

Hepatitis C Virus (HCV): Sustained Virological Response (SVR)

Based on Systematic Review: Comparative effectiveness of antiviral treatment for hepatitis C virus infection in adults

DESCRIPTION:

Percentage of patients aged 18 years and older with a diagnosis of chronic hepatitis C (HCV) with undetectable HCV ribonucleic acid (RNA) as evidenced by an initial positive quantitative HCV RNA test followed by repeat labs with negative quantitative HCV RNA at least 20 weeks after last lab with a positive RNA. (20 weeks is intended to capture the minimum duration of therapy with the necessary time to wait to test for SVR).

INSTRUCTIONS:

This measure is to be reported a minimum of **once per reporting period** for all patients with a diagnosis of chronic hepatitis C seen during the reporting period with undetectable HCV ribonucleic acid (RNA). This measure is intended to reflect the quality of services provided for patients with chronic hepatitis C who are undergoing evaluation for antiviral treatment. This measure may be reported by clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Reporting via Claims and MIPS CQM:

ICD-10-CM diagnosis codes, CPT codes, and patient demographics are used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes need to be submitted for claims and may be submitted as MIPS CQMs that utilize claims data.

DENOMINATOR:

All patients aged 18 years and older with a diagnosis of chronic hepatitis C who had an initial positive RNA test within the measurement period.

Denominator Criteria (Eligible Cases):

All patients aged 18 years and older

AND

Diagnosis for chronic hepatitis C (ICD-10-CM): B18.2, B19.20, B19.21

AND

Patient encounter during the reporting period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215

WITH

Hepatitis C Virus (HCV), Quantitative, RNA (CPT): 87522

NUMERATOR:

Patients with undetectable HCV RNA at least 20 weeks after last lab with positive RNA (GXXXX)

Numerator Options:

Performance Met: Documented initial positive HCV quantitative RNA testing followed by repeat labs with

negative HCV quantitative RNA testing at least 20 weeks after last lab with a positive RNA (GXXXX)

OR

Other Performance Exclusion: Initial and repeat labs not performed after the initiation of HCV treatment for reasons documented by clinician (e.g., patients whose treatment was discontinued, not covered by insurance, other medical reasons, patient declined, other patient reasons) (CPT): 87522

OR

Performance Not Met: Initial or repeat HCV quantitative RNA testing **not** documented as performed (GXXXX)

RATIONALE:

Achieving SVR is the first step toward reducing future HCV morbidity and mortality. Once achieved, SVR is associated with long-term clearance of HCV infection, which is regarded as a virologic “cure,” as well as with improved morbidity and mortality. Patients who achieve SVR usually have improvement in liver histology and clinical outcomes.

Nineteen cohort studies (n=105 to 16,864) evaluated the association between SVR after antiviral therapy and mortality or complications of chronic HCV infection. Duration of follow-up ranged from 3 to 9 years. Ten studies were conducted in Asia (60, 67-72, 75, 77, 78). Eight studies (64-66, 72, 75-78) were rated as poor-quality and the remainder as fair quality. Although all studies reported adjusted risk estimates, only 8 (60, 61, 63, 67-70, 73) evaluated 5 key confounders (age, sex, genotype, viral load, and fibrosis stage). No study clearly described assessment of outcomes blinded to SVR status.

The largest study (n=16,864) had the fewest methodologic shortcomings (61). It adjusted for multiple potential confounders, including age, sex, viral load, presence of cirrhosis, multiple comorbid conditions, aminotransferase levels, and others. In a predominantly male, Veterans Affairs population, SVR after antiviral therapy was associated with lower risk for all-cause mortality than was SVR, after median of 3.8 years (adjusted hazard ratios, 0.71 [CI, 0.60 to 0.861], 0.62 [CI, 0.44 to 0.87], and 0.51 [CI, 0.35 to 0.75] for genotypes 1, 2, and 3 respectively). Mortality curves began to separate as soon as 3 to 6 months after SVR assessment.

Eighteen other cohort studies also found SVR to be associated with decreased risk for all-cause mortality (adjusted hazard ratios, 0.07 to 0.39)(60, 69, 72, 73, 75-78), liver-related mortality (adjusted hazard ratios, 0.12 to 0.46)(60, 62, 63, 67, 68, 71, 73-76, 78), and other complications of end-stage liver disease versus no SVR, with effects larger than in the Veterans Affairs study. The subgroup of studies that focused on patients with advanced fibrosis or cirrhosis at baseline (60, 67-72, 75, 77, 78) reported similar risk estimates. (Chou et. al., 2015)

CLINICAL RECOMMENDATION STATEMENTS:

With the advent of new direct acting antiviral treatments, SVR can be as high as 90-95% for most patients. However, adherence to recommended treatment is crucial to ensure the high rate of response. Emerging data from clinical practice show variation in SVR rate across different institutions, ranging from 65 to 87% for the most widely used combination in 2014. This wide variation provides an opportunity to improve the care of HCV patients. (Yehia, B, et al, 2014)

References

Chou R, Hartung D, Rahman B, Wasson N, Cottrell EB, Fu R. Comparative effectiveness of antiviral treatment for hepatitis C virus infection in adults: a systematic review. *Ann Intern Med.* 2013 Jan 15;158(2):114-23. doi: 10.7326/0003-4819-158-2-201301150-00576. PMID: 23437439.

Yehia B, Schranz A, Umscheid C, and Lo Re V. The Treatment Cascade for Chronic Hepatitis C Virus Infection in the United States: A Systematic Review and Meta-Analysis. *PLoS ONE* 9(7), July 2014.