



TENNESSEE DEPARTMENT OF HEALTH
HEALTHCARE-ASSOCIATED INFECTIONS AND ANTIMICROBIAL RESISTANCE PROGRAM
HAI Surveillance Definitions



GASTROINTESTINAL SYSTEM INFECTION (GI)

GE – Gastroenteritis

DEFINITION: Gastroenteritis must meet at least **ONE** ☐ of the following criteria:

Criterion 1: (Last updated January 1, 2014)

- ☐ Patient has **BOTH** ☐ of the following:
 - ☐ an acute onset of diarrhea (liquid stools for more than 12 hours)
 - ☐ **ONE** ☐ of the following:
 - ☐ with vomiting or without vomiting
 - ☐ with fever ($>38^{\circ}\text{C}$) or without fever ($>38^{\circ}\text{C}$)

AND
- ☐ Patient has no likely noninfectious cause (e.g. diagnostic tests, therapeutic regimen other than antimicrobial agents, acute exacerbation of a chronic condition, or psychological stress)

NOTE: GE Criterion 1 is the only criterion that can be used for *C. difficile* associated gastroenteritis since GE 2 does not include diarrhea as a symptom. (See Reporting Instructions below for additional information.)

Criterion 2: (Last updated January 1, 2014)

- ☐ Patient has **BOTH** ☐ of the following:
 - ☐ does **NOT** have diarrhea

AND

 - ☐ at least **TWO** ☐ of the following signs or symptoms: (* *with no other recognized cause*)
 - ☐ nausea*
 - ☐ vomiting*
 - ☐ abdominal pain*
 - ☐ fever ($>38^{\circ}\text{C}$)
 - ☐ headache*
- AND**
- ☐ Patient has at least **ONE** ☐ of the following:
 - ☐ an enteric pathogen is cultured from **ONE** ☐ of the following:
 - ☐ stool
 - ☐ rectal swab
 - ☐ an enteric pathogen is detected by **ONE** ☐ of the following:
 - ☐ routine microscopy
 - ☐ electron microscopy



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△ an enteric pathogen is detected by **ONE** ☐ of the following:

☐ antigen assay on **ONE** ☐ of the following:

☐ blood

☐ feces

☐ antibody assay on **ONE** ☐ of the following:

☐ blood

☐ feces

△ evidence of an enteric pathogen is detected by cytopathic changes in tissue culture (toxin assay)

△ choose **ONE** ☐ of the following:

☐ diagnostic single antibody titer (IgM) for pathogen

☐ 4-fold increase in paired sera (IgG) for pathogen

REPORTING INSTRUCTIONS: (Last updated January 1, 2014)

- HAI cases of CDI (i.e., *C. difficile* pathogen identified with a positive toxin result, including toxin producing gene [PCR]) that meet criteria for a healthcare-associated infection should be reported as gastroenteritis (GI-GE criterion 1) or gastrointestinal tract (GI-GIT) infections, whichever is appropriate. Report the pathogen as *C. difficile*. If the patient develops both GI-GE and GI-GIT CDI, report only GI-GIT using the date of Event as that of GI-GE CDI.
- If using GI-GE criterion #1 to meet *C. difficile* associated gastroenteritis; in addition to having liquid stools, patient must have a *C. difficile* pathogen identified with a positive toxin result, including toxin producing gene [PCR] that was tested on a loose/liquid stool specimen (specimen must conform to the shape of the specimen container). See MDRO and CDI protocol (Chapter 12) for additional reporting information.
- If GE criterion #1 is met on day 1 or day 2 of admission, indicating a present on admission gastroenteritis, but a *C. difficile* toxin test was not sent on day 1 or day 2, and patient continues to have **unresolved diarrhea**, a subsequent CDI toxin positive test result on a liquid stool specimen is not considered a new infection with *C. difficile*.
- CDI LabID Event categorizations (e.g., recurrent CDI assay, incident CDI assay, healthcare facility-onset, community-onset, community-onset healthcare facility-associated) do not apply to HAIs, including *C. difficile* associated gastroenteritis. Therefore, a new HAI must be considered if a patients' diarrhea resolves and then reoccurs, and the patient has a new CDI-positive laboratory assay. This includes new episodes during the same admission.



