NATIONAL QUALITY FORUM

Measure Submission and Evaluation Worksheet 5.0

This form contains the information submitted by measure developers/stewards, organized according to NQF's measure evaluation criteria and process. The evaluation criteria, evaluation guidance documents, and a blank online submission form are available on the submitting standards web page.

NQF #: 0393 NQF Project: Infectious Disease Project

(for Endorsement Maintenance Review)
Original Endorsement Date: Jul 31, 2008 Most Recent Endorsement Date: Jul 31, 2008 Last Updated Date: Nov 16, 2012

BRIEF MEASURE INFORMATION

De.1 Measure Title: Hepatitis C: Testing for Chronic Hepatitis C – Confirmation of Hepatitis C Viremia

Co.1.1 Measure Steward: American Medical Association - Physician Consortium for Performance Improvement (AMA-PCPI)

De.2 Brief Description of Measure: Percentage of patients aged 18 years and older with a diagnosis of hepatitis C seen for an initial evaluation who had HCV RNA testing ordered or previously performed

2a1.1 Numerator Statement: Patients for whom HCV RNA testing was ordered or previously performed

2a1.4 Denominator Statement: All patients aged 18 years and older with a diagnosis of hepatitis C seen for initial evaluation

2a1.8 Denominator Exclusions: Documentation of medical reason(s) for not ordering or performing HCV RNA testing

Documentation of patient reason(s) for not ordering or performing HCV RNA testing

1.1 Measure Type: Process
2a1. 25-26 Data Source: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Registry
2a1.33 Level of Analysis: Clinician : Group/Practice, Clinician : Individual, Clinician : Team

1.2-1.4 Is this measure paired with another measure? No

De.3 If included in a composite, please identify the composite measure (*title and NQF number if endorsed*):

STAFF NOTES (*issues or questions regarding any criteria*)

Comments on Conditions for Consideration:

Is the measure untested? Yes☐ No☐ If untested, explain how it meets criteria for consideration for time-limited endorsement:

1a. Specific national health goal/priority identified by DHHS or NPP addressed by the measure (*check De.5*):
5. Similar/related endorsed or submitted measures (*check 5.1*):
Other Criteria:

Staff Reviewer Name(s):

1. IMPACT, OPPORTUITY, EVIDENCE - IMPORTANCE TO MEASURE AND REPORT

Importance to Measure and Report is a threshold criterion that must be met in order to recommend a measure for endorsement. All three subcriteria must be met to pass this criterion. See guidance on evidence.

See Guidance for Definitions of Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable

Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria)

1a. High Impact: H☐ M☐ L☐ I ☐
(*The measure directly addresses a specific national health goal/priority identified by DHHS or NPP, or some other high impact aspect of healthcare.*)

De.4 Subject/Topic Areas *(Check all the areas that apply)*: Infectious Diseases, Infectious Diseases : Hepatitis
De.5 Cross Cutting Areas (*Check all the areas that apply)*:

1a.1 Demonstrated High Impact Aspect of Healthcare: Affects large numbers, A leading cause of morbidity/mortality, Severity of illness

1a.2 If "Other," please describe:

1a.3 Summary of Evidence of High Impact *(Provide epidemiologic or resource use data)*:
The hepatitis C virus (HCV) is a major public health problem and a leading cause of chronic liver disease.(1) An estimated 180 million people are infected worldwide.(2) In the United States, the prevalence of HCV infection between the years 1999 and 2002 was 1.6%, equating to about 4.1 million persons positive for antibody to hepatitis C (anti-HCV), 80% of whom are estimated to be viremic.(3) Hepatitis C is the principal cause of death from liver disease and the leading indication for liver transplantation in the U.S.(4) Some calculations suggest that mortality related to HCV infection (death from liver failure or hepatocellular carcinoma) will continue to increase over the next two decades.(5)

In a population-based study, 1.8% of a large household-based sample was positive for anti-HCV antibody (2.3% in adults 20 years or older), which translates into an estimated 3.9 million infected persons in the U.S. Of this population, 74% had viremia, which indicated chronic infection, or an estimated 2.7 million (6)

1a.4 Citations for Evidence of High Impact cited in 1a.3: (1) Williams R. Global challenges in liver disease. HEPATOLOGY 2006;44: 521-526.

(2) www.who.int/immunization/topics/hepatitis_c/en/.

(3) Armstrong GL, Wasley A, Simard EP, McQuillan GM, Kuhnert WL, Alter MJ. The prevalence of hepatitis C virus infection in the United States, 1999 through 2002. Ann Intern Med 2006;144:705-714.

(4) Kim WR. The burden of hepatitis C in the United States. HEPATOLOGY 2002;36(Suppl):S30-S34.

(5) Deuffic-Burban S, Poynard T, Sulkowski MS, Wong JB. Estimating the future health burden of chronic hepatitis C and human immunodeficiency virus infections in the United States. J Viral Hepat 2007;14:107-115.

(6)Screening for Hepatitis C Virus Infection. Systematic Evidence Review Number 24. U.S. Department of Health and Human Services Agency for Healthcare Research and Quality. www.ahrq.gov. March 2004

1b. Opportunity for Improvement: H☐ M☐ L☐ I ☐
(*There is a demonstrated performance gap - variability or overall less than optimal performance*)

1b.1 Briefly explain the benefits (improvements in quality) envisioned by use of this measure:
A meta-analysis of 31 studies found a consistent overall estimate of 15 to 20 percent of people who become infected with acute Hepatitis C will clear the virus. The absence of confirmatory viral testing may then leave these 15 to 20 percent of patients with the mistaken belief that they have chronic Hepatitis C, subjecting these patients to unnecessary anxiety and other harms. The remaining viral positive patients could benefit from the additional counseling for their own and for transmission risk, as mentioned by SC members, namely avoiding alcohol, getting vaccinated, and providing counseling regarding transmission and remaining engaged in care. Thus, this test is critically important in differentiating whether or not people have resolved infection or are currently infected with HCV, regardless of whether antiviral treatment is contemplated.

1b.2 Summary of Data Demonstrating Performance Gap *(Variation or overall less than optimal performance across providers)*: [*For Maintenance – Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.*]

Evidence provided by the CDC, Boston Medical Center and the Cleveland VA Medical Center below shows that a substantial performance gap exists for this measure, illustrating that in practice, confirmatory testing after initial HCV antibody testing is NOT being done often enough to constitute "Standard of Care." Of 20,285 reports of HCV infection received by CDC from state/local surveillance programs in 2006-2007, a total of 10,834 (47.6%) reports had no positive result for HCV RNA.(1) CDC recently reviewed electronic health records of >1,652,055 adult patients seen from January 2006 through December 2010 at 4 integrated healthcare systems in Detroit, Michigan; Danville, Pennsylvania; Portland, Oregon; and Honolulu, Hawaii. Of 9,086 patients with a positive HCV antibody test, 3,428 (37.7%) had no documented follow-up HCV RNA testing in the electronic database.(2) A study conducted at Boston Medical Center of CMS-defined HCV quality indicators, comparing data from 2005-2007 to 2008-2011, revealed a decline in the confirmation of HCV viremia from 73% to 63%.(3)

Members of the Department of Medicine at Louis Stokes Cleveland Department of Veterans Affairs Medical Center in Cleveland, OH found similar rates of testing in their study and included additional information in their conclusions related to implications. They looked at ~400 people who lacked HCV nucleic acid amplification technology (NAT) testing to characterize behaviors in response to patients who have a positive HCV antibody (ab) test but lack viral confirmatory testing. Below are their findings:

1. Thirty one percent of patients with a positive HCV ab test, never had that result acknowledged by a medical provider (HCV ordering or other provider), resulting in missed opportunities for follow-up liver care and Hepatitis C treatment.(4)

2. In 251 instances, the positive HCV ab test was acknowledged by the ordering provider, and despite the lack of viral NAT, these providers took actions that indicated they believed patients had chronic Hepatitis C.(4) These actions included addition of the ICD-9 diagnosis for chronic Hepatitis C to the patient's problem list, ordering serial liver function tests, ordering HAV/HBV vaccinations, etc. Interestingly, very few providers ordered confirmatory NAT in response to the positive HCV ab.

3. In the cases where HCV was entered into the patient's problem list in the EMR, this unconfirmed diagnosis was "perpetuated" by future medical providers that the patient saw in 85% of instances.(4)

While this data is not randomized, nor does it contain a control group, it highlights some of the misconceptions about HCV diagnosis amongst general medical providers and mental health providers that may order HCV ab tests as part of their practices. Unconfirmed diagnoses of HCV can lead to stigmatization, receipt of unnecessary medical interventions, and avoidance of important medical interventions (e.g., statin use). This may be even more impactful as the CDC's birth cohort screening recommendations trigger more screening.

1b.3 Citations for Data on Performance Gap: [*For Maintenance – Description of the data or sample for measure results reported in 1b.2 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*]

(1) Speers S, Klevens RM, Vonderwahl C, Bryant T, Daniloff E, Capizzi J, Poissant T, Roome A. Electronic matching of HIV/AIDS and hepatitis C surveillance registries in three states. Public Health Rep. 2011 May-Jun;126(3):344-8.

(2)Moorman AC, Gordon SC, Rupp et al. Baseline Characteristics and Mortality Among People in Care for Chronic Viral Hepatitis: The Chronic Hepatitis Cohort Study. Clin Infect Dis. 2012 Oct 19. [Epub ahead of print].

(3)Sabrina A. Assoumou MD, Wei Huang MA, Benjamin P. Linas, MD MPH. [Poor] Quality of Hepatitis C care at an urban tertiary medical center. Study conducted at Boston Medical Center. Outcomes: Centers for Medicare & Medicaid (CMS)-defined HCV quality indicators introduced in 2008: HCV RNA testing, Genotype testing, Hep A & Hep B vaccinations. Poster presentation from the Infectious Diseases Society of America (IDSA) meeting, 2012.

(4)Yang Liu, BA, Renee H. Lawrence, PhD, Brook Watts, MD, Yngve Falck-Ytter, MD, Amy Hirsch, PharmD. Understanding the Care Gap and Missed Opportunities for Hepatitis C Confirmatory Viral testing. Poster presentation from the Society of General Interal Medicine (SGIM) meeting, 2012.

1b.4 Summary of Data on Disparities by Population Group: [*For Maintenance –Descriptive statistics for performance results for this measure by population group*]

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.(1) First, there are disparities in the prevalence of HCV infection, with African Americans being twice as likely to have ever been infected with HCV, and having a higher prevalence of chronic HCV infection compared with non-Hispanic white Americans.(2) Additionally, there are significant disparities in access to HCV care for racial and ethnic minorities.(3) Finally, African American and Hispanic patients with HCV infection, even once properly diagnosed, have less desirable treatment outcomes compared to white patients.(4) These trends are indicative of a growing healthcare crisis with regards to HCV that threatens minority communities for decades to come.(1)

1b.5 Citations for Data on Disparities Cited in 1b.4: [*For Maintenance – Description of the data or sample for measure results reported in 1b.4 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included*]

(1) Bryant Cameron Webb. The "Secret" epidemic: Disparities in Hepatitis C Incidence, Treatment, and Outcomes. Prepared for the Joint Center for Political and Economic Studies. October 2010.

(2) Alter MJ, Kruszon-Moran D, Nainan OV, et al. The prevalence of hepatitis C virus infection in the United States, 1988 through 1994. New England Journal of Medicine. 1999:341(8): 556-562.

(3) Trooskin SB, Navarro VJ, Winn RJ, et al. Hepatitis C risk assessment, testing and referral for treatment in urban primary care: Role of race and ethnicity. World J Gastro 2007:13:1074.

(4) Conjeevaram HS, Fried MW, Jeffers LJ, et al. Virahep-C study group. Peginterferon and ribavirin treatment in African American and Caucasian American patients with hepatitis C genotype 1. Gastroenterology. 2006 Aug; 131(2):470-7.

