883.3.3157.1002.81).

Patients with an opioid or a benzodiazepine active on admission and continued at discharge are represented by the following QDM datatype and value sets:

- Medication, Active: Schedule II and Schedule III Opioids (OID: 2.16.840.1.113762.1.4.1125.2)
- Medication, Active: Benzodiazepines (OID: 2.16.840.1.113762.1.4.1125.1)

Patients who received a new opioid or benzodiazepine prescription at discharge from a qualifying encounter, not those patients who were given an opioid or benzodiazepine as part of their encounter treatment, are represented by the following QDM datatype and value sets:

- Medication, Discharge: Schedule II and Schedule III Opioids (OID: 2.16.840.1.113762.1.4.1125.2)
- Medication, Discharge: Benzodiazepines (OID: 2.16.840.1.113762.1.4.1125.1)

To access the value sets for the measure, please visit the Value Set Authority Center, sponsored by the National Library of Medicine, at <https://vsac.nlm.nih.gov/>. A list of value sets for the measure is attached in the Excel workbook provided for question S.2b.

EXCLUSIONS

Denominator exclusions: The following encounters are excluded from the denominator:

- Encounters for patients with an active diagnosis of cancer during the encounter
- Encounters for patients who are ordered for palliative care during the encounter
- Inpatient encounters with length of stay greater than 120 days

Denominator exceptions: None.

EXCLUSION DETAILS

Active cancer diagnosis or palliative care order during the encounter are represented using the QDM datatype and following value sets:

- Diagnosis: Cancer (2.16.840.1.113883.3.526.3.1010)
- Intervention, Performed: Palliative care (2.16.840.1.113762.1.4.1125.3)
- Intervention, Order: Palliative care (2.16.840.1.113762.1.4.1125.3)

RISK ADJUSTMENT

No risk adjustment or risk stratification

STRATIFICATION

Not applicable; this measure is not stratified.

TYPE SCORE

Rate/proportion better quality = lower score

ALGORITHM

Please see the attached HQMF specifications for the complete measure logic. Additionally, a flow diagram of the denominator and numerator logic is attached to the NQF submission form as a supplemental document in response to question A.1, 'Opioids_LogicFlow_for S.14 response.pdf'.

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Limited proprietary coding is contained in the Measure specifications for user convenience. Users of proprietary code sets should obtain all necessary licenses from the owners of the code sets.

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Appendix E1: Related and Competing Measures (tabular version)

