Quality ID #401: Hepatitis C: Screening for Hepatocellular Carcinoma (HCC) in Patients with Cirrhosis
– National Quality Strategy Domain: Effective Clinical Care
– Meaningful Measure Area: Preventive Care

2022 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of chronic hepatitis C cirrhosis who underwent imaging with either ultrasound, contrast enhanced CT or MRI for hepatocellular carcinoma (HCC) at least once within the 12-month submission period.

INSTRUCTIONS:
This measure is to be submitted a minimum of **once per performance period** for all patients with a diagnosis of chronic hepatitis C cirrhosis seen during the performance period. This measure is intended to reflect the quality of services provided for patients with chronic hepatitis C cirrhosis. This measure may be submitted by Merit-based Incentive Payment System (MIPS) eligible clinicians or other qualified healthcare professionals who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

NOTE: *Patient encounters for this measure conducted via telehealth (e.g., encounters coded with GQ, GT, 95, or POS 02 modifiers) are allowable.*

Measure Submission Type:
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

DENOMINATOR:
All patients aged 18 years and older with a diagnosis of chronic hepatitis C cirrhosis

Denominator Criteria (Eligible Cases):
Patients aged ≥ 18 years on date of encounter
AND
Diagnosis for chronic hepatitis C (ICD-10-CM): B18.2, B19.20, B19.21
AND
Diagnosis for cirrhosis (ICD-10-CM): K70.30, K70.31, K74.60, K74.69
AND
Patient encounter during the performance period (CPT): 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215

NUMERATOR:
Patients who underwent abdominal imaging with either ultrasound, contrast enhanced CT or MRI

Numerator Options:

Performance Met:	Patient underwent abdominal imaging with ultrasound, contrast enhanced CT or contrast MRI for HCC **(G9455)**
OR	
Denominator Exception:	Documentation of medical or patient reason(s) for not ordering or performing screening for HCC. Medical reason: Comorbid medical conditions with expected survival <5 years, hepatic decompensation and not a candidate for liver transplantation, or other medical reasons. Patient reasons: Patient declined or other patient reasons (e.g., cost of tests, time related to accessing testing equipment) **(G9456)**
OR	
Performance Not Met:	Patient did not undergo abdominal imaging and did not have a documented reason for not undergoing abdominal imaging in the submission period **(G9457)**

RATIONALE:

HCC (hepatocellular carcinoma) is the fourth most common cancer in the world and is the fastest rising cause of cancer-related deaths in the United States. HCV is the leading cause of HCC and the risk of developing HCC is highest in patients with established HCV cirrhosis.

Several potentially curative treatments are available for patients with early-stage HCC. These include surgical resection, liver transplantation, and local ablation. Long-term survival of patients who have liver resection or transplantation for HCC can be high (40% to 70% for resection and 52% to 81% for transplant patients after 5 years) (Kansagara 2014).

A recent systematic review of 18 nonrandomized studies found that more screened patients had early-stage HCC than clinically diagnosed patients. More screened patients received potentially curative treatment. However, these studies were limited by their observational nature (including lead time bias) and thus the effect on overall mortality was unclear. There are no randomized controlled trials that evaluated the impact of HCC screening versus no screening on survival in patients with cirrhosis. A randomized trial of HCC screening is not forthcoming because, even in the absence of high quality data, most informed patients and their clinicians consider randomization unethical and prefer surveillance (Poustchi 2011). In a recent modeling based study (that corrected for lead time bias), US based screening for HCC in compensated HCV cirrhosis patients reduced mortality compared to no screening (Mourad 2014).

Collectively, these data suggest that screening has a potential to produce benefits in the highest-risk patients, such as those with HCV cirrhosis who are good candidates for potentially curative treatment (Atkins AIM 2014).

CLINICAL RECOMMENDATION STATEMENTS:

Patients at high risk for developing HCC, including patients with hepatitis C cirrhosis, should be entered into surveillance programs (Level II). Surveillance for HCC should be performed using ultrasonography (Level II). Patients should be screened at 6-month intervals (Level II) (AASLD, 2011).

HCC surveillance must be continued indefinitely in patients with cirrhosis (A1). Patients with cirrhosis should undergo regular surveillance for HCC, irrespective of SVR (B1) (EASL, 2014)

While current guidelines only specify using ultrasound, evidence suggests that using multiple screening methods, including incorporating the alpha fetoprotein biomarker into surveillance plans, may be more effective in identifying early stages of HCC.