1c. Evidence (*Measure focus is a health outcome OR meets the criteria for quantity, quality, consistency of the body of evidence.*)
Is the measure focus a health outcome? Yes☐ No☐ If not a health outcome, rate the body of evidence.

Quantity: H☐ M☐ L☐ I☐ Quality: H☐ M☐ L☐ I☐ Consistency: H☐ M☐ L☐ I☐

Quantity	Quality	Consistency	Does the measure pass subcriterion1c?
M-H	M-H	M-H	Yes☐
L	M-H	M	Yes☐ IF additional research unlikely to change conclusion that benefits to patients outweigh harms: otherwise No☐
M-H	L	M-H	Yes☐ IF potential benefits to patients clearly outweigh potential harms: otherwise No☐
L-M-H	L-M-H	L	No ☐

Health outcome – rationale supports relationship to at least one healthcare structure, process, intervention, or service	Does the measure pass subcriterion1c? Yes☐ IF rationale supports relationship

1c.1 Structure-Process-Outcome Relationship *(Briefly state the measure focus, e.g., health outcome, intermediate clinical outcome, process, structure; then identify the appropriate links, e.g., structure-process-health outcome; process- health outcome; intermediate clinical outcome-health outcome)*:

A meta-analysis of 31 studies found a consistent overall estimate of 15 to 20 percent of people who become infected with acute Hepatitis C will clear the virus. The absence of confirmatory viral testing may then leave these 15 to 20 percent of patients with the mistaken belief that they have chronic Hepatitis C, subjecting these patients to unnecessary anxiety and other harms. The remaining viral positive patients could benefit from the additional counseling for their own and for transmission risk, as mentioned by SC members, namely avoiding alcohol, getting vaccinated, and providing counseling regarding transmission and remaining engaged in care. Thus, this test is critically important in differentiating whether or not people have resolved infection or are currently infected with HCV, regardless of whether antiviral treatment is contemplated.

1c.2-3 Type of Evidence *(Check all that apply)*:
Clinical Practice Guideline

1c.4 Directness of Evidence to the Specified Measure *(State the central topic, population, and outcomes addressed in the body of evidence and identify any differences from the measure focus and measure target population)*:
According to the guideline, specific recommendations are based on relevant published information. The evidence cited in this guideline is directly related to the HCV RNA testing needed to establish and confirm diagnosis of chronic hepatitis C.

1c.5 Quantity of Studies in the Body of Evidence *(Total number of studies, not articles)*: The guideline developer did not state the quantity of studies used.

1c.6 Quality of Body of Evidence (*Summarize the certainty or confidence in the estimates of benefits and harms to patients across studies in the body of evidence resulting from study factors. Please address: a) study design/flaws; b) directness/indirectness of the evidence to this measure (e.g., interventions, comparisons, outcomes assessed, population included in the evidence); and c) imprecision/wide confidence intervals due to few patients or events*): While the quality of the body of evidence is not addressed, the guideline developer stated: "These recommendations provide a data-supported approach to establishing guidelines. They are based on the following: (1) a formal review and analysis of the recently published world literature on the topic (Medline search up to September 2008); (2) the American College of Physicians' Manual for Assessing Health Practices and Designing Practice Guidelines; (3) guideline policies, including the American Association for the Study of Liver Diseases' (AASLD) Policy on the Development and Use of Practice Guidelines and the American Gastroenterological Association's Policy Statement on the Use ofMedical Practice Guidelines; and (4) the experience of the authors in regard to hepatitis C." (AASLD 2009)

In addition, Class IB and Class IA recommendations reflect Class I-Conditions for which there is evidence and/or general agreement that a given diagnostic evaluation procedure or treatment is beneficial, useful, and effective; and Level A-Data derived from multiple randomized clinical trials or meta-analyses and Level B-Data derived from a single randomized trial, or nonrandomized studies. (AASLD 2009)

1c.7 Consistency of Results across Studies *(Summarize the consistency of the magnitude and direction of the effect):* The consistency of results across studies was not addressed by the guideline.

1c.8 Net Benefit *(Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms)*:
The benefit over harms across studies was not addressed by the guideline.

1c.9 Grading of Strength/Quality of the Body of Evidence. Has the body of evidence been graded? No

1c.10 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: n/a

1c.11 System Used for Grading the Body of Evidence: Other

1c.12 If other, identify and describe the grading scale with definitions: n/a

1c.13 Grade Assigned to the Body of Evidence: n/a

1c.14 Summary of Controversy/Contradictory Evidence: A summary of controversy/contradictory evidence was not provided.

1c.15 Citations for Evidence other than Guidelines*(Guidelines addressed below)*:
n/a

1c.16 Quote verbatim, the specific guideline recommendation *(Including guideline # and/or page #)*:
HCV ribonucleic acid (RNA) testing should be performed in:
a. patients with a positive anti-HCV test (Class 1B)
b. patients for whom antiviral treatment is being considered, using a sensitive quantitative assay (Class 1A)
c. patients with unexplained liver disease whose anti-HCV test is negative and who are immunocompromised or suspected of having acute HCV infection (Class 1B) (AASLD 2009-Recommendation 5)

1c.17 Clinical Practice Guideline Citation: Marc G. Ghany, Doris B. Strader, David L. Thomas, and Leonard B. Seeff. American Association for the Study of Liver Diseases' (AASLD) Practice Guidelines: Diagnosis, Management, and Treatment of Hepatitis C: An Update. Hepatology, April 2009: 1335-1374.

1c.18 National Guideline Clearinghouse or other URL: http://guideline.gov/content.aspx?id=14708

1c.19 Grading of Strength of Guideline Recommendation. Has the recommendation been graded? Yes

1c.20 If guideline recommendation graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias: The Practice Guidelines Committee of the AASLD. Potential conflict of interest: Drs. Marc Ghany, Leonard Seeff, and Doris Strader have no financial relationships to declare. Dr. David Thomas was on the Advisory Board of Merck, Sharpe and Dohme at the time of writing but has since resigned from this position.

1c.21 System Used for Grading the Strength of Guideline Recommendation: Other

1c.22 If other, identify and describe the grading scale with definitions: Classification Description
Class I Conditions for which there is evidence and/or general agreement that a given diagnostic evaluation procedure or treatment is beneficial, useful, and effective.
Class II Conditions for which there is conflicting evidence and/or a divergence of opinion about the usefulness/efficacy of a diagnostic evaluation, procedure or treatment.
Class IIa Weight of evidence/opinion is in favor of usefulness/efficacy.
Class IIb Usefulness/efficacy is less well established by evidence/opinion.
Class III Conditions for which there is evidence and/or general agreement that a diagnostic evaluation, procedure/treatment is not useful/effective and in some cases may be harmful.

Level of Evidence Description
Level A Data derived from multiple randomized clinical trials or meta-analyses.
Level B Data derived from a single randomized trial, or nonrandomized studies.
Level C Only consensus opinion of experts, case studies, or standard-of-care.

NOTE: To more fully characterize the quality of evidence supporting recommendations, the Practice Guidelines Committee of the AASLD requires a Class (reflecting benefit versus risk) and Level (assessing strength or certainty) of Evidence to be assigned and reported with each recommendation (Table 1, adapted from the American College of Cardiology and the American Heart association Practice Guidelines).

1c.23 Grade Assigned to the Recommendation: Class IB and Class IA

1c.24 Rationale for Using this Guideline Over Others: It is the PCPI policy to use guidelines, which are evidence-based, applicable to physicians and other health-care providers, and developed by a national specialty organization or government agency. In addition, the PCPI has now expanded what is acceptable as the evidence base for measures to include documented quality improvement (QI) initiatives or implementation projects that have demonstrated improvement in quality of care.

Based on the NQF descriptions for rating the evidence, what was the developer's assessment of the quantity, quality, and consistency of the body of evidence?
1c.25 Quantity: Moderate 1c.26 Quality: Moderate1c.27 Consistency: Moderate

1c.28 Attach evidence submission form:
1c.29 Attach appendix for supplemental materials:

Was the threshold criterion, *Importance to Measure and Report*, met?
(*1a & 1b must be rated moderate or high and 1c yes*) Yes☐ No☐
Provide rationale based on specific subcriteria:

For a new measure if the Committee votes NO, then STOP.
For a measure undergoing endorsement maintenance, if the Committee votes NO because of 1b. (no opportunity for improvement), it may be considered for continued endorsement and all criteria need to be evaluated.

2. RELIABILITY & 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. (evaluation criteria)
Measure testing must demonstrate adequate reliability and validity in order to be recommended for endorsement. Testing may be conducted for data elements and/or the computed measure score. Testing information and results should be entered in the appropriate field. Supplemental materials may be referenced or attached in item 2.1. See guidance on measure testing.

S.1 Measure Web Page *(In the future, NQF will require measure stewards to provide a URL link to a web page where current detailed specifications can be obtained*). Do you have a web page where current detailed specifications for this measure can be obtained? Yes

S.2 If yes, provide web page URL: www.physicianconsortium.org

2a. RELIABILITY. Precise Specifications and Reliability Testing: H☐ M☐ L☐ I☐

2a1. Precise Measure Specifications. (*The measure specifications precise and unambiguous.*)

2a1.1 Numerator Statement *(Brief, narrative description of the measure focus or what is being measured about the target population, e.g., cases from the target population with the target process, condition, event, or outcome)*:
Patients for whom HCV RNA testing was ordered or previously performed

2a1.2 Numerator Time Window *(The time period in which the target process, condition, event, or outcome is eligible for inclusion)*:
Once, at time of diagnosis

2a1.3 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, codes with descriptors, and/or specific data collection items/responses*:
EHR Specifications:
eSpecifications attached

2a1.4 Denominator Statement *(Brief, narrative description of the target population being measured)*:
All patients aged 18 years and older with a diagnosis of hepatitis C seen for initial evaluation

2a1.5 Target Population Category *(Check all the populations for which the measure is specified and tested if any)*: Adult/Elderly Care

2a1.6 Denominator Time Window *(The time period in which cases are eligible for inclusion)*:
12 consecutive months

2a1.7 Denominator Details (*All information required to identify and calculate the target population/denominator such as definitions, codes with descriptors, and/or specific data collection items/responses)*:
There are two ways the denominator may be captured: (1) for new patients and (2) for established/consult patients. This allows for all physicians who see a patient for an initial evaluation for Hepatitis C to utilize the measure.

EHR Specifications:
eSpecifications attached

2a1.8 Denominator Exclusions *(Brief narrative description of exclusions from the target population)*:
Documentation of medical reason(s) for not ordering or performing HCV RNA testing

Documentation of patient reason(s) for not ordering or performing HCV RNA testing

2a1.9 Denominator Exclusion Details *(All information required to identify and calculate exclusions from the denominator such as definitions, codes with descriptors, and/or specific data collection items/responses)*:
The PCPI exception methodology uses three categories of 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 sometimes provided in the measure exception language of instances that may constitute an exception and are intended to serve as a guide to clinicians. For this measure, exceptions may include medical reason(s) and patient reason(s) for not ordering or performing HCV RNA testing. Where examples of exceptions are included in the measure language, value sets for these examples are developed and included in the eSpecifications. 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. Additional details by data source are as follows:

EHR Specifications:
eSpecifications attached

2a1.10 Stratification Details/Variables *(All information required to stratify the measure results including the stratification variables, codes with descriptors, definitions, and/or specific data collection items/responses)*:
We encourage the results of this measure to be stratified by race, ethnicity, gender, and primary language, and have included these variables as recommended data elements to be collected.

