

Q Fever v1 **Definition Factsheet & Technical Brief**

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Definition Purpose: Created by the CDC National Syndromic Surveillance Program (NSSP) for use with ED data as part of the rapid reportables project, which seeks to create queries for all National Notifiable Diseases defined by the National Notifiable Disease Surveillance System (NNDSS). This query is intended to be a version 1 and may be further improved upon by the NSSP community of practice in the future. This query is intended to be narrow and capture visits with specific terms to support greater monitoring and actionable public health data. More complex and/or broader queries may exist that more broadly capture symptoms or travel-based terms.

New or Revised Definition: New Definition

Date Added to ESSENCE: July 2025

Definition Description: Designed to capture emergency department visits associated with Q fever.

Use-Cases for Definition:

Case-finding: Primary

Trend monitoring: Secondary

Early outbreak detection: Tertiary

Emergent Condition: Not Intended as Use Case

Justification: No query definition exists for Q fever. CDC wants to use syndromic data to monitor trends.

Data Source During Development: Emergency Department Visits. Chief Complaint Query Validation dataset (CCQV) in ESSENCE.

Development Methods:

1. The CDC team used the NNDSS case definition of Q fever to identify diagnostic codes (International Classification of Diseases, 9th & 10th Revision (ICD-9-CM, ICD-10-CM), SNOMED Clinical Terms (CT)) and chief complaint free-text for syndrome development.
2. The codes and free text were then categorized as inclusion or exclusion terms. These terms were formatted for querying in ESSENCE.
3. Text analysis was conducted on the initial query to find additional inclusion or exclusion terms.
4. The query was cross-checked internally at NSSP and by CDC subject matter experts as needed.

Validation Methods: This definition is part of the collection of definitions created by CDC NSSP for the rapid reportables project. The rapid reportables project is led by the CDC NSSP team to create definitions for all nationally reportable diseases. These definitions focus on chief complaint text and diagnostic codes of the disease or its causative agents with no mention of symptoms. Select members of the Community of Practice were then asked to review line-level results for their jurisdictions and provide feedback to ensure the intended results of the definitions were met.

Definition Fields and Structure:

The Chief Complaint Discharge Diagnosis (CCDD) parsed field is used to query both the discharge diagnosis codes and chief complaint free text, and exclusions are incorporated as necessary.

- Inclusion based on Q fever chief complaint free text terms:
 - The visit is included if it contains:
 1. A chief complaint related to disease agent – (“c burnetti” or “coxiella”) **OR**
 2. A chief complaint related to disease name – (“Q Fever” or “Query Fever”) **ANDNOT**
 - The visit is excluded if it contains:
 1. A chief complaint that contains Q fever but not strictly Q fever – (“[A-Z]Q Fever”) **OR**
- Inclusion based on ICD-10 discharge diagnosis codes related to Q fever:
 - The visit is included if it contains:
 1. A discharge diagnosis code of Q fever – (A78) **OR**
- Inclusion based on SNOMED discharge diagnosis codes related to Q fever:
 - The visit is included if it contains:
 1. A discharge diagnosis code for Q fever – (186788009) **OR**
 2. A discharge diagnosis code for other Q fever presentations – (409553007 or 409552002 or 409554001 or 233867000 or 409556004 or 95890006 or 233884006 or 409557008) **OR**
 3. A discharge diagnosis code for other conditions caused by Q fever – (32286006 or 409555000)

Detailed Definition Components

Table 1. Inclusion and exclusion terms.

