



Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to subcriterion 1b).

Brief Measure Information

NQF #: 3059

Corresponding Measures:

De.2. Measure Title: One-Time Screening for Hepatitis C Virus (HCV) for Patients at Risk

Co.1.1. Measure Steward: PCPI

De.3. Brief Description of Measure: Percentage of patients aged 18 years and older with one or more of the following: a history of injection drug use, receipt of a blood transfusion prior to 1992, receiving maintenance hemodialysis, OR birthdate in the years 1945–1965 who received one-time screening for hepatitis C virus (HCV) infection

1b.1. Developer Rationale: Of the estimated 3.5 million people living in the United States with the hepatitis C virus infection (HCV), only 50% have been tested for HCV and are aware of their status. Reported cases of HCV have increased (approximately 20% per year) between 2010–2016 which is partially due to improved case detection and more likely due to rising rates of injection drug use (1,2). Additionally, only one third have been referred for HCV care and only 5.6% receive recommended treatment (3). Studies indicate that even among high-risk patients for whom screening is recommended, only 49–75% are aware of their infection status (4,5,6). In a recent analysis of data from a national health survey, 67.9% of persons ever infected with HCV reported an exposure risk, (e.g., injection drug use, having sexual contact with suspected/confirmed hepatitis C patient), 2 weeks to 6 months prior to symptom onset, and the remaining 32.1% reported no known exposure risk (1). Current risk-based testing strategies have had limited success, as evidenced by the substantial number of HCV-infected persons who remain unaware of their infection. As a result, many do not receive needed care (e.g., education, counseling, and medical monitoring), and are not evaluated for treatment (5). HCV causes acute infection, which can be characterized by mild to severe illness but is usually asymptomatic. In approximately 75%–85% of persons, HCV persists as a chronic infection, placing infected persons at risk for liver cirrhosis, hepatocellular carcinoma (HCC), and extrahepatic complications that develop over the decades following onset of infection (6). HCV testing is the first step toward improving health outcomes for persons infected with HCV.

Citations

1. Centers for Disease Control and Prevention. Surveillance for viral hepatitis the United States, 2016. Available at: <https://www.cdc.gov/hepatitis/statistics/2016surveillance/index.htm>
2. Zibbell JE, Asher AK, Patel RC, Kupronis B, Iqbal K, Ward JW, Holtzman D. Increases in acute hepatitis C related infection related to a growing opioid epidemic and associated injection drug use, 2004–2014. *Amer J Pub Health*. 2018 Feb; 108(2):175–81.
- 3.. Holmberg SD, Spradling PR, Moorman AC, Denniston MM. Hepatitis C in the United States. *N Engl J Med*. 2013; 368:1859–1861. doi: 10.1056/NEJMp1302973
- 4.. Colvin HM, Mitchell AE. Hepatitis and Liver Cancer: A National Strategy for Prevention and Control of Hepatitis B and C. 2010. Available at: <http://www.nap.edu/catalog/12793.html>
5. Coffin PO, Reynolds A. Ending hepatitis C in the United States: the role of screening. *Hepat Med*. 2014;6 79–87.
- 6.. Hagan H, Campbell J, Thiede H, et al. Self-reported hepatitis C virus antibody status and risk behavior in young injectors. *Public Health Rep* 2006;121:710–9.
7. Alter MJ, Margolis HS, Krawczynski K, Judson, FN, Mares A, Alexander WJ, et al. The natural history of community-acquired hepatitis C in the United States. *N Engl J Med* 1992;327:1899–1905

S.4. Numerator Statement: Patients who received one-time screening for HCV infection

S.7. Denominator Statement: All patients aged 18 years and older who were seen twice for any visit or who had at least one preventive visit within the 12 month reporting period with one or more of the following: a history of injection drug use, receipt of a blood transfusion prior to 1992, receiving maintenance hemodialysis, OR birthdate in the years 1945–1965

S.10. Denominator Exclusions: Denominator Exclusions

Patients with a diagnosis of chronic hepatitis C

Denominator Exceptions

Documentation of medical reason(s) for not receiving one-time screening for HCV infection (eg, decompensated cirrhosis indicating advanced disease [ie, ascites, esophageal variceal bleeding, hepatic encephalopathy], hepatocellular carcinoma, waitlist for organ transplant, limited life expectancy, other medical reasons)

Documentation of patient reason(s) for not receiving one-time screening for HCV infection (eg, patient declined, other patient reasons)

De.1. Measure Type: Process

S.23. Data Source: Electronic Health Records

S.26. Level of Analysis: Clinician : Individual

IF Endorsement Maintenance – Original Endorsement Date: Oct 24, 2019 **Most Recent Endorsement Date:**

IF this measure is included in a composite, NQF Composite#/title:

IF this measure is paired/grouped, NQF#/title:

De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results? Not applicable.

1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. **Measures must be judged to meet all subcriteria to pass this criterion and be evaluated against the remaining criteria.**

1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form

[NQF_evidence_attachment_3059e_04162019.docx](#)

1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- disparities in care across population groups.