2a1.11 Risk Adjustment Type *(Select type. Provide specifications for risk stratification in 2a1.10 and for statistical model in 2a1.13)*: No risk adjustment or risk stratification 2a1.12 If "Other," please describe:

2a1.13 Statistical Risk Model and Variables *(Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development should be addressed in 2b4.)*:
None

2a1.14-16 Detailed Risk Model Available at Web page URL (or attachment). Include coefficients, equations, codes with descriptors, definitions, and/or specific data collection items/responses. Attach documents only if they are not available on a webpage and keep attached file to 5 MB or less. NQF strongly prefers you make documents available at a Web page URL. Please supply login/password if needed:

2a1.17-18. Type of Score: Rate/proportion

2a1.19 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

2a1.20 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 patient population (ie, the general group of patients that a set of performance measures is designed to address).
2) From the patients within the initial patient 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 patient population and denominator are identical.
3) From the patients within the denominator, find the patients who qualify for the Numerator (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
4) From the patients who did not meet the numerator criteria, determine if the physician has documented that the patient meets any criteria for denominator when exceptions have been specified [for this measure: medical reason(s) patient reason(s)]. 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 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.

Calculation algorithm is included in data dictionary/code table attachment 2a1.30.

2a1.21-23 Calculation Algorithm/Measure Logic Diagram URL or attachment:

2a1.24 Sampling (Survey) Methodology. If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):
Not applicable. The measure does not require sampling or a survey.

2a1.25 Data Source *(Check all the sources for which the measure is specified and tested*). If other, please describe:
Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Electronic Clinical Data : Registry

2a1.26 Data Source/Data Collection Instrument (*Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.*): Not Applicable

2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment:

2a1.30-32 Data Dictionary/Code Table Web Page URL or Attachment:
Attachment
AMA-PCPI_0393_Confirmation_HepC_Viremia_7.11.12.pdf

2a1.33 Level of Analysis (*Check the levels of analysis for which the measure is specified and tested)*: Clinician : Group/Practice, Clinician : Individual, Clinician : Team

2a1.34-35 Care Setting *(Check all the settings for which the measure is specified and tested)*: Ambulatory Care : Clinician Office/Clinic, Ambulatory Care : Urgent Care, Other:Hospital Outpatient Clinic

2a2. Reliability Testing. (*Reliability testing was conducted with appropriate method, scope, and adequate demonstration of reliability*.)

2a2.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
Refer to the validity section for a description of the data sample for our EHR testing project.

2a2.2 Analytic Method *(Describe method of reliability testing & rationale)*:
Refer to the validity section for a description of the analytic methods for our EHR testing project.

2a2.3 Testing Results *(Reliability statistics, assessment of adequacy in the context of norms for the test conducted)*:
Refer to the validity section for a description of the testing results for our EHR testing project.

2b. VALIDITY. Validity, Testing, including all Threats to Validity: H☐ M☐ L☐ I ☐

2b1.1 Describe how the measure specifications *(measure focus, target population, and exclusions)* are consistent with the evidence cited in support of the measure focus (*criterion 1c)* and identify any differences from the evidence:
The measure specifications are consistent with the evidence from the guideline.

2b2. Validity Testing. (*Validity testing was conducted with appropriate method, scope, and adequate demonstration of validity.)*

2b2.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
EHR Measure Validity
The measure performance was calculated from data collected using two different methods of collection:

- Automated EHR report
- Visual inspection of the medical record by professional data abstractors to capture the data elements to manually construct the performance

The data source was electronic health records in the ambulatory care setting.
The data sample came from 2 sites representing a community health center and a large independent specialty practice, both in the Midwest region.
The sample consisted of 1144 patient encounters.
Visual inspection of the medical record was performed in 2010.

Face Validity
An expert panel was used to assess face validity of the measure. This panel consists of 22 members, with representation from the following specialties: infectious diseases, gastroenterology, methodology, hepatology, family medicine, OB/GYN, internal medicine, nursing, health plan representation and patient advocacy.

Oluwatoyin Adeyemi, MD (infectious diseases) Cook County Hospital, Rush University Medical Center, Chicago, IL
Maureen L. Borkowski, RN, BSN Information Specialist, American Liver Foundation, Cedar Grove, NJ
Joel V. Brill, MD (gastroenterology) American Gastroenterological Association, Phoenix, AZ
Betty Jo Edwards, MD (OB/GYN) Texas Medical Arts Tower, Houston, TX
Debra Esser, MD, MMM (family medicine) Omaha, NE
Gregory T. Everson, MD (gastroenterology) University of Colorado Denver, Section of Hepatology, Aurora, CO
Troy Fiesinger, MD, FAAFP (family medicine) Memorial Family Medicine Residency, Physicians at Sugar Creek, Sugar Land, TX
Michael W. Fried, MD (gastroenterology, hepatology) Professor of Medicine, Director, UNC Liver Center, University of North Carolina @ Chapel Hill, Chapel Hill, NC
Stephen A. Harrison, MD (gastroenterology) Assistant Professor, Division of Gastroenterology, Brooke Army Medical Center, Fort Sam Houston, TX
Ira Jacobson, MD (gastroenterology, hepatology) Chief, Division of GI & Hepatology, Weill Medical College of Cornell, New York, NY
Catherine MacLean, MD, PhD (health plan representative) Medical Director, Programs for Clinical Excellence WellPoint, Inc.,

Westlake Village, CA
Lynn McElroy American Liver Foundation, Cedar Grove, NJ
Paola Ricci, MD (gastroenterology) VA Medical Center-Gastroenterology, Minneapolis, MN
Sam J. W. Romeo, MD, MBA (family medicine) General Partner, Tower Health & Wellness Center, LP, Turlock, CA
John F. Schneider, MD, PhD (internal medicine) Past President, Illinois State Medical Society, Flossmoor, IL
Leonard B. Seeff, MD (hepatology) Food and Drug Administration, Silver Spring, MD
Kenneth E. Sherman, MD, PhD (hepatology, gastroenterology) Director, Division of Digestive Disease, University of Cincinnati School of Medicine, Cincinnati, OH
Alan D. Tice, MD, FACP (infectious diseases) Infections Limited Hawaii, Honolulu, HI
Monte Troutman, DO, FACOI (gastroenterology) Chairman, Department of Medicine, Chief, Division of Gastroenterology, University of North Texas Health Science Center/ Texas College of Osteopathic Medicine, Fort Worth, TX
John Ward, MD (internal medicine) Director, Division of Viral Hepatitis, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (proposed), Centers for Disease Control and Prevention, Atlanta, GA
Josie R. Williams, MD, MMM (gastroenterology/methodology) Director, Rural & Community Health Institute: QPSI, Asst. Professor of Internal & Family Medicine, Texas A&M University System, College Station, TX
John B. Wong, MD (gastroenterology, hepatology) Tufts New England Medical Center, Clinical Decision Making, Boston, MA

2b2.2 Analytic Method *(Describe method of validity testing and rationale; if face validity, describe systematic assessment)*:
EHR MEASURE VALIDITY
Data from a performance report for the measure automatically-generated from the EHR (designed to collect the necessary data elements to identify eligible cases and calculate the performance score) were compared to data elements found and scores calculated manually on visual inspection of the medical record by trained abstractors.

Data analysis included:
- Adjusted performance comparison
  - The number of patients with a valid numerator and the number of patients with a valid exception from the sample who appeared to fail the measures (i.e. false negatives).
- Kappa statistic to adjust for chance agreement

Face Validity
Face validity of the measure score as an indicator of quality was systematically assessed as follows.
After the measure was fully specified, the expert panel (workgroup membership) was asked to rate their agreement with the following statement:
The scores obtained from the measure as specified will provide an accurate reflection of quality and can be used to distinguish good and poor quality.
Scale 1-5, where 1= Strongly Disagree; 3= Neither Agree nor Disagree; 5= Strongly Agree

2b2.3 Testing Results *(Statistical results, assessment of adequacy in the context of norms for the test conducted; if face validity, describe results of systematic assessment)*:
EHR MEASURE VALIDITY
This measure demonstrated substantial agreement when comparing EHR automated report to visual inspection of the medical record.

- The automated report showed 56.6 % performance for this measure. After manual abstraction this changed to 64.9%. This was primarily due to patients who were found to meet the numerator upon manual review of the patient record. This measure is highly reliable and rarely found to be inaccurate upon manual review. One potential reason for the high reliability is that this measure is laboratory-based. The test either was or was not performed, either of which is straightforward to determine by automated calculation.

Reliability: N, Kappa Statistic (95% CI)
66, 0.65 (0.448, 0.948)

The reliability rates (kappa statistic) between the automated calculation of performance in the EHR and the manual review of the patient medical records.

Face Validity
The results of the Expert Panel rating of the validity statement were as follows: N=13; Mean rating=4.92 and 100.00% of respondents either agree or strongly agree that this measure can accurately distinguish good and poor quality.

The results of the Expert Panel rating of the validity statement were as follows:
Frequency Distribution of Ratings
1- 0 (Strongly Disagree)
2- 0
3- 0 (Neither Disagree nor Agree)
4- 1
5- 12 (Strongly Agree)

Face Validity
The results of the expert panel rating of the validity statement were as follows: N = 13; Mean rating = 4.92 and 100.00% of respondents either agree or strongly agree that this measure can accurately distinguish good and poor quality

The results of the expert panel rating of the validity statement were as follows:
Frequency Distribution of Ratings
1 - 0 (Strongly Disagree)
2 - 0
3 - 0 (Neither Disagree nor Agree)
4 - 1
5 - 12 (Strongly Agree)

POTENTIAL THREATS TO VALIDITY. (*All potential threats to validity were appropriately tested with adequate results.*)

2b3. Measure Exclusions. (*Exclusions were supported by the clinical evidence in 1c or appropriately tested with results demonstrating the need to specify them.*)

2b3.1 Data/Sample for analysis of exclusions *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
EHR Measure Validity
The measure performance was calculated from data collected using two different methods of collection:
- Automated EHR report
- Visual inspection of the medical record by professional data abstractors to capture the data elements to manually construct the performance

The data source was electronic health records in the ambulatory care setting.
The data sample came from 2 sites representing a community health center and a large independent specialty practice, both in the Midwest region.
The sample consisted of 1144 patient encounters.
Visual inspection of the medical record was performed in 2010.

2b3.2 Analytic Method (*Describe type of analysis and rationale for examining exclusions, including exclusion related to patient preference)*:
EHR Measure Validity
Data analysis included:
- Percent agreement (false positives and false negatives)
- Adjusted performance rates were projected for each measure by projecting both the number of patients with a valid numerator and number of patients with a valid exception from the sample who appeared to fail the measure

- Verbatim exceptions reasons were captured for each measure

2b3.3 Results *(Provide statistical results for analysis of exclusions, e.g., frequency, variability, sensitivity analyses):*
EHR MEASURE VALIDITY
This measure demonstrates moderate agreement when comparing EHR automated report to visual inspection of the medical record.
Reliability: N, Agreement %
Overall: 66 patients, 100% agreement on exceptions
The automated performance rate did not change after manual review due to exceptions as agreement on exceptions was 100%.

2b4. Risk Adjustment Strategy. (*For outcome measures, adjustment for differences in case mix (severity) across measured entities was appropriately tested with adequate results.*)

2b4.1 Data/Sample *(Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
This measure is not risk adjusted.

2b4.2 Analytic Method (*Describe methods and rationale for development and testing of risk model or risk stratification including selection of factors/variables)*:
This measure is not risk adjusted.

2b4.3 Testing Results *(Statistical risk model: Provide quantitative assessment of relative contribution of model risk factors; risk model performance metrics including cross-validation discrimination and calibration statistics, calibration curve and risk decile plot, and assessment of adequacy in the context of norms for risk models. Risk stratification: Provide quantitative assessment of relationship of risk factors to the outcome and differences in outcomes among the strata)*:
This measure is not risk adjusted.

2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to justify lack of adjustment: As a process measure, no risk adjustment is necessary.