Comparison of NQF #2940, #2950, #2951, and #3316e

	2940 Use of Opioids at High Dosage in Persons Without Cancer	2950 Use of Opioids from Multiple Providers in Persons Without Cancer	2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer	3316e Safe Use of Opioids – Concurrent Prescribing
Steward	Pharmacy Quality Alliance	Pharmacy Quality Alliance	Pharmacy Quality Alliance	Centers for Medicare & Medicaid Services
Description	The proportion (XX out of 1,000) of individuals without cancer receiving prescriptions for opioids with a daily dosage greater than 120mg morphine equivalent dose (MED) for 90 consecutive days or longer.	The proportion (XX out of 1,000) of individuals without cancer receiving prescriptions for opioids from four (4) or more prescribers AND four (4) or more pharmacies.	The proportion (XX out of 1,000) of individuals without cancer receiving prescriptions for opioids with a daily dosage greater than 120mg morphine equivalent dose (MED) for 90 consecutive days or longer, AND who received opioid prescriptions from four (4) or more prescribers AND four (4) or more pharmacies.	Patients age 18 years and older prescribed two or more opioids or an opioid and benzodiazepine concurrently at discharge from a hospital-based encounter (inpatient or emergency department [ED], including observation stays)
Type	Process	Process	Process	Process
Data Source	Claims	Claims	Claims	Electronic Health Records
Level	Health Plan, Other, Population : Regional and State	Health Plan, Other, Population : Regional and State	Health Plan, Other, Population : Regional and State	Facility
Setting	Other, Outpatient Services	Other, Outpatient Services	Other, Outpatient Services	Emergency Department and Services, Inpatient/Hospital
Numerator Statement	Any member in the denominator with opioid prescription claims where the MED is greater than 120mg for 90 consecutive days or longer* *MED calculation is included in S.6 Numerator Details	Any member in the denominator who received opioid prescription claims from 4 or more prescribers AND 4 or more pharmacies.	Any member in the denominator with opioid prescription claims where the MED is greater than 120mg for 90 consecutive days or longer* AND who received opioid prescriptions from 4 or more prescribers AND 4 or more pharmacies. *MED calculation is included in S.6 Numerator Details	Patients prescribed two or more opioids or an opioid and benzodiazepine at discharge.
Numerator Details	Any member in the denominator with opioid prescription claims greater than 120mg MED for 90 consecutive days or longer* (See Table Opioids-A: Opioid Medications) *Identifying members with prescription opioids that exceeded the MED threshold: To identify members with prescription opioids that exceeded the MED threshold, each claim is to be converted into the MED using the appropriate conversion factor associated with the opioid product of that prescription claim (see Appendix A). The MED for each day’s claims then are summed to determine the total MED for that day. For each member in the denominator: 1. Calculate the MED for each opioid prescription claim during the measurement period, using the following equations: • # of Opioid Dosage Units per day = (Opioid claim quantity) / (Opioid claim days supply) • MED Daily Dose per claim = (# of opioid dosage units per day) X (# mg opioid per dosage unit) X (MED conversion factor) 2. Sum the daily MEDs of all opioid claims for each day to arrive at a total daily MED for each member. 3. Identify the days where the MED threshold is exceeded. 4. Any member, for whom the MED threshold is exceeded for 90 consecutive days or longer, meets the criteria for the MED component of the numerator. Table Opioid-A: Opioid Medications (MED conversion factor)	For each member in the denominator: 1. Calculate the number of unique pharmacy providers associated with an opioid prescription claim. 2. Calculate the number of unique prescribers associated with an opioid prescription claim. 3. Any member with four or more unique pharmacy providers AND four or more unique prescribers meets the criteria for the Numerator.	Any member in the denominator with opioid prescription claims greater than 120mg MED for 90 consecutive days or longer* AND who received opioid prescriptions from 4 or more prescribers AND 4 or more pharmacies(See Table Opioids-A: Opioid Medications) *Identifying members with prescription opioids that exceeded the MED threshold: To identify members with prescription opioids that exceeded the MED threshold, each claim is to be converted into the MED using the appropriate conversion factor associated with the opioid product of that prescription claim (see Appendix A). The MED for each day’s claims then are summed to determine the total MED for that day. For each member in the denominator: 1. Calculate the MED for each opioid prescription claim during the measurement period, using the following equations: • # of Opioid Dosage Units per day = (Opioid claim quantity) / (Opioid claim days supply) • MED Daily Dose per claim = (# of opioid dosage units per day) X (# mg opioid per dosage unit) X (MED conversion factor) 2. Sum the daily MEDs of all opioid claims for each day to arrive at a total daily MED for each member. 3. Identify the days where the MED threshold is exceeded. 4. Any member, for whom the MED threshold is exceeded for 90 consecutive days or longer, meets the criteria for the MED component of the numerator. 5. From the members meeting the criteria for the MED component of the numerator (4), calculate the number of unique pharmacy	Presence of two or more new opioids at discharge resulting in concurrent therapy is represented by QDM datatype and value set of Medication, Discharge: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2). Presence of a new opioid and a new benzodiazepine prescription at discharge resulting in concurrent therapy is represented by QDM datatype and value sets of Medication, Discharge: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2) and Medication, Discharge: Benzodiazepines (2.16.840.1.113762.1.4.1125.1). Presence of an existing opioid and a new opioid or benzodiazepine prescription at discharge resulting in concurrent therapy is represented by QDM datatypes and value sets of Medication, Active: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2) and Medication, Discharge: Benzodiazepines (2.16.840.1.113762.1.4.1125.1) or Medication, Discharge: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2). Presence of an existing benzodiazepine and a new opioid prescription at discharge resulting in concurrent therapy is represented by QDM datatypes and value sets of Medication, Active: Benzodiazepines (2.16.840.1.113762.1.4.1125.1) and Medication, Discharge: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2). Presence of an existing benzodiazepine and an existing opioid prescription at discharge