1b.1. Briefly explain the rationale for this measure (e.g., the benefits or improvements in quality envisioned by use of this measure)

Of the estimated 3.5 million people living in the United States with the hepatitis C virus infection (HCV), only 50% have been tested for HCV and are aware of their status. Reported cases of HCV have increased (approximately 20% per year) between 2010-2016 which is partially due to improved case detection and more likely due to rising rates of injection drug use (1,2). Additionally, only one third have been referred for HCV care and only 5.6% receive recommended treatment (3). Studies indicate that even among high-risk patients for whom screening is recommended, only 49-75% are aware of their infection status (4,5,6). In a recent analysis of data from a national health survey, 67.9% of persons ever infected with HCV reported an exposure risk, (e.g., injection drug use, having sexual contact with suspected/confirmed hepatitis C patient), 2 weeks to 6 months prior to symptom onset, and the remaining 32.1% reported no known exposure risk (1). Current risk-based testing strategies have had limited success, as evidenced by the substantial number of HCV-infected persons who remain unaware of their infection. As a result, many do not receive needed care (e.g., education, counseling, and medical monitoring), and are not evaluated for treatment (5). HCV causes acute infection, which can be characterized by mild to severe illness but is usually asymptomatic. In approximately 75%-85% of persons, HCV persists as a chronic infection, placing infected persons at risk for liver cirrhosis, hepatocellular carcinoma (HCC), and extrahepatic complications that develop over the decades following onset of infection (6). HCV testing is the first step toward improving health

outcomes for persons infected with HCV.

Citations

1. Centers for Disease Control and Prevention. Surveillance for viral hepatitis the United States, 2016. Available at: <https://www.cdc.gov/hepatitis/statistics/2016surveillance/index.htm>
2. Zibbell JE, Asher AK, Patel RC, Kupronis B, Iqbal K, Ward JW, Holtzman D. Increases in acute hepatitis C related infection related to a growing opioid epidemic and associated injection drug use, 2004-2014. *Amer J Pub Health*. 2018 Feb; 108(2):175-81.
- 3.. Holmberg SD, Spradling PR, Moorman AC, Denniston MM. Hepatitis C in the United States. *N Engl J Med*. 2013; 368:1859-1861. doi: 10.1056/NEJMp1302973
- 4.. Colvin HM, Mitchell AE. Hepatitis and Liver Cancer: A National Strategy for Prevention and Control of Hepatitis B and C. 2010. Available at: <http://www.nap.edu/catalog/12793.html>
5. Coffin PO, Reynolds A. Ending hepatitis C in the United States: the role of screening. *Hepat Med*. 2014;6 79–87.
- 6.. Hagan H, Campbell J, Thiede H, et al. Self-reported hepatitis C virus antibody status and risk behavior in young injectors. *Public Health Rep* 2006;121:710–9.
7. Alter MJ, Margolis HS, Krawczynski K, Judson, FN, Mares A, Alexander WJ, et al. The natural history of community-acquired hepatitis C in the United States. *N Engl J Med* 1992;327:1899–1905

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. *(This is required for endorsement maintenance. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included). This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.*

Although not a requirement for initial endorsement, we have provided the following performance results from EHR measure 3059e to illustrate the current state of performance. There is no historical EHR data available at this time.

Data 1

The data source is Cerner EHR data from a large non-profit health system with 23 hospitals, over 185 clinics, and over 2,000 providers with more than 130,000 admissions and 400,000 outpatient community care visits annually. The data are for the time period January 2017 through December 2017. There were 113,303 patients included in this reliability testing and analysis. These were the patients that were associated with providers who had 10 or more patients eligible for this measure. Based on the sample of 827 included providers, the mean performance rate is 0.20, the median performance rate is 0.17 and the mode is 0.14. The standard deviation is 0.13. The range of the performance rate is 0.98, with a minimum rate of 0.02 and a maximum rate of 1.0. The interquartile range is 0.14 (0.25–0.11). Decile, Performance (1, 0.08; 2, 0.10; 3, 0.12; 4, 0.15; 5, 0.17; 6, 0.2; 7, 0.23; 8, 0.28; 9, 0.37; 10, 1.0).

Data 2

The data are for the time period January 2018 through December 2018. The data source is from a physician practice using the gGastro EHR. There were 24,520 patients included in this reliability testing and analysis. These were the patients that were associated with providers who had 10 or more patients eligible for this measure. Based on the sample of 180 included providers, the mean performance rate is 0.34, the median performance rate is 0.25 and the mode is 0.09. The standard deviation is 0.26. The range of the performance rate is 1.4, with a minimum rate of 0.01 and a maximum rate of 1.0. The interquartile range is 0.31 (0.46–0.15). Decile, Performance (1, 0.08; 2, 0.13; 3, 0.18; 4, 0.23; 5, 0.25; 6, 0.31; 7, 0.4; 8, 0.52; 9, 0.78; 10, 1.0).