2b5. Identification of Meaningful Differences in Performance. (*The performance measure scores were appropriately analyzed and discriminated meaningful differences in quality.*)

2b5.1 Data/Sample *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
- Electronic matching of HIV/AIDS and hepatitis C surveillance registries in three states.
  - 20,285 reports of HCV infection received by CDC from state/local surveillance programs in 2006-2007
  - Defined a case of HCV infection as a person with a reactive antibody for hepatitis C, medical diagnosis, positive viral-load test result, or positive genotype reported to any of three state health departments from the start of each state's hepatitis C registry through June 30, 2008.
  - Defined a case of HIV/AIDS as a person diagnosed and living with HIV/AIDS at the start of each state's respective hepatitis C registry through June 30, 2008.
- Baseline Characteristics and Mortality Among People in Care for Chronic Viral Hepatitis: The Chronic Hepatitis Cohort Study
  - CDC reviewed electronic health records of >1,652,055 adult patients seen at 4 integrated healthcare systems in Detroit, Michigan; Danville, Pennsylvania; Portland, Oregon; and Honolulu, Hawaii
  - Complete observation time was determined to be time from first evidence of hepatitis infection in the EHR, including retrospective data prior to 2006 until last health system encounter, death or December 31, 2010
- [Poor] Quality of Hepatitis C care at an urban tertiary medical center
  - A study conducted at Boston Medical Center of CMS-defined HCV quality indicators, comparing data from 2005-2007 to 2008-2011
  - CMS-defined HCV quality indicators: 1) HCV RNA testing; 2) Genotype testing; 3) Treatment initiation 4) HAV and HBV vaccination or documented immunity
  - Inclusion criteria: >= 18 years old, Engagement in care (at least 2 outpatient visits, and a minimum of 6 months follow-up

time
- 5,495 patients diagnosed with reactive HCV antibody; 3,108 engaged in care
- Understanding the Care Gap and Missed Oportunities for Hepatitis C Confirmatory Viral Testing
- 419 subjects who lacked HCV nucleic acid amplification technology (NAT) testing to characterize behaviors in response to patients who have a positive HCV antibody (ab) test but lack viral confirmatory testing

Speers S, Klevens RM, Vonderwahl C, Bryant T, Daniloff E, Capizzi J, Poissant T, Roome A. Electronic matching of HIV/AIDS and hepatitis C surveillance registries in three states. Public Health Rep. 2011 May-Jun;126(3):344-8.

Moorman AC, Gordon SC, Rupp et al. Baseline Characteristics and Mortality Among People in Care for Chronic Viral Hepatitis: The Chronic Hepatitis Cohort Study. Clin Infect Dis. 2012 Oct 19. [Epub ahead of print].

Sabrina A. Assoumou MD, Wei Huang MA, Benjamin P. Linas, MD MPH. [Poor] Quality of Hepatitis C care at an urban tertiary medical center. Study conducted at Boston Medical Center. Outcomes: Centers for Medicare & Medicaid (CMS)-defined HCV quality indicators introduced in 2008: HCV RNA testing, Genotype testing, Hep A & Hep B vaccinations. Poster presentation from the Infectious Diseases Society of America (IDSA) meeting, 2012.

Yang Liu, BA, Renee H. Lawrence, PhD, Brook Watts, MD, Yngve Falck-Ytter, MD, Amy Hirsch, PharmD. Understanding the Care Gap and Missed Opportunities for Hepatitis C Confirmatory Viral testing. Poster presentation from the Society of General Interal Medicine (SGIM) meeting, 2012.

2b5.2 Analytic Method *(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance)*:
- Electronic matching of HIV/AIDS and hepatitis C surveillance registries in three states.
  - HIV/AIDS and hepatitis C datasets were matched using Link King, public domain record linkage and consolidation software, and all potential matches were manually reviewed before acceptance as a match.
- Baseline Characteristics and Mortality Among People in Care for Chronic Viral Hepatitis: The Chronic Hepatitis Cohort Study
  - Algorithms for inclusion in the chronic hepatitis B and C cohorts were developed and applied to the EHR and administrative data of patients aged =18 years from all sites with any healthcare utilization during 2006–2008
  - Complex algorithms were developed with a bias to capture the greatest number of verifiable chronic hepatitis B and C cases from the raw observational data, while excluding those with a single unconfirmed diagnosis or laboratory evidence that might be due to acute disease, error, or lack of necessary clinical or laboratory workup.
- [Poor] Quality of Hepatitis C care at an urban tertiary medical center
  - Statistical approach: descriptive and univariable analysis of the percentage of patients receiving each QI measure
  - Logistic regression to identify predictors of quality care
- Understanding the Care Gap and Missed Opportunities for Hepatitis C Confirmatory Viral testing
  - Conducted a chart review to collect demographic data and patterns of provider behavior surrounding positive HCV screening tests for patients in the CARE GAP .
  - Determined if the positive result was acknowledged in the Electronic Medical Record (EMR), and the service (PCP, non-PCP) of the ordering and acknowledging provider.
  - For labs ordered and acknowledged by same provider, determined how provider acknowledged positive the HCVab: e.g., mentioned confirmatory testing, documented “Hepatitis C” in EMR, or took Hepatitis C follow-up clinical actions.
  - Determined if unconfirmed diagnosis of “Hepatitis C” was referenced in a progress note of a future medical provider

2b5.3 Results *(Provide measure performance results/scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningfully differences in performance)*:

The evidence shows that a substantial performance gap remains, illustrating that in practice, confirmatory testing after initial HCV antibody testing is NOT being done often enough to constitute “Standard of Care.”
- Electronic matching of HIV/AIDS and hepatitis C surveillance registries in three states.
  - Of the 20,285 reports of HCV infection received by CDC from state/local surveillance programs in 2006-2007, a total of 10,834 (47.6%) reports had no positive result for HCV RNA.
- Baseline Characteristics and Mortality Among People in Care for Chronic Viral Hepatitis: The Chronic Hepatitis Cohort Study

o Of 9,086 patients with a positive HCV antibody test, 3,428 (37.7%) had no documented follow-up HCV RNA testing in the electronic database.
• [Poor] Quality of Hepatitis C care at an urban tertiary medical center
o The study revealed a decline in the confirmation of HCV viremia from 73% (N=1168) in 2005-2007 to 63% (N=897) in 2008-2011.
• Understanding the Care Gap and Missed Opportunities for Hepatitis C Confirmatory Viral testing
o 31% of patients with a positive HCV ab test, never had that result acknowledged by a medical provider (HCV ordering or other provider), resulting in missed opportunities for follow-up liver care and Hepatitis C treatment.
o In 251 instances, the positive HCV ab test was acknowledged by the ordering provider, and despite the lack of viral NAT, these providers took actions that indicated they believed patients had chronic Hepatitis C.4 These actions included addition of the ICD-9 diagnosis for chronic Hepatitis C to the patient's problem list, ordering serial liver function tests, ordering HAV/HBV vaccinations, etc. Interestingly, very few providers ordered confirmatory NAT in response to the positive HCV ab.
o In the cases where HCV was entered into the patient's problem list in the EMR, this unconfirmed diagnosis was "perpetuated" by future medical providers that the patient saw in 85% of instances.

2b6. Comparability of Multiple Data Sources/Methods. (*If specified for more than one data source, the various approaches result in comparable scores.*)

2b6.1 Data/Sample *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included)*:
Please refer to the EHR Measure Validity section of this form.

2b6.2 Analytic Method *(Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure)*:
Please refer to the EHR Measure Validity section of this form.

2b6.3 Testing Results *(Provide statistical results, e.g., correlation statistics, comparison of rankings; assessment of adequacy in the context of norms for the test conducted)*:
Please refer to the EHR Measure Validity section of this form.

2c. Disparities in Care: H☐ M☐ L☐ I☐ NA☐ (*If applicable, the measure specifications allow identification of disparities.*)

2c.1 If measure is stratified for disparities, provide stratified results *(Scores by stratified categories/cohorts)*: We encourage the results of this measure to be stratified by race, ethnicity, gender, and primary language, and have included these variables as recommended data elements to be collected.

2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:
The PCPI advocates that performance measure data should, where possible, be stratified by race, ethnicity, and primary language to assess disparities and initiate subsequent quality improvement activities addressing identified disparities, consistent with recent national efforts to standardize the collection of race and ethnicity data. A 2008 NQF report endorsed 45 practices including stratification by the aforementioned variables.(1) A 2009 IOM report "recommends collection of the existing Office of Management and Budget (OMB) race and Hispanic ethnicity categories as well as more fine-grained categories of ethnicity(referred to as granular ethnicity and based on one's ancestry) and language need (a rating of spoken English language proficiency of less than very well and one's preferred language for health-related encounters)."(2)

References:
(1)National Quality Forum Issue Brief (No.10). Closing the Disparities Gap in Healthcare Quality with Performance Measurement and Public Reporting. Washington, DC: NQF, August 2008.

(2)Race, Ethnicity, and Language Data: Standardization for Health Care Quality Improvement. March 2010. AHRQ Publication No. 10-0058-EF. Agency for Healthcare Research and Quality, Rockville, MD. Available at: http://www.ahrq.gov/research/iomracereport. Accessed May 25, 2010.

2.1-2.3 Supplemental Testing Methodology Information:

Steering Committee: Overall, was the criterion, *Scientific Acceptability of Measure Properties*, met? (*Reliability and Validity must be rated moderate or high*) Yes☐ No☐
Provide rationale based on specific subcriteria:

If the Committee votes No, STOP

3. USABILITY

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (evaluation criteria)

C.1 Intended Actual/Planned Use *(Check all the planned uses for which the measure is intended)*: Public Reporting, Quality Improvement (Internal to the specific organization)

3.1 Current Use *(Check all that apply; for any that are checked, provide the specific program information in the following questions)*: Public Reporting, Quality Improvement (Internal to the specific organization)

3a. Usefulness for Public Reporting: H☐ M☐ L☐ I ☐
(*The measure is meaningful, understandable and useful for public reporting.*)

3a.1. Use in Public Reporting - disclosure of performance results to the public at large *(If used in a public reporting program, provide name of program(s), locations, Web page URL(s)).* If not publicly reported in a national or community program, state the reason AND plans to achieve public reporting, potential reporting programs or commitments, and timeline, e.g., within 3 years of endorsement: [*For Maintenance – If not publicly reported, describe progress made toward achieving disclosure of performance results to the public at large and expected date for public reporting; provide rationale why continued endorsement should be considered.*]
This measure is currently in use in PQRS and has been since 2008.

The PCPI believes that the reporting of participation information is a beneficial first step on a trajectory toward the public reporting of performance results, which is appropriate since the measure has been tested and the reliability of the performance data has been validated. Continued NQF endorsement will facilitate our ongoing progress toward this public reporting objective.

3a.2.Provide a rationale for why the measure performance results are meaningful, understandable, and useful for public reporting. If usefulness was demonstrated (e.g., focus group, cognitive testing), describe the data, method, and results: The PCPI believes that the reporting of participation information is a beneficial first step on a trajectory toward the public reporting of performance results, which is appropriate since the measure has been tested and the reliability of the performance data has been validated. Continued NQF endorsement will facilitate our ongoing progress toward this public reporting objective.

3.2 Use for other Accountability Functions (payment, certification, accreditation). If used in a public accountability program, provide name of program(s), locations, Web page URL(s): This measure may be used in a Maintenance of Certification program.

3b. Usefulness for Quality Improvement: H☐ M☐ L☐ I ☐
(*The measure is meaningful, understandable and useful for quality improvement.*)

3b.1. Use in QI. If used in quality improvement program, provide name of program(s), locations, Web page URL(s):
[*For Maintenance – If not used for QI, indicate the reasons and describe progress toward using performance results for improvement*].
All PCPI measures are suitable for use in quality improvement initiatives and are made freely available on the PCPI website and through the implementation efforts of medical specialty societies and other PCPI members. The PCPI strongly encourages the use

of its measures in QI initiatives and seeks to provide information on such initiatives to PCPI members.