	2940 Use of Opioids at High Dosage in Persons Without Cancer	2950 Use of Opioids from Multiple Providers in Persons Without Cancer	2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer	3316e Safe Use of Opioids – Concurrent Prescribing
	buprenorphine patch (12.6) buprenorphine tab or film (10) butorphanol (7) codeine (0.15) dihydrocodeine (0.25) fentanyl buccal or SL tablets, or lozenze/troche (0.13) fentanyl film or oral spray (0.18) fentanyl nasal spray (0.16) fentanyl patch (7.2) hydrocodone (1) hydromorphone (4) levorphanol (11) meperidine (0.1) methadone (3) morphine (1) opium (1) oxycodone (1.5) oxymorphone (3) pentazocine (0.37) tapentadol (0.4) tramadol (0.1) *Note: Injectables and Opioid cough and cold products and combination products containing buprenorphine and naloxone (e.g., BunavailTM, Suboxone®, Zubsolv®) are excluded from the MED calculations. Ionsys® (fentanyl transdermal patch) is also excluded as it is only for inpatient use; It is also only available through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS)		providers associated with an opioid prescription claim. 6. From the members meeting the criteria for the MED component of the numerator (4), calculate the number of unique prescribers associated with an opioid prescription claim. 7. From the members meeting the criteria for the MED component of the numerator (4), any member with four or more unique pharmacy providers AND four or more unique prescribers meets the criteria for the Numerator. Table Opioid-A: Opioid Medications (MED conversion factor) buprenorphine patch (12.6) buprenorphine tab or film (10) butorphanol (7) codeine (0.15) dihydrocodeine (0.25) fentanyl buccal or SL tablets, or lozenze/troche (0.13) fentanyl film or oral spray (0.18) fentanyl nasal spray (0.16) fentanyl patch (7.2) hydrocodone (1) hydromorphone (4) levorphanol (11) meperidine (0.1) methadone (3) morphine (1) opium (1) oxycodone (1.5) oxymorphone (3) pentazocine (0.37) tapentadol (0.4) tramadol (0.1) *Note: Injectables and Opioid cough and cold products and combination products containing buprenorphine and naloxone (e.g., BunavailTM, Suboxone®, Zubsolv®) are excluded from the MED calculations. Ionsys® (fentanyl transdermal patch) is also excluded as it is only for inpatient use; It is also only available through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS)	resulting in concurrent therapy is represented by QDM datatype and value sets of Medication, Active: Benzodiazepines (2.16.840.1.113762.1.4.1125.1) and Medication, Active: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2). Presence of two or more existing opioids at discharge resulting in concurrent therapy is represented by QDM datatype and value set of Medication, Active: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2). To access the value sets for the measure, please visit the Value Set Authority Center (VSAC), sponsored by the National Library of Medicine, at https://vsac.nlm.nih.gov/.
Denominator Statement	Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is greater than or equal to 15.	Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is greater than or equal to 15.	Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is greater than or equal to 15.	Patients age 18 years and older prescribed an opioid or a benzodiazepine at discharge from a hospital-based encounter (inpatient stay less than or equal to 120 days or emergency department encounters, including observation stays) during the measurement period.
Denominator Details	Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is greater than or equal to 15. Table Opioid-A: Opioid Medications buprenorphine butorphanol codeine dihydrocodeine fentanyl hydrocodone hydromorphone levorphanol meperidine methadone morphine opium oxycodone oxymorphone pentazocine tapentadol tramadol	Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is greater than or equal to 15. Table Opioid-A: Opioid Medications buprenorphine butorphanol codeine dihydrocodeine fentanyl hydrocodone hydromorphone levorphanol meperidine methadone morphine opium oxycodone oxymorphone pentazocine tapentadol tramadol	Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is greater than or equal to 15. Table Opioid-A: Opioid Medications buprenorphine butorphanol codeine dihydrocodeine fentanyl hydrocodone hydromorphone levorphanol meperidine methadone morphine opium oxycodone oxymorphone pentazocine tapentadol tramadol	Inpatient Encounters are represented using the QDM datatype and value set of Encounter, Performed: Encounter Inpatient (OID: 2.16.840.1.113883.3.666.5.307). Length of stay is calculated within the measure based on encounter start and end dates. ED Encounters including observation stay are represented using the QDM datatype and value set of Encounter, Performed: Encounter ED and Observation Stay (OID: 2.16.840.1.113883.3.3157.1002.8 1). Patients with an opioid or a benzodiazepine active on admission and continued at discharge are represented by the following QDM datatype and value sets: - Medication, Active: Schedule II and Schedule III Opioids (OID: 2.16.840.1.113762.1.4.1125.2) - Medication, Active: Benzodiazepines (OID: 2.16.840.1.113762.1.4.1125.1)