1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.

Data from the National Health and Nutrition Examination Survey (NHANES) indicates that less than 50% of individuals living with HCV are currently aware of their status (1). In addition, data from the CDC shows that a majority of patients (67.5%), reported an exposure risk at least 2 weeks to 6 months prior to symptom onset (2). Estimates from the NHANES indicate that approximately 45%-85% of individuals with chronic HCV infection are undiagnosed (3). A study at a large integrated health system found that

among 444,594 patients that were seen between January 1, 2003 to August 1, 2012, 15.8% were screened for HCV (4). Of note in this study, higher risk groups were found to be screened more frequently, however rates are still suboptimal (4). A more recent study that focused on HCV screening at community health centers found that out of 60,772 eligible patients seen January 1, 2010, to December 31, 2013 8.3% had an HCV infection screen, as determined by presence of the HCV screen coded in the EHR (5). An evaluation of commercially insured patients between 2005-2014 showed that while rates of screening increased over time, rates remain overall low. Specifically, for those born between 1945-1965 screening rates increased from 1.71% in 2011 to 3.26% in 2014 (6).

Citations

1. Holmberg SD, Spradling PR, Moorman AC, Denniston MM. Hepatitis C in the United States. *N Engl J Med*. 2013; 368:1859-1861. doi: 10.1056/NEJMp1302973
2. Centers for Disease Control and Prevention. Surveillance for viral hepatitis the United States, 2016. Available at: <https://www.cdc.gov/hepatitis/statistics/2016surveillance/index.htm>
3. Dita I, Dita F, Devaki P, et al. The changing epidemiology of hepatitis C virus infection in the United States: National health and nutrition examination survey 2001-2010. *J Hepatol*. 2014;60:691-698.
4. Linas BP, Hu H, Barter DM, Horberg M. Hepatitis C screening trends in a large integrated health system. *The American Journal of Medicine*. 2014. 127(5):398-405.
5. Cook N, Turse EP, Garcia AS, Hardigan P, Amofah SA. Hepatitis C virus infection screening within community health centers. *J Am Osteopath Assoc*. 2016 Jan;116(1):6-11. doi: 10.7556/jaoa.2016.001.
6. Isenhour CJ, Hariri SH, Hales CM, Vellozzi CJ. Hepatitis C antibody testing in a commercially insured population, 2005-2014. *Am J Prev Med*. 2017 May;52(5):625-631. doi: 10.1016/j.amepre.2016.12.016. Epub 2017 Feb 1.

1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability. *(This is required for endorsement maintenance. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.*
No disparities data is available for the measure, at this time.

1b.5. If no or limited data on disparities from the measure as specified is reported in 1b4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations.

Overall, HCV risk-based screening strategies have at limited success as evidenced by the anywhere from 45-85% of people living with HCV being unaware of their infection. There are not only barriers to patients recalling risk behaviors, but also barriers with providers not being aware of the guidelines that support these screening strategies (7). Although the continued prevalence of HCV is problematic in communities across America, inequalities in disease prevalence, treatment, and outcomes make it a particularly important minority health issue. According to the CDC, American Indians and Alaska natives have the highest incidence of acute HCV cases and in 2016 had the highest rate of mortality from HCV when compared to other populations (1) While African Americans make up 12% of the U.S. population, they account for over 22% of chronic HCV cases (2). Additionally, African Americans diagnosed with HCV infection often have less desirable outcomes compared to white patients (3). In addition, chronic liver disease, often related to HCV infection, is a leading cause of death among African Americans aged 45-64 (2). A recent study in a large integrated healthcare system found that out of 40,561 patients eligible to be screened for HCV, 8657 patients (21.3%) were screened the using HCV antibody test and of these 109 (1.3%) tested positive (8). This study also found that African Americans were more likely to be screened than Caucasians and men were more likely to be screened than women (8). The "baby boomer" generation, or those born between 1945-1965, are six times more likely to have HCV infection than any other adult age group with an HCV prevalence of 3.25% (4). Other disparate groups include injection drug users. The most recent national surveys of injection drug users found that approximately one third of young drug users (aged 18-30 years) are HCV infected. Additionally, older and former injection drug users have a more common prevalence of HCV infection (70%-90%), primarily because of needle sharing during the 1970s and 1980s (5). Recent statewide surveillance data shows that HCV infections have increased to an epidemic level in the central Appalachian region (Kentucky, Tennessee, Virginia and West Virginia), in individuals under the age of 30 primarily due to injection opioid use (6).