3b.2. Provide rationale for why the measure performance results are meaningful, understandable, and useful for quality improvement. If usefulness was demonstrated *(e.g., QI initiative),* describe the data, method and results:
The PCPI believes that the use of PCPI measures in quality improvement initiatives is a beneficial way to gather scientific data with which to improve physician performance. This is appropriate since the measure has been tested and the reliability of the performance data has been validated. NQF endorsement will facilitate our ongoing progress toward this quality improvement objective.

Overall, to what extent was the criterion, *Usability*, met? H☐ M☐ L☐ I ☐
Provide rationale based on specific subcriteria:

4. FEASIBILITY

Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (evaluation criteria)

4a. Data Generated as a Byproduct of Care Processes: H☐ M☐ L☐ I ☐

4a.1-2 How are the data elements needed to compute measure scores generated? *(Check all that apply).*
Data used in the measure are:
generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition

4b. Electronic Sources: H☐ M☐ L☐ I ☐

4b.1 Are the data elements needed for the measure as specified available electronically *(Elements that are needed to compute measure scores are in defined, computer-readable fields)*: ALL data elements in electronic health records (EHRs)

4b.2 If ALL data elements are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources:

4c. Susceptibility to Inaccuracies, Errors, or Unintended Consequences: H☐ M☐ L☐ I ☐

4c.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measurement identified during testing and/or operational use and strategies to prevent, minimize, or detect. If audited, provide results:
We are not aware of any unintended consequences related to this measurement.

4d. Data Collection Strategy/Implementation: H☐ M☐ L☐ I ☐

A.2 Please check if either of the following apply (*regarding proprietary measures*):
4d.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 *(e.g., fees for use of proprietary measures)*:
This measure was found to be reliable and feasible for implementation.

Overall, to what extent was the criterion, *Feasibility*, met? H☐ M☐ L☐ I ☐
Provide rationale based on specific subcriteria:

OVERALL SUITABILITY FOR ENDORSEMENT

Does the measure meet all the NQF criteria for endorsement? Yes☐ No☐
Rationale:

If the Committee votes No, STOP.
If the Committee votes Yes, the final recommendation is contingent on comparison to related and competing measures.

5. COMPARISON TO RELATED AND 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 before a final recommendation is made.

5.1 If there are related measures *(either same measure focus or target population)* or competing measures *(both the same measure focus and same target population*), list the NQF # and title of all related and/or competing measures:

5a. Harmonization

5a.1 If this measure has 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 Measure(s)

5b.1 If this measure has 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)*:

CONTACT INFORMATION

Co.1 Measure Steward (Intellectual Property Owner): American Medical Association - Physician Consortium for Performance Improvement (AMA-PCPI), 515 N. State St., Chicago, Illinois, 60654

Co.2 Point of Contact: Mark S., Antman, DDS, MBA, Director, Measure Development Operations Performance Improvement, mark.antman@ama-assn.org, 312-464-5056-

Co.3 Measure Developer if different from Measure Steward: American Medical Association - Physician Consortium for Performance Improvement (AMA-PCPI), 515 N. State St., Chicago, Illinois, 60654

Co.4 Point of Contact: Mark S., Antman, DDS, MBA, Director, Measure Development Operations Performance Improvement, mark.antman@ama-assn.org, 312-464-5056-

Co.5 Submitter: Katherine, Ast, MSW, LCSW, katherine.ast@ama-assn.org, 312-464-4920-, American Medical Association - Physician Consortium for Performance Improvement (AMA-PCPI)

Co.6 Additional organizations that sponsored/participated in measure development:
American Association for the Study of Liver Diseases, American Gastroenterological Association Institute

Co.7 Public Contact: Mark S., Antman, DDS, MBA, Director, Measure Development Operations Performance Improvement, mark.antman@ama-assn.org, 312-464-5056-, American Medical Association - Physician Consortium for Performance Improvement (AMA-PCPI)

ADDITIONAL INFORMATION

Workgroup/Expert Panel involved in measure development
Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

Co-Chairs:
John B. Wong, MD (gastroenterology, hepatology, methodology)
John W. Ward, MD (internal medicine)

Work Group Members:
Joel V. Brill, MD (gastroenterology)
Roger Chou, MD (internal medicine, guideline experience)
Richard H. Davis, Jr., PA-C (physician assistant)
Yngve Falck-Ytter, MD, AGAF (gastroenterology/liver/hepatologist)
Troy Fiesinger, MD, FAAFP (family medicine)
Marc G. Ghany, MD, MHSc (guideline experience/hepatology)
Arthur Yu-shin Kim, MD (HIV and HCV co-infection)
Barbara H. McGovern, MD (HIV and HCV co-infection)
Daniel B. Raymond (consumer/patient advocacy group)
Paola Ricci, MD (hepatology/gastroenterology)
Saverio Sava, MD (CHC representative/hepatologist)
Lynn Gardiner Seim, MSN, RN (patient advocacy)
Jessica A. Shepherd, MD, MBA (OB/GYN)
Margaret C. Shuhart, MD, MS (hepatology/gastroenterology)
Amy Hirsch Shumaker, PharmD, BCPS (pharmacy, hepatology, infectious disease)
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)

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.

Ad.2 If adapted, provide title of original measure, NQF # if endorsed, and measure steward. Briefly describe the reasons for adapting the original measure and any work with the original measure steward: n/a

Measure Developer/Steward Updates and Ongoing Maintenance
Ad.3 Year the measure was first released: 2006
Ad.4 Month and Year of most recent revision: 06, 2012
Ad.5 What is your frequency for review/update of this measure? See Ad.9.
Ad.6 When is the next scheduled review/update for this measure? 06, 2012

Ad.7 Copyright statement: Physician Performance Measures (Measures) and related data specifications have been developed by the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® (PCPI™).

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Ad.8 Disclaimers: In an integrated or non-integrated system, physicians should get "credit" if someone orders this test, regardless of who (or when in the case of say vaccination where the hepatologists may not stock vaccines but the primary care docs do). The specifications for this measure agree that a physician would get "credit" for ordering the test, because the specifications require that either the test is ordered or the results documented. So long as the primary care physician orders the test, the PCP would get credit for the measure. And alternatively, a PCP would not meet the measure if a HCV positive patient was referred to a specialist without at least ordering the viral load test - since that is the intent of the measure. The physician´s order would be entered in an EHR and if test results were available they would also be entered in the EHR most likely under a "tests" section.

Ad.9 Additional Information/Comments: Coding/Specifications updates occur annually. The PCPI has a formal measurement review process that stipulates regular (usually on a three-year cycle, when feasible) review of the measures. The process can also be activated if there is a major change in scientific evidence, results from testing or other issues are noted that materially affect the integrity of the measure.

Date of Submission (*MM/DD/YY*): 07/02/2012

Text Description for PCPI eSpecification

Clinical Topic	**Hepatitis C**
Measure Title	**Testing for Chronic Hepatitis C : Confirmation of Hepatitis C Viremia**
Measure #	**PCPI # HEPC-1 / NQF # 0393 / PQRS # 83**
Measure Description	Percentage of patients aged 18 years and older with a diagnosis of hepatitis C seen for an initial evaluation who had HCV RNA testing ordered or previously performed
Measurement Period	Twelve consecutive months
Initial Patient Population	Patient Age: Patients aged 18 years and older before the start of the measurement period Diagnosis Active: Hepatitis C starts before or during encounter during measurement period Encounter: At least two visits with a physician, physician's assistant, or nurse practitioner for an initial evaluation (to include: 1) for new patients and 2) for established/consult patients) during the measurement period
Denominator Statement	All patients aged 18 years and older with a diagnosis of hepatitis C seen for initial evaluation
Numerator Statement	Patients for whom HCV RNA testing was ordered or previously performed
Denominator Exceptions	Documentation of medical reason(s) for not ordering or performing HCV RNA testing Documentation of patient reason(s) for not ordering or performing HCV RNA testing

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Hepatitis C
Data Elements for PCPI eSpecification
Measure #1 : Testing for Chronic Hepatitis C - Confirmation of Hepatitis C Viremia

QDM* Standard Category	QDM* Data Type	Standard Terminology	Constraints	Value Set Name	Value of Data Element	Data Source	Comments/Rationale
Measure Timing	N/A	N/A	TBD by measure implementer	Measurement Start Date			
Measure Timing	N/A	N/A	TBD by measure implementer	Measurement End Date			
Individual Characteristic	Patient Characteristic	HL7	during measurement period	Gender		• Electronic Administrative Claims • Electronic Health Record (EHR)	This data element is collected for the purpose of stratifying results in an effort to highlight disparities.
Individual Characteristic	Patient Characteristic	CDC	during measurement period	Race		• Electronic Health Record (EHR)	This data element is collected for the purpose of stratifying results in an effort to highlight disparities.
Individual Characteristic	Patient Characteristic	CDC	during measurement period	Ethnicity		• Electronic Health Record (EHR)	This data element is collected for the purpose of stratifying results in an effort to highlight disparities.
Individual Characteristic	Patient Characteristic	CDC	during measurement period	Preferred Language		• Electronic Health Record (EHR)	This data element is collected for the purpose of stratifying results in an effort to highlight disparities.
Individual Characteristic	Patient Characteristic	Source of Payment Typology	during measurement period	Payer		• Electronic Health Record (EHR)	This data element is collected for the purpose of stratifying results in an effort to highlight disparities.
Individual Characteristic	Patient Characteristic	LN	starts before the start of measurement period	Date of Birth		• Electronic Administrative Claims • Electronic Health Record (EHR)	
Individual Characteristic	Patient Characteristic	Calculated	before the start of measurement period	Age	≥ 18	• Electronic Administrative Claims • Electronic Health Record (EHR)	Measurement start date minus Date of Birth must be greater than or equal to 18 years.
Condition / Diagnosis / Problem	Diagnosis, Active	I9, I10, SNM	starts before or during encounter during measurement period	Hepatitis C, Acute		• Electronic Administrative Claims • Electronic Health Record (EHR)	
Condition / Diagnosis / Problem	Diagnosis, Active	I9, I10, SNM	starts before or during encounter during measurement period	Hepatitis C, Chronic		• Electronic Administrative Claims • Electronic Health Record (EHR)	
Condition / Diagnosis / Problem	Diagnosis, Active	I9, I10, SNM	starts before or during encounter during measurement period	Hepatitis C, Unspecified		• Electronic Administrative Claims • Electronic Health Record (EHR)	
Encounter	Encounter, Performed	CPT	during measurement period	Encounter - Office & Outpatient Consult	count ≥ 2	• Electronic Administrative Claims • Electronic Health Record (EHR)	For denominator inclusion, patient must be seen for an 'initial evaluation'.
Laboratory Test	Laboratory Test, Order	LN	during measurement period	HCV RNA test, Quantitative		• Electronic Health Record (EHR)	
Laboratory Test	Laboratory Test, Performed	LN	starts before or during measurement period	HCV RNA test, Quantitative		• Electronic Health Record (EHR)	
Laboratory Test	Laboratory Test, Order	LN	during measurement period	HCV RNA test, Qualitative		• Electronic Health Record (EHR)	
Laboratory Test	Laboratory Test, Performed	LN	starts before or during measurement period	HCV RNA test, Qualitative		• Electronic Health Record (EHR)	
Laboratory Test	Laboratory Test, Not Done	SNM	during measurement period	Medical Reason(s)		• Electronic Health Record (EHR)	
Laboratory Test	Laboratory Test, Not Done	SNM	during measurement period	Patient Reason(s)		• Electronic Health Record (EHR)	

*The Quality Data Model (QDM), Version 2.1, was developed by National Quality Forum (NQF).