	2940 Use of Opioids at High Dosage in Persons Without Cancer	2950 Use of Opioids from Multiple Providers in Persons Without Cancer	2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer	3316e Safe Use of Opioids – Concurrent Prescribing
				Patients who received a new opioid or benzodiazepine prescription at discharge from a qualifying encounter, not those patients who were given an opioid or benzodiazepine as part of their encounter treatment, are represented by the following QDM datatype and value sets: - Medication, Discharge: Schedule II and Schedule III Opioids (OID: 2.16.840.1.113762.1.4.1125.2) - Medication, Discharge: Benzodiazepines (OID: 2.16.840.1.113762.1.4.1125.1) To access the value sets for the measure, please visit the Value Set Authority Center, sponsored by the National Library of Medicine, at https://vsac.nlm.nih.gov/. A list of value sets for the measure is attached in the Excel workbook provided for question S.2b.
Exclusions	Any member with a diagnosis for Cancer or a Prescription Drug Hierarchical Condition Category (RxHCC) 8, 9, 10, or 11 for Payment Year 2015; or RxHCC 15, 16, 17, 18, or 19 for Payment Year 2016 (see list in S.11 and S.2b); or a hospice indicator (Medicare Part D) from the enrollment database.	Any member with a diagnosis for Cancer or a Prescription Drug Hierarchical Condition Category (RxHCC) 8, 9, 10, or 11 for Payment Year 2015; or RxHCC 15, 16, 17, 18, or 19 for Payment Year 2016; (see list in S.11 and S.2b); or a hospice indicator from the enrollment database.	Any member with a diagnosis for Cancer or a Prescription Drug Hierarchical Condition Category (RxHCC) 8, 9, 10, or 11 for Payment Year 2015; or RxHCC 15, 16, 17, 18, or 19 for Payment Year 2016 (see list in S.11 and S.2b); or a hospice indicator (Medicare Part D) from the enrollment database.	The following encounters are excluded from the denominator: - Encounters for patients with an active diagnosis of cancer during the encounter - Encounters for patients who are ordered for palliative care during the encounter - Inpatient encounters with length of stay greater than 120 days Denominator exceptions: None.
Exclusion Details	Hospice exclusion: Exclude those members identified in the Medicare Enrollment Database as being enrolled in hospice. Cancer exclusion: For Payment Year 2015: RxHCC 8, 9, 10, or 11. For Payment Year 2016: RxHCC 15, 16, 17, 18, or 19 ICD 9 and 10 Codes to Identify Cancer: Please see attachment in S2.b	Hospice Exclusion: Exclude those members identified in the Medicare Enrollment Database as being enrolled in hospice. Cancer Exclusion: For Payment Year 2015: RxHCC 8, 9, 10, or 11. For Payment Year 2016: RxHCC 15, 16, 17, 18, or 19 ICD 9 and 10 Codes to Identify Cancer: Please see attachment in S2.b	Hospice exclusion: Exclude those members identified in the Medicare Enrollment Database as being enrolled in hospice. Cancer exclusion: For Payment Year 2015: RxHCC 8, 9, 10, or 11. For Payment Year 2016: RxHCC 15, 16, 17, 18, or 19 ICD 9 and 10 Codes to Identify Cancer: Please see attachment in S2.b	Active cancer diagnosis or palliative care order during the encounter are represented using the QDM datatype and following value sets: - Diagnosis: Cancer (2.16.840.1.113883.3.526.3.1010) - Intervention, Performed: Palliative care (2.16.840.1.113762.1.4.1125.3) - Intervention, Order: Palliative care (2.16.840.1.113762.1.4.1125.3)
Type Score	Rate/proportion better quality = lower score	Rate/proportion better quality = lower score	Rate/proportion better quality = lower score	Rate/proportion better quality = lower score

Appendix E2: Related and Competing Measures (narrative version)