GASTROINTESTINAL SYSTEM INFECTION (GI)

GIT – Gastrointestinal Tract Infection (Esophagus, Stomach, Small and Large Bowel, and Rectum, Excluding Gastroenteritis and Appendicitis)

DEFINITION: Gastrointestinal tract infections, excluding gastroenteritis and appendicitis, must meet at least **ONE** ☐ of the following criteria:

☐ Criterion 1: (Last updated January 1, 2013)

- Patient has **ONE** ☐ of the following:

- ☐ an abscess seen during **ONE** ☐ of the following:

- ☐ invasive procedure
 - ☐ histopathologic examination

- ☐ other evidence of infection seen during **ONE** ☐ of the following:

- ☐ invasive procedure
 - ☐ histopathologic examination

☐ Criterion 2: (Last updated January 1, 2014)

- Patient has at least **TWO** ☐ of the following signs or symptoms compatible with infection of the organ or tissue involved: (* **with no other recognized cause**)

- ☐ fever (>38°C)

- ☐ nausea*

- ☐ vomiting*

- ☐ abdominal pain* or tenderness*

- ☐ diarrhea*

AND

- Patient has at least **ONE** ☐ of the following:

- ☐ organisms cultured from **ONE** ☐ of the following:

- ☐ drainage obtained from **ONE** ☐ of the following:

- ☐ invasive procedure
 - ☐ endoscopy
 - ☐ aseptically-placed drain

- ☐ tissue obtained from **ONE** ☐ of the following:

- ☐ invasive procedure
 - ☐ endoscopy
 - ☐ aseptically-placed drain



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△ **ONE** □ of the following:

□ organisms seen on Gram's stain obtained from **ONE** ○ of the following:

- invasive procedure
- endoscopy
- aseptically placed drain

□ organisms seen on KOH stain obtained from **ONE** ○ of the following:

- invasive procedure
- endoscopy
- aseptically placed drain

□ multinucleated giant cells seen on microscopic examination of drainage or tissue obtained from **ONE** ○ of the following:

- invasive procedure
- endoscopy
- aseptically placed drain

△ organisms cultured from blood

△ evidence of pathologic findings on imaging test

△ evidence of pathologic findings on endoscopic examination (e.g. *Candida esophagitis*, *proctitis*, or *toxic megacolon*)

REPORTING INSTRUCTIONS: (Last updated January 1, 2014)

- HAI cases of CDI (i.e., *C. difficile* pathogen identified with a positive toxin result, including toxin producing gene [PCR]) that meet criteria for a healthcare-associated infection should be reported as gastroenteritis (GI-GE criterion 1) or gastrointestinal tract (GI-GIT) infections, whichever is appropriate. Report the pathogen as *C. difficile*. If the patient develops both GI-GE and GI-GIT CDI, report only GI-GIT using the date of Event as that of GI-GE CDI.

HEP – Hepatitis

DEFINITION: Hepatitis must meet the following criterion:

□ **Criterion:** (Last updated January 1, 2014)

○ Patient has at least **TWO** △ of the following signs or symptoms: (* *with no other recognized cause*)

△ fever (>38°C)

△ anorexia*



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- △ nausea*
- △ vomiting*
- △ abdominal pain*
- △ jaundice*
- △ history of transfusion within the previous 3 months*

AND

- Patient has at least **ONE** △ of the following:

- △ positive laboratory test for **ONE** □ of the following:

- hepatitis A
- hepatitis B
- hepatitis C
- delta hepatitis and duration of hospital stay consistent with healthcare acquisition

- △ abnormal liver function tests (e.g. elevated ALT/ AST, bilirubin)

- △ cytomegalovirus (CMV) detected in urine or oropharyngeal secretions

REPORTING INSTRUCTIONS: (Last updated June 2008)