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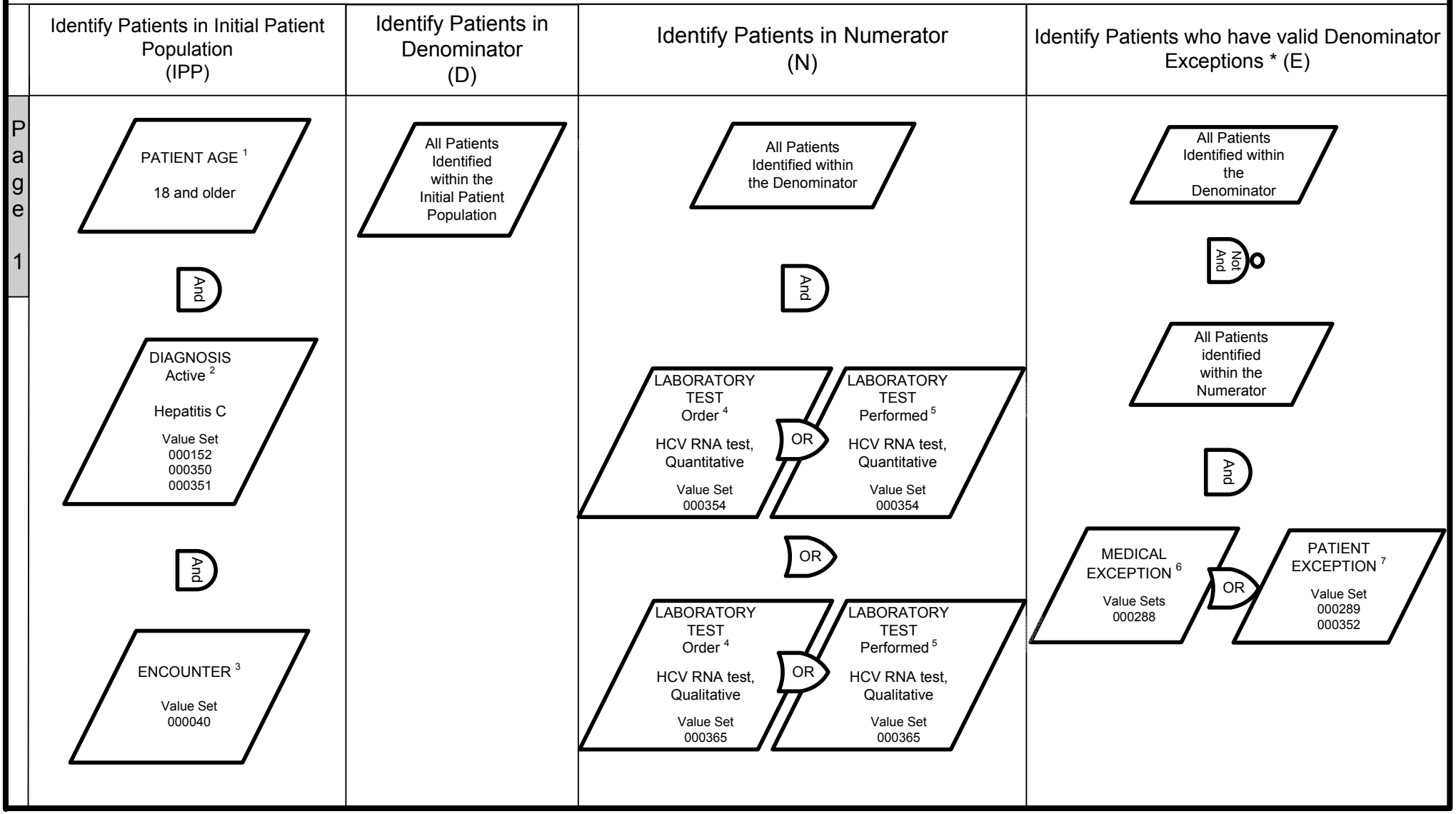
PCPI eSpecification

Measure Logic for Hepatitis C : Testing for Chronic Hepatitis C - Confirmation of Hepatitis C Viremia

Measure Description: Percentage of patients aged 18 years and older with a diagnosis of hepatitis C seen for an initial evaluation who had HCV RNA testing ordered or previously performed

Measurement Period: 12 Consecutive Months

PCPI # HEPC-1 / NQF # 0393 / PQRS # 83



PARAMETER SPECIFICATIONS (Value Sets are found in the Coding Appendices):

IPP: [1] Patient Age: measurement start date minus birth date (value set 000307) ≥ 18 years before the start of measurement period; [2] Diagnosis, Active: starts before or during encounter during measurement period; [3] Encounter: ≥ 2 office visits or outpatient consults during measurement period;

N: [4] Laboratory Test, Order: during measurement period; [5] Laboratory Test, Performed: starts before or during measurement period;

E: [6] Medical Exception: during measurement period; [7] Patient Exception: during measurement period;

*Coded examples are NOT intended to be an exhaustive list. Exceptions will vary for each patient and situation.

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PCPI eSpecification

Measure Logic for Hepatitis C : Testing for Chronic Hepatitis C - Confirmation of Hepatitis C Viremia
Measure Description: Percentage of patients aged 18 years and older with a diagnosis of hepatitis C seen for an initial evaluation who had HCV RNA testing ordered or previously performed
Measurement Period: 12 Consecutive Months
PCPI # HEPC-1 / NQF # 0393 / PQRS # 83

Supplemental Data Elements (SDE)

PATIENT CHARACTERISTIC
Gender
2.16.840.1.113883.1.11.1

PATIENT CHARACTERISTIC
Race
2.16.840.1.114222.4.11.836

PATIENT CHARACTERISTIC
Ethnicity
2.16.840.1.114222.4.11.837

PATIENT CHARACTERISTIC
Preferred Language
2.16.840.1.114222.4.11.831

PATIENT CHARACTERISTIC
Payer
2.16.840.1.113883.221.5

See Data Requirements Table for timing constraints and relationship between data elements.
The Supplemental Data Elements (SDE) are collected for the purpose of stratifying results in an effort to highlight disparities.

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PCPI eSpecification
HEPATITIS C
HEPC-1 : Testing for Chronic Hepatitis C - Confirmation of Hepatitis C Viremia

Value Set ID	Clinical Topic	Topic Indicator	Measure Component	Standard Concept	Standard Category	Taxonomy	Code	Code Descriptor
000307	HEPC	1	IPP	Birth Date	Individual Characteristic	LN	21112-8	Birth date: TmStp:Pt:^Patient:Qn:
000350	HEPC	1	IPP	Hepatitis C, Chronic	Condition / Diagnosis / Problem	I9	070.54	Chronic hepatitis C without hepatic coma
000350	HEPC	1	IPP	Hepatitis C, Chronic	Condition / Diagnosis / Problem	I10	B18.2	Chronic viral hepatitis C
000350	HEPC	1	IPP	Hepatitis C, Chronic	Condition / Diagnosis / Problem	SNM	128302006	Chronic hepatitis C
000152	HEPC	1	IPP	Hepatitis C, Acute	Condition / Diagnosis / Problem	I9	070.51	Acute hepatitis C without mention of hepatic coma
000152	HEPC	1	IPP	Hepatitis C, Acute	Condition / Diagnosis / Problem	I10	B17.10	Acute hepatitis C without hepatic coma (NOS)
000152	HEPC	1	IPP	Hepatitis C, Acute	Condition / Diagnosis / Problem	SNM	235866006	Acute hepatitis C
000351	HEPC	1	IPP	Hepatitis C, Unspecified	Condition / Diagnosis / Problem	I9	070.70	Unspecified viral hepatitis C without hepatic coma
000351	HEPC	1	IPP	Hepatitis C, Unspecified	Condition / Diagnosis / Problem	I10	B19.20	Unspecified viral hepatitis C without hepatic coma
000351	HEPC	1	IPP	Hepatitis C, Unspecified	Condition / Diagnosis / Problem	SNM	442374005	Hepatitis B and hepatitis C
000351	HEPC	1	IPP	Hepatitis C, Unspecified	Condition / Diagnosis / Problem	SNM	50711007	Viral hepatitis C
000040	HEPC	1	IPP	Encounter - Office & Outpatient Consult	Encounter	CPT	99201	
000040	HEPC	1	IPP	Encounter - Office & Outpatient Consult	Encounter	CPT	99202	
000040	HEPC	1	IPP	Encounter - Office & Outpatient Consult	Encounter	CPT	99203	
000040	HEPC	1	IPP	Encounter - Office & Outpatient Consult	Encounter	CPT	99204	
000040	HEPC	1	IPP	Encounter - Office & Outpatient Consult	Encounter	CPT	99205	
000040	HEPC	1	IPP	Encounter - Office & Outpatient Consult	Encounter	CPT	99212	
000040	HEPC	1	IPP	Encounter - Office & Outpatient Consult	Encounter	CPT	99213	
000040	HEPC	1	IPP	Encounter - Office & Outpatient Consult	Encounter	CPT	99214	
000040	HEPC	1	IPP	Encounter - Office & Outpatient Consult	Encounter	CPT	99215	
000040	HEPC	1	IPP	Encounter - Office & Outpatient Consult	Encounter	CPT	99241	
000040	HEPC	1	IPP	Encounter - Office & Outpatient Consult	Encounter	CPT	99242	
000040	HEPC	1	IPP	Encounter - Office & Outpatient Consult	Encounter	CPT	99243	
000040	HEPC	1	IPP	Encounter - Office & Outpatient Consult	Encounter	CPT	99244	
000040	HEPC	1	IPP	Encounter - Office & Outpatient Consult	Encounter	CPT	99245	
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	10676-5	HCV RNA SerPl Amp Prb-aCnc
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	11011-4	HCV RNA SerPl PCR-aCnc
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	20416-4	HCV RNA # SerPl PCR
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	20571-6	HCV RNA # SerPl bDNA
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	29609-5	HCV RNA SerPl bDNA-aCnc
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	34703-9	HCV RNA SerPl PCR DL=500-aCnc
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	34704-7	HCV RNA SerPl PCR DL=50-aCnc
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	38180-6	HCV RNA SerPl PCR-Log IU
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	42617-1	HCV RNA SerPl bDNA-Log IU
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49369-2	HCV RNA # CSF PCR
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49370-0	HCV RNA # Mar PCR
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49371-8	HCV RNA # Tiss PCR
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49376-7	HCV RNA XXX PCR-aCnc

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PCPI eSpecification
HEPATITIS C
HEPC-1 : Testing for Chronic Hepatitis C - Confirmation of Hepatitis C Viremia