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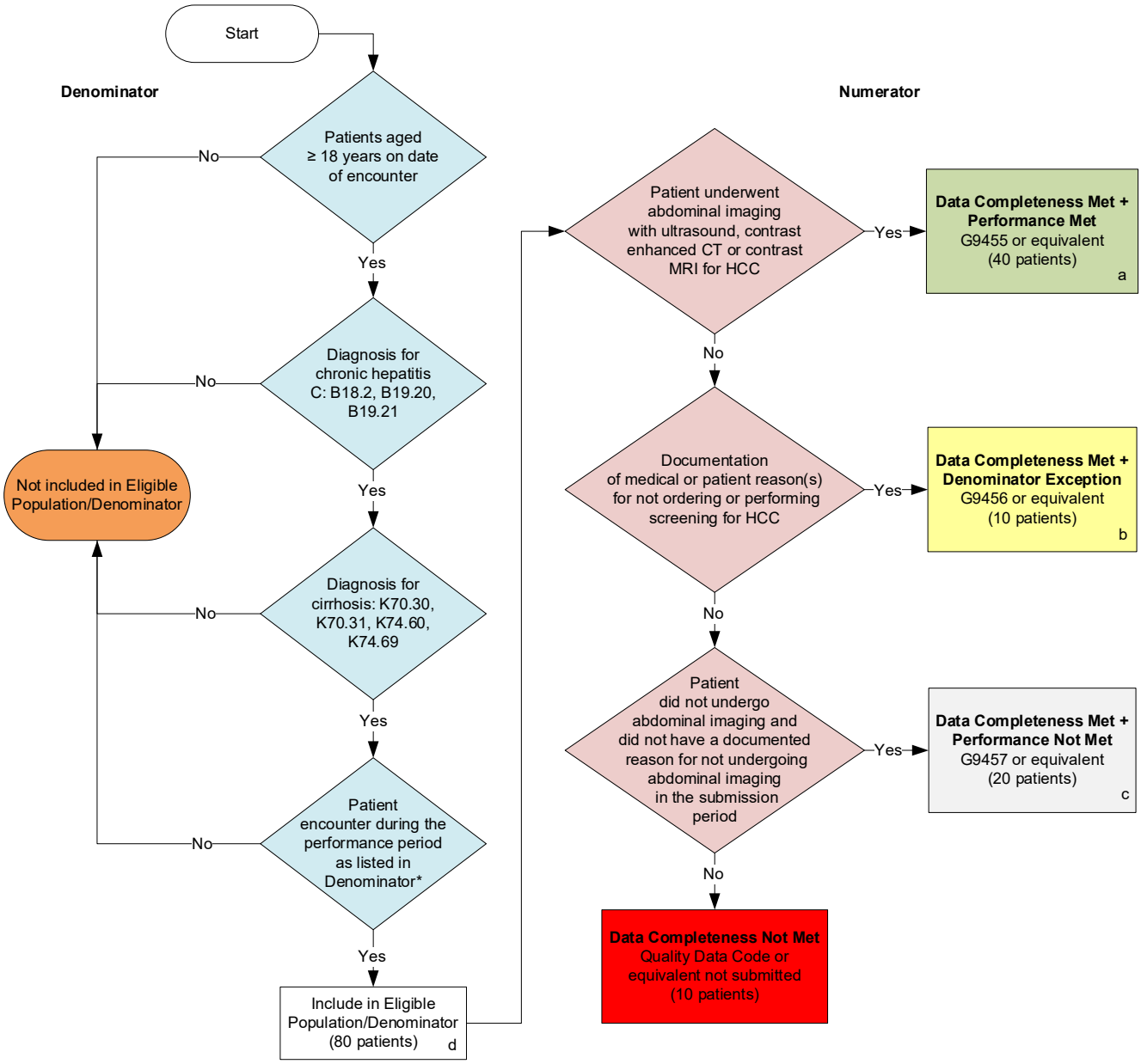
2022 Clinical Quality Measure Flow for Quality ID #401:
Hepatitis C: Screening for Hepatocellular Carcinoma (HCC) in Patients with Cirrhosis

Disclaimer: *Refer to the measure specification for specific coding and instructions to submit this measure.*



SAMPLE CALCULATIONS

Data Completeness=

Performance Met (a=40 patients) + Denominator Exception (b=10 patients) + Performance Not Met (c=20 patients) = 70 patients = **87.50%**