Citations

1. Centers for Disease Control and Prevention. Surveillance for viral hepatitis the United States, 2016. Available at: <https://www.cdc.gov/hepatitis/statistics/2016surveillance/index.htm>
2. US Department of Health and Human Services. 2014-2016 Action Plan for the Prevention, Care, & Treatment of Viral Hepatitis. 2015. Available at: <http://www.cdc.gov/hepatitis/HHS-ActionPlan.htm>
- 3.. Webb BC. The “Secret” epidemic: Disparities in Hepatitis C Incidence, Treatment, and Outcomes. Prepared for the Joint Center for Political and Economic Studies. October 2010.
4. Denniston MM, Jiles RB, Drobeniuc J, et al. Chronic hepatitis C virus infection in the United States, National Health and Nutrition Examination Survey 2003 to 2010. *Ann Intern Med*. 2014 Mar 4;160(5):293-300. doi: 10.7326/M13-1133.
- 5.. Centers for Disease Control and Prevention. Hepatitis C FAQs for Health Professionals. <http://www.cdc.gov/hepatitis/hcv/hcvfaq.htm#section1> Updated May 23, 2016. Accessed June 10, 2016.
- 6.. Centers for Disease Control and Prevention. Increases in hepatitis C virus infection related to injection drug use among persons aged ≥30 years - Kentucky, Tennessee, Virginia, and West Virginia, 2006–2012. *MMWR*. 2015;64(17):453-458.
7. Centers for Disease Control and Prevention. Recommendations for the Identification of Chronic Hepatitis C Virus Infection Among Persons Born During 1945-1965. *MMWR* 2012;61(No. RR-4):1-34.
8. Bourgi K, Brar I, Baker-Genaw K. Health disparities in hepatitis C screening and linkage to care in an integrated health system in southeast Michigan. *PLOS One*. Published: August 15, 2016 <https://doi.org/10.1371/journal.pone.0161241>.

1c. High Priority (previously referred to as High Impact)

The measure addresses:

- a specific national health goal/priority identified by DHHS or the National Priorities Partnership convened by NQF; OR
- a demonstrated high-priority (high-impact) aspect of healthcare (e.g., affects large numbers of patients and/or has a substantial impact for a smaller population; leading cause of morbidity/mortality; high resource use (current and/or future); severity of illness; and severity of patient/societal consequences of poor quality).

1c.1. Demonstrated high priority aspect of healthcare

Patient/societal consequences of poor quality, Severity of illness

1c.2. If Other:

1c.3. Provide epidemiologic or resource use data that demonstrates the measure addresses a high priority aspect of healthcare.

List citations in 1c.4.

HCV is the most common chronic bloodborne infection in the United States (1). In the United States, an estimated 2.7 -3.6 million (1.0%-1.5%) persons in the general, non-institutionalized population are living with hepatitis C virus (HCV) infection (2). Approximately 800,000 incarcerated, institutionalized, and homeless people are also infected with HCV (3). An estimated 41,200 persons were newly infected in 2016 (2). It is estimated that the average screening test for HCV costs between \$45-\$80 for uninsured individuals and less for those who are covered by insurance (4). Several analyses suggest that HCV testing is cost-effective and a reasonable strategy to identify asymptomatic cases, particularly in populations with a high prevalence of HCV. Rein and colleagues evaluated the cost-effectiveness of HCV screening in the primary care setting for the cohort born from 1945-1965. It was predicted that compared to the status quo, cohort screening would identify an additional 808,580 cases of HCV infection and prevent 82,000 HCV-related deaths. The cost per new case identified is \$2,874 and \$15,700 quality adjusted life years (QALY), assuming that the standard treatment of care is provided and \$35,700 per QALY saved, assuming newer forms of treatment, including direct-acting antivirals, are used (5). Eckman and colleagues examined the cost-effectiveness of HCV screening and found that when used in populations with a prevalence of over .84%, it is cost-effective, particularly in populations with a higher prevalence of the infection (6). Additional studies have confirmed the cost-effectiveness of HCV testing linked to care and treatment (7). Given the current treatments available, it should be noted that 90% of cases can be cured, if identified (2).

1c.4. Citations for data demonstrating high priority provided in 1a.3

1. Centers for Disease Control and Prevention. Viral Hepatitis - Hepatitis C Information. <http://www.cdc.gov/hepatitis/HCV/index.htm> Updated May 31, 2015. Accessed February 20, 2019.
2. Centers for Disease Control and Prevention. Surveillance for viral hepatitis the United States, 2016. Available at: <https://www.cdc.gov/hepatitis/statistics/2016surveillance/index.htm>
3. Edlin BR, Eckhardt BJ, Shu MA, et al. Toward a more accurate estimate of the prevalence of hepatitis C in the United States. *Hepatology*. 2015;62(5):1353-63.
4. Joshi SN. Hepatitis C screening. *Ochsner J*. 2014;14:664-668.
5. Rein DB, Smith BD, Wittenborn JS, et al. The cost-effectiveness of birth-cohort screening for hepatitis C antibody in U.S. primary care settings. *Ann Intern Med*. 2012;156(4):263-271.
6. Eckman MH, Talal AH, Gordon SC, et al. Cost-effectiveness of screening for chronic hepatitis C infection in the United States. *Clin Infect Dis*. 2013;56:1382-1393.
7. Rein DB, Wittenborn JS, Smith BD, Liffmann DK, Ward JW. The cost-effectiveness, health benefits, and financial costs of new antiviral treatments for hepatitis C virus. *Clin Infect Dis*. 201;61(2):157-68. doi: 10.1093/cid/civ220.