Value Set ID	Clinical Topic	Topic Indicator	Measure Component	Standard Concept	Standard Category	Taxonomy	Code	Code Descriptor
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49377-5	HCV RNA CSF PCR-aCnc
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49378-3	HCV RNA Mar PCR-aCnc
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49379-1	HCV RNA Tiss PCR-aCnc
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49380-9	HCV RNA # XXX PCR
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49603-4	HCV RNA CSF PCR-Log IU
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49604-2	HCV RNA Mar PCR-Log IU
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49605-9	HCV RNA XXX PCR-Log IU
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49608-3	HCV RNA Tiss PCR-Log IU
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49758-6	HCV RNA SerPl PCR DL=5-aCnc
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	50023-1	HCV RNA Pnl SerPl PCR
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49372-6	HCV RNA XXX PCR-Log#
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49373-4	HCV RNA CSF PCR-Log#
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49374-2	HCV RNA Mar PCR-Log#
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	49375-9	HCV RNA Tiss PCR-Log#
000354	HEPC	1	N	HCV RNA test, Quantitative	Laboratory Test	LN	47252-2	HCV RNA SerPl PCR-Log#
000365	HEPC	1	N	HCV RNA test, Qualitative	Laboratory Test	LN	11259-9	HCV RNA SerPl Ql PCR
000365	HEPC	1	N	HCV RNA test, Qualitative	Laboratory Test	LN	48576-3	HCV RNA XXX Ql bDNA
000365	HEPC	1	N	HCV RNA test, Qualitative	Laboratory Test	LN	5010-4	HCV RNA Bld Ql PCR
000365	HEPC	1	N	HCV RNA test, Qualitative	Laboratory Test	LN	5011-2	HCV RNA Tiss Ql PCR
000365	HEPC	1	N	HCV RNA test, Qualitative	Laboratory Test	LN	5012-0	HCV RNA XXX Ql PCR
000365	HEPC	1	N	HCV RNA test, Qualitative	Laboratory Test	LN	51655-9	HCV RNA Fld Ql PCR
000288	HEPC	1	E	Medical Exception	Laboratory Test, Not Done	SNM	501000124106	Exclusion from performance measure for medical reason (finding)
000289	HEPC	1	E	Patient Exception	Laboratory Test, Not Done	SNM	511000124109	Exclusion from performance measure for patient reason (finding)
000352	HEPC	1	E	Patient Exception - Lab Test Refused	Laboratory Test, Not Done	SNM	165342003	Patient refused laboratory test (situation)

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PCPI eSpecification
HEPATITIS C
Supplemental Data Elements (SDE) Value Sets

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
HL7	2.16.840.1.113883.1.11.1	Gender	Individual Characteristic	HL7 (2.16.840.1.113883.5.1)	1062-20101110	F	Female
HL7	2.16.840.1.113883.1.11.1	Gender	Individual Characteristic	HL7 (2.16.840.1.113883.5.1)	1062-20101110	M	Male
HL7	2.16.840.1.113883.1.11.1	Gender	Individual Characteristic	HL7 (2.16.840.1.113883.5.1)	1062-20101110	UN	Undifferentiated
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	1	MEDICARE
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	2	MEDICAID
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3	OTHER GOVERNMENT (Federal/State/Local) (excluding Department of Corrections)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	4	DEPARTMENTS OF CORRECTIONS
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	5	PRIVATE HEALTH INSURANCE
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	6	BLUE CROSS/BLUE SHIELD
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	7	MANAGED CARE, UNSPECIFIED(to be used only if one can't distinguish public from private)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	8	NO PAYMENT from an Organization/Agency/Program/Private Payer Listed
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	9	MISCELLANEOUS/OTHER
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	11	Medicare (Managed Care)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	12	Medicare (Non-managed Care)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	19	Medicare Other
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	21	Medicaid (Managed Care)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	22	Medicaid (Non-managed Care Plan)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	23	Medicaid/SCHIP
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	24	Medicaid Applicant
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	25	Medicaid - Out of State
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	29	Medicaid Other
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	31	Department of Defense
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	32	Department of Veterans Affairs
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	33	Indian Health Service or Tribe
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	34	HRSA Program
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	35	Black Lung
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	36	State Government
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	37	Local Government
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	38	Other Government (Federal, State, Local not specified)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	39	Other Federal
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	41	Corrections Federal
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	42	Corrections State
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	43	Corrections Local
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	44	Corrections Unknown Level
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	51	Managed Care (Private)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	52	Private Health Insurance - Indemnity
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	53	Managed Care (private) or private health insurance (indemnity), not otherwise specified
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	54	Organized Delivery System
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	55	Small Employer Purchasing Group
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	59	Other Private Insurance
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	61	BC Managed Care
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	62	BC Indemnity
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	63	BC (Indemnity or Managed Care) - Out of State
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	64	BC (Indemnity or Managed Care) - Unspecified
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	69	BC (Indemnity or Managed Care) - Other
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	71	HMO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	72	PPO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	73	POS
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	79	Other Managed Care, Unknown if public or private
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	81	Self-pay
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	82	No Charge
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	83	Refusal to Pay/Bad Debt
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	84	Hill Burton Free Care
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	85	Research/Donor
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	89	No Payment, Other
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	91	Foreign National
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	92	Other (Non-government)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	93	Disability Insurance
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	94	Long-term Care Insurance
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	95	Worker's Compensation
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	96	Auto Insurance (no fault)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	98	Other specified (includes Hospice - Unspecified plan)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	99	No Typology Code available for payment source

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PCPI eSpecification
HEPATITIS C
Supplemental Data Elements (SDE) Value Sets

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	111	Medicare HMO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	112	Medicare PPO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	113	Medicare POS
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	119	Medicare Managed Care Other
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	121	Medicare FFS
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	122	Drug Benefit
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	123	Medicare Medical Savings Account (MSA)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	129	Medicare Non-managed Care Other
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	211	Medicaid HMO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	212	Medicaid PPO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	213	Medicaid PCCM (Primary Care Case Management)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	219	Medicaid Managed Care Other
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	311	TRICARE (CHAMPUS)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	312	Military Treatment Facility
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	313	Dental --Stand Alone
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	321	Veteran care--Care provided to Veterans
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	322	Non-veteran care
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	331	Indian Health Service - Regular
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	332	Indian Health Service - Contract
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	333	Indian Health Service - Managed Care
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	334	Indian Tribe - Sponsored Coverage
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	341	Title V (MCH Block Grant)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	342	Migrant Health Program
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	343	Ryan White Act
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	349	Other
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	361	State SCHIP program (codes for individual states)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	362	Specific state programs (list/ local code)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	369	State, not otherwise specified (other state)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	371	Local - Managed care
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	372	FFS/Indemnity
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	379	Local, not otherwise specified (other local, county)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	381	Federal, State, Local not specified managed care
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	382	Federal, State, Local not specified - FFS
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	389	Federal, State, Local not specified - Other
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	511	Commercial Managed Care - HMO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	512	Commercial Managed Care - PPO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	513	Commercial Managed Care - POS
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	514	Exclusive Provider Organization
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	515	Gatekeeper PPO (GPPO)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	519	Managed Care, Other (non HMO)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	521	Commercial Indemnity
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	522	Self-insured (ERISA) Administrative Services Only (ASO) plan
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	523	Medicare supplemental policy (as second payer)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	529	Private health insurance—other commercial Indemnity
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	611	BC Managed Care - HMO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	612	BC Managed Care - PPO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	613	BC Managed Care - POS
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	619	BC Managed Care - Other
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	821	Charity
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	822	Professional Courtesy
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	823	Hispanic or Latino
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	951	Worker's Comp HMO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	953	Worker's Comp Fee-for-Service
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	954	Worker's Comp Other Managed Care
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	959	Worker's Comp, Other unspecified
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3111	TRICARE Prime--HMO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3112	TRICARE Extra--PPO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3113	TRICARE Standard - Fee For Service
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3114	TRICARE For Life--Medicare Supplement
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3115	TRICARE Reserve Select
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3116	Uniformed Services Family Health Plan (USFHP) -- HMO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3119	Department of Defense - (other)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3121	Enrolled Prime--HMO

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PCPI eSpecification
HEPATITIS C
Supplemental Data Elements (SDE) Value Sets

Value Set Developer	Value Set OID	Value Set Name	QDM Category	Code System	Code System Version	Code	Descriptor
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3122	Non-enrolled Space Available
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3123	TRICARE For Life (TFL)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3211	Direct Care--Care provided in VA facilities
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3212	Indirect Care--Care provided outside VA facilities
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3221	Civilian Health and Medical Program for the VA (CHAMPVA)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3222	Spina Bifida Health Care Program (SB)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3223	Children of Women Vietnam Veterans (CWVV)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3229	Other non-veteran care
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3711	HMO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3712	PPO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3713	POS
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3811	Federal, State, Local not specified - HMO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3812	Federal, State, Local not specified - PPO
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3813	Federal, State, Local not specified - POS
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	3819	Federal, State, Local not specified - not specified managed care
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	9999	Unavailable / Unknown
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	32121	Fee Basis
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	32122	Foreign Fee/Foreign Medical Program(FMP)
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	32123	Contract Nursing Home/Community Nursing Home
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	32124	State Veterans Home
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	32125	Sharing Agreements
PHDSC	2.16.840.1.113883.221.5	Payer	Individual Characteristic	Source of Payment Typology	4.0	32126	Other Federal Agency
CDC NCHS	2.16.840.1.114222.4.11.836	Race	Individual Characteristic	CDC	1.0	1002-5	American Indian or Alaska Native
CDC NCHS	2.16.840.1.114222.4.11.836	Race	Individual Characteristic	CDC	1.0	2028-9	Asian
CDC NCHS	2.16.840.1.114222.4.11.836	Race	Individual Characteristic	CDC	1.0	2054-5	Black or African American
CDC NCHS	2.16.840.1.114222.4.11.836	Race	Individual Characteristic	CDC	1.0	2076-8	Native Hawaiian or Other Pacific Islander
CDC NCHS	2.16.840.1.114222.4.11.836	Race	Individual Characteristic	CDC	1.0	2106-3	White
CDC NCHS	2.16.840.1.114222.4.11.836	Race	Individual Characteristic	CDC	1.0	2131-1	Other Race
CDC NCHS	2.16.840.1.114222.4.11.837	Ethnicity	Individual Characteristic	CDC	1.0	2135-2	Hispanic or Latino
CDC NCHS	2.16.840.1.114222.4.11.837	Ethnicity	Individual Characteristic	CDC	1.0	2186-5	Not Hispanic or Latino
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	abk	Abkhazian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ace	Achinese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ach	Acoli
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ada	Adangme
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ady	Adyghe; Adygei
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	aar	Afar
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	afh	Afrihili
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	afr	Afrikaans
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	afa	Afro-Asiatic (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ain	Ainu
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	aka	Akan
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	akk	Akkadian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	alb	Albanian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ale	Aleut
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	alg	Algonquian languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tut	Altaic (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	amh	Amharic
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	anp	Angika
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	apa	Apache languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ara	Arabic
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	arg	Aragonese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	arp	Arapaho
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	arw	Arawak
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	arm	Armenian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	rup	Aromanian; Arumanian; Macedo-Romanian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	art	Artificial (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	asm	Assamese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ast	Asturian; Bable; Leonese; Asturleonese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ath	Athapascan languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	aus	Australian languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	map	Austronesian (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ava	Avaric
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ave	Avestan

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CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	awa	Awadhi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	aym	Aymara
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	aze	Azerbaijani
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ban	Balinese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bat	Baltic (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bal	Baluchi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bam	Bambara
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bai	Bamileke languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bad	Banda languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bnt	Bantu (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bas	Basa
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bak	Bashkir
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	baq	Basque
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	btk	Batak languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bej	Beja; Bedawiyet
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bel	Belarusian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bem	Bemba
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ben	Bengali
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ber	Berber (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bho	Bhojpuri
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bih	Bihari
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bik	Bikol
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bin	Bini; Edo
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bis	Bislama
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	byn	Blin; Bilin
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	zbl	Blissymbols; Blissymbolics; Bliss
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nob	Bokmål, Norwegian; Norwegian Bokmål
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bos	Bosnian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bra	Braj
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bre	Breton
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bug	Buginese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bul	Bulgarian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bua	Buriat
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bur	Burmese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cad	Caddo
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cat	Catalan; Valencian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cau	Caucasian (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ceb	Cebuano
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cel	Celtic (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cai	Central American Indian (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	khm	Central Khmer
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	chg	Chagatai
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cmc	Chamic languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cha	Chamorro
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	che	Chechen
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	chr	Cherokee
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	chy	Cheyenne
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	chb	Chibcha
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nya	Chichewa; Chewa; Nyanja
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	chi	Chinese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	chn	Chinook jargon
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	chp	Chipewyan; Dene Suline
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cho	Choctaw
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	chu	Church Slavic; Old Slavonic; Church Slavonic; Old Bulgarian; Old Church Slavonic
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	chk	Chuukese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	chv	Chuvash
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nwc	Classical Newari; Old Newari; Classical Nepal Bhasa
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	syc	Classical Syriac
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cop	Coptic
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cor	Cornish
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cos	Corsican
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cre	Cree
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mus	Creek