Variable Type	Terms	Description
Inclusions		
Discharge Diagnosis: ICD-10-CM	A78	Q fever
Discharge Diagnosis: SNOMED concepts	186788009	Q fever (disorder)
	409553007	Acute Q fever (disorder)
	409552002	Chronic Q fever (disorder)
	409554001	Q fever hepatitis (disorder)
	233867000	Q fever myocarditis (disorder)
	32286006	Pneumonia in Q fever (disorder)
	409556004	Q fever encephalitis (disorder)
	95890006	Q fever endocarditis (disorder)
	233884006	Q fever pericarditis (disorder)
	409557008	Q fever osteomyelitis (disorder)
	409555000	Meningitis caused by <i>Coxiella burnetii</i> (disorder)
Chief Complaint Terms	“Q fever”	
	“Query Fever”	
	“c burnetti”	
	“coxiella”	
Exclusions		
Chief Complaint Terms	“[A-Z]Q Fever”	

Table 2. ESSENCE syntax for the CCDD parsed field

(,^Q Fever^,OR,^Query Fever^),ANDNOT,(^[A-Z]Q Fever^),OR,^c burnetti^,OR,^coxiella^,OR,^;A78^,OR,^;186788009;,OR,^;409553007;,OR,^;409552002;,OR,^;40955 4001;,OR,^;233867000;,OR,^;32286006;,OR,^;409556004;,OR,^;95890006;,OR,^;233884006;,OR ;,^;409557008;,OR,^;409555000;^
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Use the following URL and click Configuration Options to see the query setup:

[https://essence2.syndromicsurveillance.org/nssp_essence/servlet/TemporalTimeSeriesViewer?datasource=va_hosp&startDate=6Apr2025&medicalGroupingSystem=essencesyndromes&userId=5024&endDate=12Jul2025&percentParam=noPercent&agtTarget=TimeSeries&geographySystem=hospital&detector=nodetector&CCDDParsedFreeText=\(,\(%5EQ%20Fever%5E,OR,%5EQuery%20Fever%5E\),ANDNOT,\(,%5E%5BA-Z%5DQ%20Fever%5E\),OR,%5Ec%20burnetti%5E,OR,%5Ecoxiella%5E,OR,%5E;A78%5E,OR,%5E;186788009;%5E,OR,%5E;409553007;%5E,OR,%5E;409552002;%5E,OR,%5E;409554001;%5E,OR,%5E;233867000;%5E,OR,%5E;32286006;%5E,OR,%5E;409556004;%5E,OR,%5E;95890006;%5E,OR,%5E;233884006;%5E,OR,%5E;409557008;%5E,OR,%5E;409555000;%5E\)%20&timeResolution=weekly](https://essence2.syndromicsurveillance.org/nssp_essence/servlet/TemporalTimeSeriesViewer?datasource=va_hosp&startDate=6Apr2025&medicalGroupingSystem=essencesyndromes&userId=5024&endDate=12Jul2025&percentParam=noPercent&agtTarget=TimeSeries&geographySystem=hospital&detector=nodetector&CCDDParsedFreeText=(,(%5EQ%20Fever%5E,OR,%5EQuery%20Fever%5E),ANDNOT,(,%5E%5BA-Z%5DQ%20Fever%5E),OR,%5Ec%20burnetti%5E,OR,%5Ecoxiella%5E,OR,%5E;A78%5E,OR,%5E;186788009;%5E,OR,%5E;409553007;%5E,OR,%5E;409552002;%5E,OR,%5E;409554001;%5E,OR,%5E;233867000;%5E,OR,%5E;32286006;%5E,OR,%5E;409556004;%5E,OR,%5E;95890006;%5E,OR,%5E;233884006;%5E,OR,%5E;409557008;%5E,OR,%5E;409555000;%5E)%20&timeResolution=weekly)

Syntax Plain Language Description: The definition uses discharge diagnosis codes and free-text chief complaint terms. The definition requires that an emergency department visit contains a reference to the disease by its discharge diagnosis code (in at least one of the following: ICD-10-CM, SNOMED diagnostic codes), or by the disease or pathogen name listed in the chief complaint text. Therefore, the Q fever syndromic surveillance definition includes ICD-10-CM and SNOMED diagnostic codes for Q fever, along with direct mentions of Q fever using "Q fever" or "Query fever" and references to the pathogen *Coxiella burnetti* ("c burnetti", "coxiella") in chief complaint text.