1c.5. If a PRO-PM (e.g. HRQoL/functional status, symptom/burden, experience with care, health-related behaviors), provide evidence that the target population values the measured PRO and finds it meaningful. (Describe how and from whom their input was obtained.)

Not applicable. Not a PRO-PM.

2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. ***Measures must be judged to meet the subcriteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.***

2a.1. Specifications The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

De.5. Subject/Topic Area (check all the areas that apply):

Infectious Diseases (ID), Liver : Viral Hepatitis

De.6. Non-Condition Specific (check all the areas that apply):

Disparities Sensitive, Screening

S.1. Measure-specific Web Page (Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)

The measure specifications are included with this form. Additional measure details may be found at <http://www.thepcpi.org/?page=PCPIMeasures>

S.2a. If this is an eMeasure, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)

This is an eMeasure Attachment: [OnetimeHCVscreenhighrisk_v5_6_Artifacts.zip](#)

S.2b. Data Dictionary, Code Table, or Value Sets (and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)

Attachment **Attachment:** HCVOnetimeScreenAtRisk_ValueSets_12182018-636876596793706335.xlsx

S.3. For endorsement maintenance, please briefly describe any changes to the measure specifications since last endorsement date and explain the reasons.

Supporting guidelines and coding value sets included in the measure are reviewed on an annual basis. This annual review has resulted in minor changes to the value sets, to account for updates to the coding terminologies for existing data elements. Measure specifications are annually updated to align with any changes to the standards or tools used to support electronic measurement.

S.4. Numerator Statement (Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome)

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.

Patients who received one-time screening for HCV infection

S.5. Time Period for Data (What is the time period in which data will be aggregated for the measure, e.g., 12 mo, 3 years, look back to August for flu vaccination? Note if there are different time periods for the numerator and denominator.)

Time Period for Data Collection: the numerator quality action could happen any time before the end of the measurement period

S.6. Numerator Details (All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.

NUMERATOR DEFINITION:

Screening for HCV Infection includes current or prior receipt of:

- 1) HCV antibody test
- 2) HCV RNA test
- 3) Recombinant immunoblot assay (RIBA) test (if performed at any time in the past)

NUMERATOR GUIDANCE:

This measure evaluates the proportion of at-risk patients who have received a one-time screening for Hepatitis C Virus (HCV). In order to meet the measure, the reporting provider must have the laboratory test result present in the patient's medical record. On occasion, providers will view HCV screening results that were performed elsewhere and therefore the results are not present in the EHR in a structured format. To allow such tests to be applied to this measure, they should be entered into the EHR as a laboratory test in a manner consistent with the EHR in use. If the specific LOINC code of the test is not known, the entry should use the more generic LOINC Panel code which is included in the HCV test value sets as outlined below:

If the provider does not know the exact HCV RNA test performed elsewhere, report the generic LOINC HCV RNA Panel code 75888-8, found in the value set titled, "HCV RNA Test".

If the provider does not know the exact HCV Antibody test performed elsewhere, report the generic LOINC HCV Ab Panel code, 75886-2, found in the value set titled, "HCV Antibody Test".

If the provider does not know the exact HCV RIBA test performed elsewhere, report the generic LOINC HCV RIBA Panel code, 75887-0, found in the value set, "HCV RIBA Test".

The following screening tests are included as allowable screening tests for HCV: HCV antibody test, HCV RNA test or RIBA test. The RIBA test qualifies as "one-time screening" if it was performed at some time in the past. Because RIBA is not a screening method currently used in clinical practice, it is not included as an option in the numerator logic for a screening that occurred during the measurement period.

HQMF eCQM developed and is attached to this submission in fields S.2a and S.2b.

S.7. Denominator Statement (Brief, narrative description of the target population being measured)

All patients aged 18 years and older who were seen twice for any visit or who had at least one preventive visit within the 12 month

reporting period with one or more of the following: a history of injection drug use, receipt of a blood transfusion prior to 1992, receiving maintenance hemodialysis, OR birthdate in the years 1945–1965

S.8. Target Population Category (Check all the populations for which the measure is specified and tested if any):

S.9. Denominator Details (All information required to identify and calculate the target population/denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

Time Period for Data Collection: 12 consecutive months

DENOMINATOR GUIDANCE

The start datetime stamp associated with the data element "Diagnosis: History of Blood Transfusion" should be the datetime of the transfusion event, and not a datetime stamp associated with the documentation action in order to satisfy the logic clause.

HQMF eQIM developed and is attached to this submission in fields S.2a and S.2b.