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CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	crp	Creoles and pidgins (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cpe	Creoles and pidgins, English based (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cpf	Creoles and pidgins, French-based (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cpp	Creoles and pidgins, Portuguese-based (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	crh	Crimean Tatar; Crimean Turkish
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	hrv	Croatian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cus	Cushitic (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	cze	Czech
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	dak	Dakota
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	dan	Danish
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	dar	Dargwa
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	del	Delaware
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	din	Dinka
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	div	Divehi; Dhivehi; Maldivian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	doi	Dogri
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	dgr	Dogrib
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	dra	Dravidian (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	dua	Duala
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	dum	Dutch, Middle (ca.1050-1350)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	dut	Dutch; Flemish
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	dyu	Dyula
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	dzo	Dzongkha
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	frs	Eastern Frisian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	efi	Efik
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	egy	Egyptian (Ancient)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	eka	Ekajuk
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	elx	Elamite
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	eng	English
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	enm	English, Middle (1100-1500)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ang	English, Old (ca.450-1100)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	myv	Erzya
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	epo	Esperanto
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	est	Estonian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ewe	Ewe
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ewo	Ewondo
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	fan	Fang
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	fat	Fanti
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	fao	Faroese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	fij	Fijian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	fil	Filipino; Pilipino
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	fin	Finnish
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	fiu	Finno-Ugrian (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	fon	Fon
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	fre	French
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	frm	French, Middle (ca.1400-1600)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	fro	French, Old (842-ca.1400)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	fur	Friulian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ful	Fulah
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	gaa	Ga
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	gla	Gaelic; Scottish Gaelic
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	car	Galibi Carib
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	glg	Galician
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lug	Ganda
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	gay	Gayo
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	gba	Gbaya
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	gez	Geez
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	geo	Georgian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ger	German
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	gmh	German, Middle High (ca.1050-1500)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	goh	German, Old High (ca.750-1050)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	gem	Germanic (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	gil	Gilbertese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	gon	Gondi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	gor	Gorontalo

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CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	got	Gothic
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	grb	Grebo
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	grc	Greek, Ancient (to 1453)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	gre	Greek, Modern (1453-)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	grn	Guarani
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	guj	Gujarati
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	gwi	Gwich'in
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	hai	Haida
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	hat	Haitian; Haitian Creole
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	hau	Hausa
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	haw	Hawaiian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	heb	Hebrew
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	her	Herero
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	hil	Hiligaynon
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	him	Himachali
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	hin	Hindi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	hmo	Hiri Motu
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	hit	Hittite
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	hmn	Hmong
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	hun	Hungarian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	hup	Hupa
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	iba	Iban
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ice	Icelandic
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ido	Ido
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ibo	Igbo
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ijo	Ijo languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ilo	Iloko
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	smn	Inari Sami
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	inc	Indic (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ine	Indo-European (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ind	Indonesian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	inh	Ingush
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ina	Interlingua (International Auxiliary Language Association)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ile	Interlingue; Occidental
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	iku	Inuktitut
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ipk	Inupiaq
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ira	Iranian (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	gle	Irish
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mga	Irish, Middle (900-1200)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sga	Irish, Old (to 900)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	iro	Iroquoian languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ita	Italian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	jpn	Japanese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	jav	Javanese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	jrb	Judeo-Arabic
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	jpr	Judeo-Persian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kbd	Kabardian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kab	Kabyle
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kac	Kachin; Jingpho
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kal	Kalaallisut; Greenlandic
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	xal	Kalmyk; Oirat
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kam	Kamba
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kan	Kannada
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kau	Kanuri
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	krc	Karachay-Balkar
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kaa	Kara-Kalpak
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	krl	Karelian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kar	Karen languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kas	Kashmiri
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	csb	Kashubian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kaw	Kawi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kaz	Kazakh
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kha	Khasi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	khi	Khoisan (Other)

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CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kho	Khotanese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kik	Kikuyu; Gikuyu
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kmb	Kimbundu
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kin	Kinyarwanda
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kir	Kirghiz; Kyrgyz
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tlh	Klingon; tlhIngan-Hol
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kom	Komi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kon	Kongo
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kok	Konkani
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kor	Korean
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kos	Kosraean
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kpe	Kpelle
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kro	Kru languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kua	Kuanyama; Kwanyama
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kum	Kumyk
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kur	Kurdish
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kru	Kurukh
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	kut	Kutenai
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lad	Ladino
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lah	Lahnda
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lam	Lamba
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	day	Land Dayak languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lao	Lao
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lat	Latin
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lav	Latvian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lez	Lezghian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lim	Limburgan; Limburger; Limburgish
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lin	Lingala
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lit	Lithuanian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	jbo	Lojban
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nds	Low German; Low Saxon; German, Low; Saxon, Low
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	dsb	Lower Sorbian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	loz	Lozi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lub	Luba-Katanga
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lua	Luba-Lulua
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lui	Luiseno
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	smj	Lule Sami
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lun	Lunda
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	luo	Luo (Kenya and Tanzania)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lus	Lushai
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ltz	Luxembourgish; Letzeburgesch
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mac	Macedonian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mad	Madurese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mag	Magahi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mai	Maithili
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mak	Makasar
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mlg	Malagasy
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	may	Malay
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mal	Malayalam
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mlt	Maltese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mnc	Manchu
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mdr	Mandar
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	man	Mandingo
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mni	Manipuri
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mno	Manobo languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	glv	Manx
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mao	Maori
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	arn	Mapudungun; Mapuche
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mar	Marathi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	chm	Mari
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mah	Marshallese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mwr	Marwari
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mas	Masai
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	myn	Mayan languages

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CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	men	Mende
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mic	Mi'kmaq; Micmac
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	min	Minangkabau
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mwl	Mirandese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	moh	Mohawk
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mdf	Moksha
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mol	Moldavian; Moldovan
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	lol	Mongo
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mon	Mongolian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mkh	Mon-Khmer (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mos	Mossi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mul	Multiple languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mun	Munda languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nah	Nahuatl languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nau	Nauru
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nav	Navajo; Navaho
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nde	Ndebele, North; North Ndebele
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nbl	Ndebele, South; South Ndebele
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ndo	Ndonga
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nap	Neapolitan
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	new	Nepal Bhasa; Newari
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nep	Nepali
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nia	Nias
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nic	Niger-Kordofanian (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ssa	Nilo-Saharan (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	niu	Niuean
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nqo	N'Ko
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	zxx	No linguistic content; Not applicable
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nog	Nogai
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	non	Norse, Old
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nai	North American Indian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	frr	Northern Frisian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sme	Northern Sami
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nor	Norwegian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nno	Norwegian Nynorsk; Nynorsk, Norwegian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nub	Nubian languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nym	Nyamwezi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nyn	Nyankole
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nyo	Nyoro
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nzi	Nzima
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	oci	Occitan (post 1500); Provençal
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	arc	Official Aramaic (700-300 BCE); Imperial Aramaic (700-300 BCE)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	oji	Ojibwa
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ori	Oriya
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	orm	Oromo
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	osa	Osage
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	oss	Ossetian; Ossetic
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	oto	Otomian languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	pal	Pahlavi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	pau	Palauan
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	pli	Pali
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	pam	Pampanga; Kapampangan
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	pag	Pangasinan
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	pan	Panjabi; Punjabi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	pap	Papiamento
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	paa	Papuan (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	nso	Pedi; Sepedi; Northern Sotho
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	per	Persian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	peo	Persian, Old (ca.600-400 B.C.)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	phi	Philippine (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	phn	Phoenician
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	pon	Pohnpeian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	pol	Polish
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	por	Portuguese

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CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	pra	Prakrit languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	pro	Provençal, Old (to 1500)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	pus	Pushto; Pashto
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	que	Quechua
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	raj	Rajasthani
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	rap	Rapanui
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	rar	Rarotongan; Cook Islands Maori
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	qaa-qtz	Reserved for local use
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	roa	Romance (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	rum	Romanian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	roh	Romansh
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	rom	Romany
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	run	Rundi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	rus	Russian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sal	Salishan languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sam	Samaritan Aramaic
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	smi	Sami languages (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	smo	Samoan
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sad	Sandawe
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sag	Sango
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	san	Sanskrit
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sat	Santali
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	srd	Sardinian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sas	Sasak
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sco	Scots
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sel	Selkup
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sem	Semitic (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	srp	Serbian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	srr	Serer
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	shn	Shan
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sna	Shona
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	iii	Sichuan Yi; Nuosu
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	scn	Sicilian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sid	Sidamo
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sgn	Sign Languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	bla	Siksika
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	snd	Sindhi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sin	Sinhala; Sinhalese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sit	Sino-Tibetan (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sio	Siouan languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sms	Skolt Sami
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	den	Slave (Athapascan)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sla	Slavic (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	slo	Slovak
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	slv	Slovenian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sog	Sogdian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	som	Somali
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	son	Songhai languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	snk	Soninke
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	wen	Sorbian languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sot	Sotho, Southern
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sai	South American Indian (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	alt	Southern Altai
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sma	Southern Sami
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	spa	Spanish; Castilian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	srn	Sranan Tongo
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	suk	Sukuma
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sux	Sumerian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sun	Sundanese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sus	Susu
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	swa	Swahili
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ssw	Swati
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	swe	Swedish
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	gsw	Swiss German; Alemannic; Alsatian

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CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	syr	Syriac
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tgl	Tagalog
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tah	Tahitian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tai	Tai (Other)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tgk	Tajik
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tmh	Tamashek
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tam	Tamil
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tat	Tatar
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tel	Telugu
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ter	Tereno
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tet	Tetum
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tha	Thai
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tib	Tibetan
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tig	Tigre
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tir	Tigrinya
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tem	Timne
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tiv	Tiv
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tli	Tlingit
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tpi	Tok Pisin
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tkl	Tokelau
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tog	Tonga (Nyasa)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ton	Tonga (Tonga Islands)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tsi	Tsimshian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tso	Tsonga
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tsn	Tswana
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tum	Tumbuka
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tup	Tupi languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tur	Turkish
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ota	Turkish, Ottoman (1500-1928)
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tuk	Turkmen
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tvl	Tuvalu
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	tyv	Tuvinian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	twi	Twi
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	udm	Udmurt
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	uga	Ugaritic
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	uig	Uighur; Uyghur
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ukr	Ukrainian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	umb	Umbundu
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	mis	Uncoded languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	und	Undetermined
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	hsb	Upper Sorbian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	urd	Urdu
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	uzb	Uzbek
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	vai	Vai
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ven	Venda
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	vie	Vietnamese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	vol	Volapük
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	vot	Votic
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	wak	Wakashan languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	wal	Walamo
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	wln	Walloon
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	war	Waray
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	was	Washo
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	wel	Welsh
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	fry	Western Frisian
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	wol	Wolof
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	xho	Xhosa
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	sah	Yakut
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	yao	Yao
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	yap	Yapese
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	yid	Yiddish
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	yor	Yoruba
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	ypk	Yupik languages
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	znd	Zande languages

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CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	zap	Zapotec
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	zza	Zaza; Dimili; Dimli; Kirdki; Kirmanjki; Zazaki
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	zen	Zenaga
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	zha	Zhuang; Chuang
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	zul	Zulu
CDC	2.16.840.1.114222.4.11.831	Preferred Language	Individual Characteristic	CDC	20080708	zun	Zuni

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