Comparison of NQF #2940, #2950, #2951, and #3316e

2940 Use of Opioids at High Dosage in Persons Without Cancer

2950 Use of Opioids from Multiple Providers in Persons Without Cancer

2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer

3316e Safe Use of Opioids – Concurrent Prescribing

Steward

2940 Use of Opioids at High Dosage in Persons Without Cancer

Pharmacy Quality Alliance

2950 Use of Opioids from Multiple Providers in Persons Without Cancer

Pharmacy Quality Alliance

2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer

Pharmacy Quality Alliance

3316e Safe Use of Opioids – Concurrent Prescribing

Centers for Medicare & Medicaid Services

Description

2940 Use of Opioids at High Dosage in Persons Without Cancer

The proportion (XX out of 1,000) of individuals without cancer receiving prescriptions for opioids with a daily dosage greater than 120mg morphine equivalent dose (MED) for 90 consecutive days or longer.

2950 Use of Opioids from Multiple Providers in Persons Without Cancer

The proportion (XX out of 1,000) of individuals without cancer receiving prescriptions for opioids from four (4) or more prescribers AND four (4) or more pharmacies.

2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer

The proportion (XX out of 1,000) of individuals without cancer receiving prescriptions for opioids with a daily dosage greater than 120mg morphine equivalent dose (MED) for 90 consecutive days or longer, AND who received opioid prescriptions from four (4) or more prescribers AND four (4) or more pharmacies.

3316e Safe Use of Opioids – Concurrent Prescribing

Patients age 18 years and older prescribed two or more opioids or an opioid and benzodiazepine concurrently at discharge from a hospital-based encounter (inpatient or emergency department [ED], including observation stays)

Type

2940 Use of Opioids at High Dosage in Persons Without Cancer

Process

2950 Use of Opioids from Multiple Providers in Persons Without Cancer

Process

2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer
Process

3316e Safe Use of Opioids – Concurrent Prescribing
Process

Data Source

2940 Use of Opioids at High Dosage in Persons Without Cancer
Claims

2950 Use of Opioids from Multiple Providers in Persons Without Cancer
Claims

2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer
Claims

3316e Safe Use of Opioids – Concurrent Prescribing
Electronic Health Records

Level

2940 Use of Opioids at High Dosage in Persons Without Cancer
Health Plan, Other, Population : Regional and State

2950 Use of Opioids from Multiple Providers in Persons Without Cancer
Health Plan, Other, Population : Regional and State

2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer
Health Plan, Other, Population : Regional and State

3316e Safe Use of Opioids – Concurrent Prescribing
Facility

Setting

2940 Use of Opioids at High Dosage in Persons Without Cancer
Other, Outpatient Services

2950 Use of Opioids from Multiple Providers in Persons Without Cancer
Other, Outpatient Services

2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer
Other, Outpatient Services

3316e Safe Use of Opioids – Concurrent Prescribing
Emergency Department and Services, Inpatient/Hospital

Numerator Statement

2940 Use of Opioids at High Dosage in Persons Without Cancer

Any member in the denominator with opioid prescription claims where the MED is greater than 120mg for 90 consecutive days or longer*

*MED calculation is included in S.6 Numerator Details

2950 Use of Opioids from Multiple Providers in Persons Without Cancer

Any member in the denominator who received opioid prescription claims from 4 or more prescribers AND 4 or more pharmacies.

2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer

Any member in the denominator with opioid prescription claims where the MED is greater than 120mg for 90 consecutive days or longer* AND who received opioid prescriptions from 4 or more prescribers AND 4 or more pharmacies.

*MED calculation is included in S.6 Numerator Details

3316e Safe Use of Opioids – Concurrent Prescribing

Patients prescribed two or more opioids or an opioid and benzodiazepine at discharge.

Numerator Details

2940 Use of Opioids at High Dosage in Persons Without Cancer

Any member in the denominator with opioid prescription claims greater than 120mg MED for 90 consecutive days or longer* (See Table Opioids-A: Opioid Medications)

*Identifying members with prescription opioids that exceeded the MED threshold:

To identify members with prescription opioids that exceeded the MED threshold, each claim is to be converted into the MED using the appropriate conversion factor associated with the opioid product of that prescription claim (see Appendix A). The MED for each day's claims then are summed to determine the total MED for that day.