S.10. Denominator Exclusions (Brief narrative description of exclusions from the target population)

Denominator Exclusions

Patients with a diagnosis of chronic hepatitis C

Denominator Exceptions

Documentation of medical reason(s) for not receiving one-time screening for HCV infection (eg, decompensated cirrhosis indicating advanced disease [ie, ascites, esophageal variceal bleeding, hepatic encephalopathy], hepatocellular carcinoma, waitlist for organ transplant, limited life expectancy, other medical reasons)

Documentation of patient reason(s) for not receiving one-time screening for HCV infection (eg, patient declined, other patient reasons)

S.11. Denominator Exclusion Details (All information required to identify and calculate exclusions from the denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

Time Period for Data Collection: During the measurement period

The PCPI distinguishes between measure exceptions and measure exclusions. Exclusions arise when the intervention required by the numerator is not appropriate for a group of patients who are otherwise included in the initial patient or eligible population of a measure (ie, the denominator). Exclusions are absolute and are to be removed from the denominator of a measure and therefore clinical judgment does not enter the decision. For measure One-Time Screening for Hepatitis C Virus (HCV) for Patients at Risk, exclusions include Patients with a diagnosis of chronic hepatitis C. Exclusions, including applicable value sets, are included in the measure specifications.

Measure Exceptions

Exceptions are used to remove a patient from the denominator of a performance measure when the patient does not receive a therapy or service AND that therapy or service would not be appropriate due to patient-specific reasons. The patient would otherwise meet the denominator criteria. Exceptions are not absolute, and are based on clinical judgment, individual patient characteristics, or patient preferences. The PCPI exception methodology uses three categories of exception reasons for which a patient may be removed from the denominator of an individual measure. These measure exception categories are not uniformly relevant across all measures; for each measure, there must be a clear rationale to permit an exception for a medical, patient, or system reason. Examples are provided in the measure exception language of instances that may constitute an exception and are intended to serve as a guide to clinicians. For measure One-Time Screening for Hepatitis C Virus (HCV) for Patients at Risk, exceptions may include documentation of medical reason(s) for not receiving one-time screening for HCV infection, (eg, decompensated cirrhosis indicating advanced disease [ie, ascites, esophageal variceal bleeding, hepatic encephalopathy], hepatocellular carcinoma, waitlist for organ transplant, limited life expectancy, other medical reasons), or patient reason(s) (eg, patient declined, other patient reasons). Where examples of exceptions are included in the measure language, value sets for these examples are developed and are included in the eQIM. Although this methodology does not require the external reporting of more

detailed exception data, the PCPI recommends that physicians document the specific reasons for exception in patients' medical records for purposes of optimal patient management and audit-readiness. The PCPI also advocates the systematic review and analysis of each physician's exceptions data to identify practice patterns and opportunities for quality improvement.

HQMF eCQM developed and is attached to this submission in fields S.2a and S.2b.

S.12. Stratification Details/Variables *(All information required to stratify the measure results including the stratification variables, definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b)*

Consistent with CMS' Measures Management System Blueprint and recent national recommendations put forth by the IOM and NQF to standardize the collection of race and ethnicity data, we encourage the results of this measure to be stratified by race, ethnicity, administrative sex, and payer and have included these variables as recommended data elements to be collected.

S.13. Risk Adjustment Type (Select type. Provide specifications for risk stratification in S.12 and for statistical model in S.14-15)

No risk adjustment or risk stratification

If other:

S.14. Identify the statistical risk model method and variables *(Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development and testing should be addressed with measure testing under Scientific Acceptability)*

No risk adjustment or risk stratification.

S.15. Detailed risk model specifications *(must be in attached data dictionary/code list Excel or csv file. Also indicate if available at measure-specific URL identified in S.1.)*

Note: Risk model details (including coefficients, equations, codes with descriptors, definitions), should be provided on a separate worksheet in the suggested format in the Excel or csv file with data dictionary/code lists at S.2b.

S.15a. Detailed risk model specifications *(if not provided in excel or csv file at S.2b)*

S.16. Type of score:

Rate/proportion

If other:

S.17. Interpretation of Score *(Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)*

Better quality = Higher score

S.18. Calculation Algorithm/Measure Logic *(Describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; aggregating data; risk adjustment; etc.)*

To calculate performance rates:

1. Find the patients who meet the initial population (ie, the general group of patients that a set of performance measures is designed to address).
2. From the patients within the initial population criteria, find the patients who qualify for the denominator (ie, the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial population and denominator are identical.
3. Find the patients who qualify for denominator exclusions and subtract from the denominator.
4. From the patients within the denominator (after denominator exclusions have been subtracted from the denominator), find the patients who meet the numerator criteria (ie, the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator.

5. From the patients who did not meet the numerator criteria, determine if the provider has documented that the patient meets any criteria for exception when denominator exceptions have been specified [for this measure: medical reason(s) (eg, decompensated cirrhosis indicating advanced disease [ie, ascites, esophageal variceal bleeding, hepatic encephalopathy], hepatocellular carcinoma, waitlist for organ transplant, limited life expectancy, other medical reasons) or patient reason(s) (eg, patient declined, other patient reasons) for the patient not receiving one-time screening for HCV infection]]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. --Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (ie, percentage of patients with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure.