- Do not report hepatitis or jaundice of noninfectious origin (alpha-1 antitrypsin deficiency, etc.)
- Do not report hepatitis or jaundice that result from exposure to hepatotoxins (alcoholic or acetaminophen-induced hepatitis, etc.)
- Do not report hepatitis or jaundice that result from biliary obstruction (cholecystitis)

**IAB – Intraabdominal Infection, Not Specified Elsewhere
(Including Gallbladder, Bile Ducts, Liver [Excluding Viral Hepatitis],
Spleen, Pancreas, Peritoneum, Subphrenic or Subdiaphragmatic Space,
or Other Intraabdominal Tissue or Area Not Specified Elsewhere)**

DEFINITION: Intraabdominal infections must meet at least **ONE** □ of the following criteria:

□ Criterion 1: (Last updated January 1, 2014)

- Patient has organisms cultured from at least **ONE** △ of the following obtained during an invasive procedure:
 - △ abscess from intraabdominal space
 - △ purulent material from intraabdominal space

□ Criterion 2: (Last updated January 1, 2013)

- Patient has **ONE** △ of the following:
 - △ an abscess seen during **ONE** □ of the following:



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- ☐ invasive procedure
- ☐ histopathologic examination

△ other evidence of intraabdominal infection seen during **ONE** ☐ of the following:

- ☐ invasive procedure
- ☐ histopathologic examination

□ Criterion 3: *(Last updated January 1, 2014)*

○ Patient has **BOTH** △ of the following:

△ at least **TWO** ☐ of the following signs or symptoms: (** with no other recognized cause*)

- ☐ fever (>38°C)
- ☐ nausea*
- ☐ vomiting*
- ☐ abdominal pain*
- ☐ jaundice*

△ at least **ONE** ☐ of the following:

☐ organisms cultured from drainage from aseptically placed drain (e.g. closed suction drainage system, open drain, T-tube drain, CT-guided drainage)

☐ organisms seen on **ONE** ○ of the following:

○ Gram's stain of drainage obtained during a **ONE** △ of the following:

- △ invasive procedure
- △ an aseptically-placed drain

○ Gram stain of tissue obtained during a **ONE** △ of the following:

- △ invasive procedure
- △ an aseptically-placed drain

☐ **BOTH** ○ of the following:

- organisms cultured from blood
- imaging test evidence of infection (e.g., abnormal findings on ultrasound, CT scan, MRI, or radiolabel scans [gallium, technetium, etc.] or on abdominal x-ray)

REPORTING INSTRUCTIONS: *(Last updated June, 2008)*

- Do not report pancreatitis (an inflammatory syndrome characterized by abdominal pain, nausea, and vomiting associated with high serum levels of pancreatic enzymes) unless it is determined to be infectious in origin.



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NEC – Necrotizing Enterocolitis

(Last updated January 1, 2013)

DEFINITION: Necrotizing enterocolitis in infants (≤ 1 year of age) must meet the following criterion:

Criterion 1: *(Last updated January 1, 2014)*

Infant has **BOTH** Δ of the following:

Δ at least **ONE** \square of the following clinical findings:

- \square bilious aspirate (*not as a result of transpyloric placement of nasogastric tube*)
- \square vomiting
- \square abdominal distention

\square **ONE** \circ of the following:

- \circ occult blood in stool (with no rectal fissure)
- \circ gross blood in stool (with no rectal fissure)

Δ at least **ONE** \square of the following image testing findings:

- \square pneumatosis intestinalis
- \square portal vein gas (hepatobiliary gas)
- \square pneumoperitoneum

Criterion 2: *(Last updated January 1, 2014)*

Surgical NEC: Infant has at least **ONE** Δ of the following surgical findings:

Δ surgical evidence of extensive bowel necrosis (>2 cm of bowel affected)

Δ surgical evidence of pneumatosis intestinalis with **ONE** \square of the following:

- \square with intestinal perforation
- \square without intestinal perforation