

CAMPYLOBACTER

Background

This case definition was developed by the Armed Forces Health Surveillance Branch (AFHSB) for the purpose of epidemiological surveillance of a condition important to military-associated populations.

Clinical Description

Campylobacteriosis is an infectious disease caused by bacteria of the genus *Campylobacter*; *C. jejuni*, *C. fetus*, and *C. coli* are the three species most commonly associated with human disease. The bacteria are a common cause of gastroenteritis and the third leading cause of foodborne illness in the U.S. Most cases are associated with eating raw or undercooked poultry meat or from cross-contamination of other foods by these items. Clinically, the condition presents with diarrhea, fever, abdominal cramps, and malaise with onset between 1 to 7 days after infection. The illness usually lasts 2 to 5 days and most individuals recover with supportive care such as replacement of fluid and electrolyte losses alone. Antibiotics are generally not indicated except in patients with severe disease. A stool culture or blood test is required to confirm the diagnosis.^{1,2}

Case Definition and Incidence Rules

For surveillance purposes, a case of *Campylobacter* is defined as:

- One record of a reportable medical event (RME) of a *confirmed* case of *Campylobacter*; or
- *One hospitalization or outpatient medical encounter* with any of the defining diagnoses of *Campylobacter* (see ICD9 and ICD10 code lists below) in *any* diagnostic position.

Incidence rules:

For individuals who meet the case definition:

- An individual is considered an incident case only *once every 180 days*.
- The incidence date is considered the date of onset documented in a reportable medical event report, or the first hospitalization or outpatient medical encounter that includes a defining diagnosis of *Campylobacter*.

Exclusions:

- None

¹ Centers for Disease Control and Prevention. *Campylobacter*.

<https://www.cdc.gov/foodsafety/diseases/campylobacter/index.html>

² Armed Forces Health Surveillance Center. Incidence of *Campylobacter* Infections Among Service Members of the Active and Reserve Components of the U.S. Armed Forces and Among Other Beneficiaries of the Military Health System, 2000-2013. *Medical Surveillance Monthly Report (MSMR)*; 2014 December; Vol 21(12): 15-16.



Codes

The following ICD9 and ICD10 codes are included in the case definition:

Condition	ICD-10-CM Codes	ICD-9-CM Codes
<i>Campylobacter</i>	A04.5 (Campylobacter enteritis)	008.43 (Campylobacter)

Development and Revisions

- In February of 2017 the case definition was updated to include ICD10 codes.
- This case definition for *Campylobacter* was developed in December 2014 by the *Medical Surveillance Monthly Report (MSMR)* staff for use in a *MSMR* article on *Campylobacter* infections.² The case definition was developed based on reviews of the ICD9 codes, the scientific literature, and previous AFHSC analyses.

Case Definition and Incidence Rule Rationale

- Case finding for this definition prioritizes reportable medical events over inpatient medical encounters over outpatient medical encounters.
- The case finding criteria for this case definition requires only one hospitalization or outpatient medical encounter to define a case. As such, cases of *Campylobacter* infection identified using this criterion may represent cases based upon presumptive or epidemiologic diagnosis that are never laboratory confirmed. Investigators may want to consider using more specific case finding criteria for outpatient visits.
- Patients recovering from *Campylobacter* infection may shed the bacterium in the stool for two to seven weeks after symptoms resolve.³ To allow for complete resolution of infection and to avoid counting current cases as newly incident, this case definition uses an absolute 180-day incidence rule. Use of this methodology presumes that medical encounters for *Campylobacter* that occur within 180 days of a previous such encounter constitute follow-up care of the previously diagnosed case. Given that most infections are completely resolved within three months, investigators may want to consider using a “gap in care” incidence rule or a shorter incidence rule (e.g., 90 days). Also, the criteria for reporting *Campylobacter* infection through the Armed Forces Reportable Medical Events surveillance system allow clinicians to report cases every 30 days if laboratory confirmed.

Reports

AFHSB reports on *Campylobacter* in the following reports:

- Monthly: AFHSB Reportable Events Monthly Report. Available on the AFHSB website at: <http://www.health.mil/afhsb>; see “Reports and Publications”.
- Weekly: AFHSB Communicable Disease Weekly Report; Summary of Communicable Reportable Events by Service; Available on the AFHSB website at: <http://www.health.mil/afhsb>; see “Reports and Publications”.

³ Zoonotic Campylobacteriosis. The Center for Food Security and Public Safety, Iowa State University, November 2013. See www.cfsph.iastate.edu/Factsheets/pdfs/campylobacteriosis.pdf.



Review

Feb 2017	Case definition reviewed and adopted by the AFHSB Surveillance Methods and Standards (SMS) working group.
Jan 2015	Case definition developed by AFHSC MSMR staff.

Comments

Armed Forces Reportable Medical Events: Campylobacter infection is a reportable medical event in the Armed Forces Reportable Events surveillance system under “Gastrointestinal” disease.