S.19. Calculation Algorithm/Measure Logic Diagram URL or Attachment (You also may provide a diagram of the Calculation Algorithm/Measure Logic described above at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

No diagram provided

S.20. Sampling (If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)

IF a PRO-PM, identify whether (and how) proxy responses are allowed.

Not applicable. The measure is not based on a sample.

S.21. Survey/Patient-reported data (If measure is based on a survey, provide instructions for conducting the survey and guidance on minimum response rate.)

IF a PRO-PM, specify calculation of response rates to be reported with performance measure results.

Not applicable. The measure is not based on a survey.

S.22. Missing data (specify how missing data are handled, e.g., imputation, delete case.)

Required for Composites and PRO-PMs.

Patient eligibility is determined by a set of defined criteria relevant to a particular measure. If data required to determine patient eligibility are missing, those patients/cases would be ineligible for inclusion in the denominator and therefore the patient/case would be deleted.

If data required to determine if a denominator eligible patient qualifies for the numerator (or has a valid exclusion/exception) are missing, this case would represent a quality failure.

S.23. Data Source (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.24.

Electronic Health Records

S.24. Data Source or Collection Instrument (Identify the specific data source/data collection instrument e.g. name of database, clinical registry, collection instrument, etc.)

IF a PRO-PM, identify the specific PROM(s); and standard methods, modes, and languages of administration.

Not applicable.

S.25. Data Source or Collection Instrument (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

No data collection instrument provided

S.26. Level of Analysis (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

Clinician : Individual

S.27. Care Setting (Check ONLY the settings for which the measure is SPECIFIED AND TESTED)

Home Care, Inpatient/Hospital, Other, Outpatient Services

If other: Domiciliary

S.28. COMPOSITE Performance Measure - Additional Specifications *(Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)*

Not applicable. The measure is not a composite.

2a. Reliability – See attached Measure Testing Submission Form

2b. Validity – See attached Measure Testing Submission Form

[3059e_nqf_testing-attachment_7.1_-_Final_04162019-636918014001714521.docx](#)

3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

3a. Byproduct of Care Processes

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

3a.1. Data Elements Generated as Byproduct of Care Processes.

Generated or collected by and used by healthcare personnel during the provision of care (e.g., blood pressure, lab value, diagnosis, depression score)

If other:

3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

3b.1. To what extent are the specified data elements available electronically in defined fields? *(i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields)*

[ALL data elements are in defined fields in a combination of electronic sources](#)

3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources.

3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL.

[Attachment Attachment: 3059e_Feasibility_Attachment_-_One_time_Screening.pdf](#)

3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

3c.1. Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.

IF a PRO-PM, consider implications for both individuals providing PROM data (patients, service recipients, respondents) and those whose performance is being measured.

[We have not identified any areas of concern or made any modifications as a result of testing of the measure in relation to data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, and other feasibility issues unless otherwise noted.](#)

3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified *(e.g., value/code set, risk model, programming code, algorithm).*

[The Measures, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, eg, use by](#)

health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measures for commercial gain, or incorporation of the Measures into a product or service that is sold, licensed or distributed for commercial gain.

Commercial uses of the Measures require a license agreement between the user and the PCPI® Foundation (PCPI®) or the American Medical Association (AMA). Neither the American Medical Association (AMA), nor the former AMA-convened Physician Consortium for Performance Improvement® (AMA-PCPI), nor PCPI, nor their members shall be responsible for any use of the Measures.

4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

4.1. Current and Planned Use

NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.

Planned	Current Use (for current use provide URL)
Public Reporting	
Payment Program	
Not in use	

4a.1. For each CURRENT use, checked above, provide:

- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included

4a.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons? (e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?)

The measure was included on the Measures Under Consideration (MUC) list as an eMeasure. While the measure was chosen by CMS for inclusion in PQRS 2016 and then rolled into the MIPS program, CMS chose to implement it as a registry measure. PCPI plans to resubmit this measure to the MUC list as an eMeasure with the hopes of it being implemented as such.

The PCPI strongly encourages the use of its measures in quality improvement and accountability initiatives and promotes their use in public reporting programs. Measures developed by the PCPI, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. As a measure developer, we work with measure implementers as opportunities arise to encourage and facilitate the integration of PCPI measures in their programs.

4a.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement. (Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data

aggregation and reporting.)

The measure is a part of the Core Quality Measure Collaborative. The Collaborative intends to promote alignment and harmonization of measures across payers in the public and private sectors through core measure sets. CMS intends to include the core sets in proposed rules, where appropriate. Private payers will use a phased in approach to implementation of the core measure sets and may use them for negotiations between physicians and private payers. Other plans for implementation include regional and local quality improvement efforts using the core measure sets. The CQMC has reconvened in 2019 and we are continuing to participate in the process to become informed on the status of implementation of the core sets of measures. Please visit <https://www.qualityforum.org/cqmc/> for additional information.