Eligible Population / Denominator (d=80 patients) = 80 patients

Performance Rate=

Performance Met (a=40 patients) = 40 patients = **66.67%**

Data Completeness Numerator (70 patients) - Denominator Exception (b=10 patients) = 60 patients

*See the posted measure specification for specific coding and instructions to submitted this measure.
NOTE: Submission Frequency: Patient-Process

2022 Clinical Quality Measure Flow Narrative for Quality ID #401: Hepatitis C: Screening for Hepatocellular Carcinoma (HCC) in Patients with Cirrhosis

Disclaimer: *Refer to the measure specification for specific coding and instructions to submit this measure.*

1. Start with Denominator
2. Check *Patients aged greater than or equal to 18 years on date of encounter*:
    a. If *Patients aged greater than or equal to 18 years on date of encounter* equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Patients aged greater than or equal to 18 years on date of encounter* equals Yes, proceed to check *Diagnosis for chronic hepatitis C.*
3. Check *Diagnosis for chronic hepatitis C*:
    a. If *Diagnosis for chronic hepatitis C* equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Diagnosis for chronic hepatitis C* equals Yes, proceed to check *Diagnosis for cirrhosis*.
4. Check *Diagnosis for cirrhosis*:
    a. If *Diagnosis for cirrhosis* equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Diagnosis for cirrhosis* equals Yes, proceed to check *Patient encounter during the performance period as listed in Denominator**.
5. Check *Patient encounter during the performance period as listed in Denominator**:
    a. If *Patient encounter during the performance period as listed in Denominator** equals No, do not include in *Eligible Population/Denominator*. Stop processing.
    b. If *Patient encounter during the performance period as listed in Denominator** equals Yes, include in *Eligible Population/Denominator*.
6. Denominator Population:
    a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.
7. Start Numerator
8. Check *Patient underwent abdominal imaging with ultrasound, contrast enhanced CT or contrast MRI for HCC*:
    a. If *Patient underwent abdominal imaging with ultrasound, contrast enhanced CT or contrast MRI for HCC* equals Yes, include in *Data Completeness Met and Performance Met*.
        - *Data Completeness Met and Performance Met* is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 40 patients in Sample Calculation.
    b. If *Patient underwent abdominal imaging with ultrasound, contrast enhanced CT or contrast MRI for*

HCC equals No, proceed to check *Documentation of medical or patient reason(s) for not ordering or performing screening for HCC*.

9. Check *Documentation of medical or patient reason(s) for not ordering or performing screening for HCC*:

    a. If *Documentation of medical or patient reason(s) for not ordering or performing screening for HCC* equals Yes, include in *Data Completeness Met and Denominator Exception*.

        - *Data Completeness Met and Denominator Exception* is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b equals 10 patients in the Sample Calculation.

    b. If *Documentation of medical or patient reason(s) for not ordering or performing screening for HCC* equals No, proceed to check *Patient did not undergo abdominal imaging and did not have a documented reason for not undergoing abdominal imaging in the submission period*.

10. Check *Patient did not undergo abdominal imaging and did not have a documented reason for not undergoing abdominal imaging in the submission period*:

    a. If *Patient did not undergo abdominal imaging and did not have a documented reason for not undergoing abdominal imaging in the submission period* equals Yes, include in *Data Completeness Met and Performance Not Met*.

        - *Data Completeness Met and Performance Not Met* is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 20 patients in the Sample Calculation.

    b. If *Patient did not undergo abdominal imaging and did not have a documented reason for not undergoing abdominal imaging in the submission period* equals No, proceed to check *Data Completeness Not Met*.

11. Check *Data Completeness Not Met*:

        - If *Data Completeness Not Met*, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from the Data Completeness Numerator in the Sample Calculation.

Sample Calculations

Data Completeness equals Performance Met (a equals 40 patients) plus Denominator Exception (b equals 10 patients) plus Performance Not Met (c equals 20 patients) divided by Eligible Population/Denominator (d equals 80 patients). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

Performance Rate equals Performance Met (a equals 40 patients) divided by Data Completeness Numerator (70 patients) minus Denominator Exception (b equals 10 patients). All equals 40 patients divided by 60 patients. All equals 66.67 percent.

*See the posted measure specification for specific coding and instructions to submitted this measure.

NOTE: Submission Frequency: Patient-Process

The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.