For each member in the denominator:

1. Calculate the MED for each opioid prescription claim during the measurement period, using the following equations:

- # of Opioid Dosage Units per day = (Opioid claim quantity) / (Opioid claim days supply)
- MED Daily Dose per claim = (# of opioid dosage units per day) X (# mg opioid per dosage unit) X (MED conversion factor)

2. Sum the daily MEDs of all opioid claims for each day to arrive at a total daily MED for each member.

3. Identify the days where the MED threshold is exceeded.

4. Any member, for whom the MED threshold is exceeded for 90 consecutive days or longer, meets the criteria for the MED component of the numerator.

Table Opioid-A: Opioid Medications (MED conversion factor)

buprenorphine patch (12.6) buprenorphine tab or film (10) butorphanol (7) codeine (0.15) dihydrocodeine (0.25) fentanyl buccal or SL tablets, or lozenge/troche (0.13) fentanyl film or oral spray (0.18) fentanyl nasal spray (0.16) fentanyl patch (7.2) hydrocodone (1) hydromorphone (4) levorphanol (11) meperidine (0.1) methadone (3) morphine (1) opium (1) oxycodone (1.5) oxymorphone (3) pentazocine (0.37) tapentadol (0.4) tramadol (0.1)

*Note: Injectables and Opioid cough and cold products and combination products containing buprenorphine and naloxone (e.g., Bunavail™, Suboxone®, Zubsolv®) are excluded from the MED calculations. Ionsys® (fentanyl transdermal patch) is also excluded as it is only for inpatient use; It is also only available through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS)

2950 Use of Opioids from Multiple Providers in Persons Without Cancer

For each member in the denominator:

1. Calculate the number of unique pharmacy providers associated with an opioid prescription claim.
2. Calculate the number of unique prescribers associated with an opioid prescription claim.
3. Any member with four or more unique pharmacy providers AND four or more unique prescribers meets the criteria for the Numerator.

2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer

Any member in the denominator with opioid prescription claims greater than 120mg MED for 90 consecutive days or longer* AND who received opioid prescriptions from 4 or more prescribers AND 4 or more pharmacies(See Table Opioids-A: Opioid Medications)

*Identifying members with prescription opioids that exceeded the MED threshold:

To identify members with prescription opioids that exceeded the MED threshold, each claim is to be converted into the MED using the appropriate conversion factor associated with the opioid product of that prescription claim (see Appendix A). The MED for each day's claims then are summed to determine the total MED for that day.

For each member in the denominator:

1. Calculate the MED for each opioid prescription claim during the measurement period, using the following equations:
 - # of Opioid Dosage Units per day = (Opioid claim quantity) / (Opioid claim days supply)
 - MED Daily Dose per claim = (# of opioid dosage units per day) X (# mg opioid per dosage unit) X (MED conversion factor)
2. Sum the daily MEDs of all opioid claims for each day to arrive at a total daily MED for each member.
3. Identify the days where the MED threshold is exceeded.
4. Any member, for whom the MED threshold is exceeded for 90 consecutive days or longer, meets the criteria for the MED component of the numerator.
5. From the members meeting the criteria for the MED component of the numerator (4), calculate the number of unique pharmacy providers associated with an opioid prescription claim.
6. From the members meeting the criteria for the MED component of the numerator (4), calculate the number of unique prescribers associated with an opioid prescription claim.
7. From the members meeting the criteria for the MED component of the numerator (4), any member with four or more unique pharmacy providers AND four or more unique prescribers meets the criteria for the Numerator.

Table Opioid-A: Opioid Medications (MED conversion factor)

buprenorphine patch (12.6) buprenorphine tab or film (10) butorphanol (7) codeine (0.15) dihydrocodeine (0.25) fentanyl buccal or SL tablets, or lozenge/troche (0.13) fentanyl film or oral spray (0.18) fentanyl nasal spray (0.16) fentanyl patch (7.2) hydrocodone (1) hydromorphone (4) levorphanol (11) meperidine (0.1) methadone (3) morphine (1) opium (1) oxycodone (1.5) oxymorphone (3) pentazocine (0.37) tapentadol (0.4) tramadol (0.1)

*Note: Injectables and Opioid cough and cold products and combination products containing buprenorphine and naloxone (e.g., Bunavail™, Suboxone®, Zubsolv®) are excluded from the MED calculations. lonsys® (fentanyl transdermal patch) is also excluded as it is only for inpatient use; It is also only available through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS)

3316e Safe Use of Opioids – Concurrent Prescribing

Presence of two or more new opioids at discharge resulting in concurrent therapy is represented by QDM datatype and value set of Medication, Discharge: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2).