4b. Improvement

Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4b.1. Progress on Improvement. (Not required for initial endorsement unless available.)

Performance results on this measure (current and over time) should be provided in 1b.2 and 1b.4. Discuss:

- Progress (trends in performance results, number and percentage of people receiving high-quality healthcare)
- Geographic area and number and percentage of accountable entities and patients included

No performance scores are available for the measure, at this time

4b.2. If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

Because a majority of individuals who are at-risk for HCV are not aware of their infection status, the implementation of this measure would lead to more individuals becoming aware of their infection status. Those who screen positive for HCV could seek access to follow-up care and treatment thereby improving their HCV-related outcomes.

4c. Unintended Consequences

The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

4c.1. Were any unintended negative consequences to individuals or populations identified during testing; OR has evidence of unintended negative consequences to individuals or populations been reported since implementation? If so, identify the negative unintended consequences and describe how benefits outweigh them or actions taken to mitigate them.

We are not aware of any unintended consequences at this time, but we take unintended consequences very seriously and therefore continuously monitor to identify actions that can be taken to mitigate them.

5. Comparison to Related or Competing Measures

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure.

5. Relation to Other NQF-endorsed Measures

Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.

No

5.1a. List of related or competing measures (selected from NQF-endorsed measures)

5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.

5a. Harmonization

The measure specifications are harmonized with related measures;

OR

The differences in specifications are justified

5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):

Are the measure specifications completely harmonized?

5a.2. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.

5b. Competing Measures

The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);

OR

Multiple measures are justified.

5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):

Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)

Appendix

A.1 Supplemental materials may be provided in an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.

No appendix Attachment:

Contact Information

Co.1 Measure Steward (Intellectual Property Owner): PCPI

Co.2 Point of Contact: PCPI, Measures, PCPImeasures@thepcpi.org, 312-224-6070-

Co.3 Measure Developer if different from Measure Steward: PCPI

Co.4 Point of Contact: Kerri, Fei, kerri.fei@thepcpi.org, 312-224-6070-

Additional Information

Ad.1 Workgroup/Expert Panel involved in measure development

Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

PCPI measures are developed through cross-specialty, multi-disciplinary work groups. All medical specialties and other health care professional disciplines participating in patient care for the clinical condition or topic under study are invited to participate as equal contributors to the measure development process. In addition, the PCPI strives to include on its work groups individuals representing the perspectives of patients, consumers, private health plans, and employers. This broad-based approach to measure development ensures buy-in on the measures from all stakeholders and minimizes bias toward any individual specialty or stakeholder group. All work groups have at least two co-chairs who have relevant clinical and/or measure development expertise and who are responsible for ensuring that consensus is achieved and that all perspectives are voiced.

Work Group members:

John W. Ward, MD (Co-chair) (internal medicine)

John B. Wong, MD (Co-chair) (gastroenterology, hepatology, methodology)

Joel V. Brill, MD, AGAF, CHQM (gastroenterology)

Roger Chou, MD (internal medicine, guideline experience)
 Richard H. Davis, Jr., PA-C (physician assistant)
 Yngve Falck-Ytter, MD, AGAF (gastroenterology/liver/hepatology)
 Troy Fiesinger, MD, FAFP (family medicine)
 Marc G. Ghany, MD, MHSc (guideline experience/hepatology)
 Marwan Haddad MD, MPH, AAHIVS (HIV/HCV, community health center)
 Arthur Yu-shin Kim, MD (Infectious Diseases, HIV/HCV co-infection)
 Pritha Kuchaculla (American Liver Foundation, patient advocacy)
 Daniel B. Raymond (consumer/patient advocacy group)
 Paola Ricci, MD (hepatology/gastroenterology)
 Martha Shea, BSN, RN (American Liver Foundation, patient advocacy)
 Jessica A. Shepherd, MD, MBA (OB/GYN)
 Margaret C. Shuhart, MD, MS (hepatology/gastroenterology)
 Amy Hirsch Shumaker, PharmD, BCPS (pharmacy, hepatology, infectious diseases)
 Aynsley D. Smith, CNP, MPH (hepatology nurse practitioner)
 Chris Taylor (patient advocacy/public health)
 Glenn Treisman, MD, PhD (HIV and HCV psychiatrist)
 Weifeng Weng, PhD (health services researcher/ABIM PIM development)
 John Yao, MD, MPH, MBA, MPA, FACP (health plan representative)

Measure Developer/Steward Updates and Ongoing Maintenance

Ad.2 Year the measure was first released: 2013

Ad.3 Month and Year of most recent revision: 2018

Ad.4 What is your frequency for review/update of this measure? Supporting guidelines, specifications and coding for this measure are reviewed annually.

Ad.5 When is the next scheduled review/update for this measure? 2019

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AMA and PCPI encourage use of the Measure by other health care professionals, where appropriate.

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Ad.8 Additional Information/Comments:

