

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

### 2023 COLLECTION TYPE:

MIPS CLINICAL QUALITY MEASURES (COMS)

### MEASURE TYPE:

Outcome

### DESCRIPTION:

Percentage of patients aged  $\geq 18$  years with active hepatitis C (HCV) with negative/undetectable HCV ribonucleic acid (RNA) at least 20 weeks to 12 months after positive/detectable HCV RNA test result.

### INSTRUCTIONS:

This measure is to be reported once per performance period for all patients with a positive/detectable HCV RNA test result identified during the 12-month denominator identification period and seen for an eligible encounter in the denominator identification period. This measure is intended to reflect the quality of services provided for patients with active hepatitis C. 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.

*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:**

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 allowed by the measure. The quality data codes listed do not need to be submitted for registry submissions; however, these codes may be submitted for those registries that utilize claims data.

### DENOMINATOR:

All patients aged  $\geq 18$  years at the time of the eligible encounter with an eligible encounter and positive/detectable HCV RNA test result within the denominator identification period.

### Definition:

Denominator Identification Period – The twelve-month period in which eligible patients have an eligible encounter and have a positive HCV RNA test result. The denominator identification period is defined as 01/01/2022 – 12/31/2022

Note: The CPT codes (87522) and (87521) can be used to determine if a Hepatitis C Virus Quantitative or Qualitative RNA Test was performed to support both denominator and numerator identification.

### Denominator Criteria (Eligible Cases):

All patients aged  $\geq 18$  years at the time of the eligible encounter within the denominator identification period

AND

**Patient encounter during the denominator identification period (CPT):** 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215

**WITH**

Hepatitis C Virus Quantitative or Qualitative RNA Test Completed (CPT 87522) or (CPT 87521) within the denominator identification period

**AND**

Positive/Detectable Hepatitis C Virus Quantitative or Qualitative RNA Test Result within the denominator identification period (GXXXX)

**NUMERATOR:**

All patients aged  $\geq 18$  years at the time of the eligible encounter with an eligible encounter and positive/detectable HCV RNA test result in the denominator identification period who have a subsequent negative/undetectable HCV RNA test result 20 weeks to 12 months after first positive/detectable HCV RNA test result identified in the denominator identification period.

**Numerator Options:**

***Performance Met:*** The patient achieved sustained virological response as identified by an HCV RNA test (CPT 87522) or (CPT 87521) with a negative/undetectable HCV RNA result that occurred 20 weeks to 12 months after the first positive/detectable HCV RNA test result within the denominator identification period. (GXXXX)

**OR**

***Denominator Exception:*** Repeat HCV RNA labs not performed for reasons documented by clinician (e.g., patients whose treatment was discontinued, not covered by insurance, other medical reasons, patient declined, other patient reasons) (GXXXX)

**OR**

***Performance Not Met:*** Patient did not achieve sustained virological response. Sustained virological response is identified by an HCV RNA test (CPT 87522) or (CPT 87521) with a negative/undetectable HCV RNA result that occurred 20 weeks to 12 months after the first positive/detectable HCV RNA test result within the denominator identification period. (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 ration, 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.