Presence of a new opioid and a new benzodiazepine prescription at discharge resulting in concurrent therapy is represented by QDM datatype and value sets of Medication, Discharge: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2) and Medication, Discharge: Benzodiazepines (2.16.840.1.113762.1.4.1125.1).

Presence of an existing opioid and a new opioid or benzodiazepine prescription at discharge resulting in concurrent therapy is represented by QDM datatypes and value sets of Medication, Active: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2) and Medication, Discharge: Benzodiazepines (2.16.840.1.113762.1.4.1125.1) or Medication, Discharge: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2).

Presence of an existing benzodiazepine and a new opioid prescription at discharge resulting in concurrent therapy is represented by QDM datatypes and value sets of Medication, Active: Benzodiazepines (2.16.840.1.113762.1.4.1125.1) and Medication, Discharge: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2).

Presence of an existing benzodiazepine and an existing opioid prescription at discharge resulting in concurrent therapy is represented by QDM datatype and value sets of Medication, Active: Benzodiazepines (2.16.840.1.113762.1.4.1125.1) and Medication, Active: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2).

Presence of two or more existing opioids at discharge resulting in concurrent therapy is represented by QDM datatype and value set of Medication, Active: Schedule II and Schedule III Opioids (2.16.840.1.113762.1.4.1125.2).

To access the value sets for the measure, please visit the Value Set Authority Center (VSAC), sponsored by the National Library of Medicine, at <https://vsac.nlm.nih.gov/>.

Denominator Statement

2940 Use of Opioids at High Dosage in Persons Without Cancer

Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is greater than or equal to 15.

2950 Use of Opioids from Multiple Providers in Persons Without Cancer

Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is greater than or equal to 15.

2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer

Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is greater than or equal to 15.

3316e Safe Use of Opioids – Concurrent Prescribing

Patients age 18 years and older prescribed an opioid or a benzodiazepine at discharge from a hospital-based encounter (inpatient stay less than or equal to 120 days or emergency department encounters, including observation stays) during the measurement period.

Denominator Details

2940 Use of Opioids at High Dosage in Persons Without Cancer

Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is greater than or equal to 15.

Table Opioid-A: Opioid Medications

buprenorphine butorphanol codeine dihydrocodeine fentanyl hydrocodone
hydromorphone levorphanol meperidine methadone morphine opium
oxycodone oxymorphone pentazocine tapentadol tramadol

2950 Use of Opioids from Multiple Providers in Persons Without Cancer

Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is greater than or equal to 15.

Table Opioid-A: Opioid Medications

buprenorphine butorphanol codeine dihydrocodeine fentanyl hydrocodone
hydromorphone levorphanol meperidine methadone morphine opium
oxycodone oxymorphone pentazocine tapentadol tramadol

2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer

Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is greater than or equal to 15.

Table Opioid-A: Opioid Medications

buprenorphine butorphanol codeine dihydrocodeine fentanyl hydrocodone
hydromorphone levorphanol meperidine methadone morphine opium
oxycodone oxymorphone pentazocine tapentadol tramadol

3316e Safe Use of Opioids – Concurrent Prescribing

Inpatient Encounters are represented using the QDM datatype and value set of Encounter, Performed: Encounter Inpatient (OID: 2.16.840.1.113883.3.666.5.307). Length of stay is calculated within the measure based on encounter start and end dates. ED Encounters including observation stay are represented using the QDM datatype and value set of Encounter, Performed: Encounter ED and Observation Stay (OID: 2.16.840.1.113883.3.3157.1002.81).

Patients with an opioid or a benzodiazepine active on admission and continued at discharge are represented by the following QDM datatype and value sets:

- Medication, Active: Schedule II and Schedule III Opioids (OID: 2.16.840.1.113762.1.4.1125.2)
- Medication, Active: Benzodiazepines (OID: 2.16.840.1.113762.1.4.1125.1)

Patients who received a new opioid or benzodiazepine prescription at discharge from a qualifying encounter, not those patients who were given an opioid or benzodiazepine as

part of their encounter treatment, are represented by the following QDM datatype and value sets:

- Medication, Discharge: Schedule II and Schedule III Opioids (OID: 2.16.840.1.113762.1.4.1125.2)
- Medication, Discharge: Benzodiazepines (OID: 2.16.840.1.113762.1.4.1125.1)

To access the value sets for the measure, please visit the Value Set Authority Center, sponsored by the National Library of Medicine, at <https://vsac.nlm.nih.gov/>. A list of value sets for the measure is attached in the Excel workbook provided for question S.2b.

Exclusions

2940 Use of Opioids at High Dosage in Persons Without Cancer

Any member with a diagnosis for Cancer or a Prescription Drug Hierarchical Condition Category (RxHCC) 8, 9, 10, or 11 for Payment Year 2015; or RxHCC 15, 16, 17, 18, or 19 for Payment Year 2016 (see list in S.11 and S.2b); or a hospice indicator (Medicare Part D) from the enrollment database.

2950 Use of Opioids from Multiple Providers in Persons Without Cancer

Any member with a diagnosis for Cancer or a Prescription Drug Hierarchical Condition Category (RxHCC) 8, 9, 10, or 11 for Payment Year 2015; or RxHCC 15, 16, 17, 18, or 19 for Payment Year 2016; (see list in S.11 and S.2b); or a hospice indicator from the enrollment database.

2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer

Any member with a diagnosis for Cancer or a Prescription Drug Hierarchical Condition Category (RxHCC) 8, 9, 10, or 11 for Payment Year 2015; or RxHCC 15, 16, 17, 18, or 19 for Payment Year 2016 (see list in S.11 and S.2b); or a hospice indicator (Medicare Part D) from the enrollment database.

3316e Safe Use of Opioids – Concurrent Prescribing

The following encounters are excluded from the denominator:

- Encounters for patients with an active diagnosis of cancer during the encounter
- Encounters for patients who are ordered for palliative care during the encounter
- Inpatient encounters with length of stay greater than 120 days

Denominator exceptions: None.

Exclusion Details

2940 Use of Opioids at High Dosage in Persons Without Cancer

Hospice exclusion: Exclude those members identified in the Medicare Enrollment Database as being enrolled in hospice.

Cancer exclusion: For Payment Year 2015: RxHCC 8, 9, 10, or 11. For Payment Year 2016: RxHCC 15, 16, 17, 18, or 19

ICD 9 and 10 Codes to Identify Cancer: Please see attachment in S2.b

2950 Use of Opioids from Multiple Providers in Persons Without Cancer

Hospice Exclusion: Exclude those members identified in the Medicare Enrollment Database as being enrolled in hospice.

Cancer Exclusion: For Payment Year 2015: RxHCC 8, 9, 10, or 11. For Payment Year 2016: RxHCC 15, 16, 17, 18, or 19

ICD 9 and 10 Codes to Identify Cancer: Please see attachment in S2.b

2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer

Hospice exclusion: Exclude those members identified in the Medicare Enrollment Database as being enrolled in hospice.

Cancer exclusion: For Payment Year 2015: RxHCC 8, 9, 10, or 11. For Payment Year 2016: RxHCC 15, 16, 17, 18, or 19

ICD 9 and 10 Codes to Identify Cancer: Please see attachment in S2.b

3316e Safe Use of Opioids – Concurrent Prescribing

Active cancer diagnosis or palliative care order during the encounter are represented using the QDM datatype and following value sets:

- Diagnosis: Cancer (2.16.840.1.113883.3.526.3.1010)
- Intervention, Performed: Palliative care (2.16.840.1.113762.1.4.1125.3)
- Intervention, Order: Palliative care (2.16.840.1.113762.1.4.1125.3)

Type Score

2940 Use of Opioids at High Dosage in Persons Without Cancer

Rate/proportion better quality = lower score

2950 Use of Opioids from Multiple Providers in Persons Without Cancer

Rate/proportion better quality = lower score

2951 Use of Opioids from Multiple Providers and at High Dosage in Persons Without Cancer

Rate/proportion better quality = lower score

3316e Safe Use of Opioids – Concurrent Prescribing

Rate/proportion better quality = lower score

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