

Infection Surveillance Definition Worksheet

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|-------|-------------------|---------------------------|---------------|----------|
| Date | MRN | Last Name, First Name, MI | Date of Birth | Location |
| M / F | MDRO | PMH | Provider | |
| Admit | Hospitalized | Narrative | Notes | |
| HAI | Type of Infection | | | |
| Onset | Culture Result | | | |

| Type of Infection (✓) | Infection/Site | Criteria (symptoms must be new or increased) | Conditions/Comments |
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| Respiratory Tract | <input type="checkbox"/> Common cold syndrome <input type="checkbox"/> Or pharyngitis | MUST HAVE at least 2 of the following: <input type="checkbox"/> Runny nose or sneezing <input type="checkbox"/> Stuffy nose (nasal congestion) <input type="checkbox"/> Sore throat or hoarseness or difficulty swallowing <input type="checkbox"/> Dry cough <input type="checkbox"/> Swollen or tender glands in neck (cervical lymphadenopathy) | Fever may or may not be present. Symptoms must be new and not attributable to allergies. |
| | <input type="checkbox"/> Influenza-like illness Did resident receive influenza vaccine for this flu season? <input type="checkbox"/> YES <input type="checkbox"/> NO | MUST HAVE: <input type="checkbox"/> Fever ($\geq 100^{\circ}\text{F}$ taken at any site) AND MUST HAVE at least 3 of the following: <input type="checkbox"/> Chills <input type="checkbox"/> Malaise or loss of appetite <input type="checkbox"/> Headache or eye pain <input type="checkbox"/> Sore throat <input type="checkbox"/> Myalgia/body aches <input type="checkbox"/> New or increased dry cough | If criteria for influenza-like illness and another upper or lower RTI are met at the same time, only the diagnosis of influenza-like illness should be recorded. Because of increasing uncertainty surrounding the timing of the start of influenza season, the peak of influenza activity, and the length of the season, "seasonality" is no longer a criterion to define influenza-like illness. |
| | <input type="checkbox"/> Pneumonia | MUST HAVE: <input type="checkbox"/> Chest x-ray demonstrating pneumonia, probable pneumonia or new infiltrate. AND MUST HAVE at least 1 of the following: <input type="checkbox"/> New or increased cough <input type="checkbox"/> O2 sat $<94\%$ or $< 3\%$ baseline <input type="checkbox"/> Pleuritic chest pain <input type="checkbox"/> Fever (<i>See Constitutional Criteria: Table 2</i>) <input type="checkbox"/> New or increased sputum production <input type="checkbox"/> New or changed lung exam abnormalities <input type="checkbox"/> Respiratory rate ($>25/\text{minute}$) AND MUST HAVE at least 1 of the constitutional criteria (<i>See Constitutional Criteria: Table 2</i>) | For both pneumonia and lower RTI, the presence of underlying conditions that could mimic the presentation of a RTI (eg, congestive heart failure or interstitial lung diseases) should be excluded by a review of clinical records and an assessment of presenting symptoms and signs. |
| | <input type="checkbox"/> Lower respiratory tract infection (bronchitis, tracheo-bronchitis) | MUST HAVE at least 3 of the following: <input type="checkbox"/> CXR not performed or negative results for pneumonia or new infiltrate <input type="checkbox"/> At least 2 of respiratory subcriteria in pneumonia (<i>above</i>) <input type="checkbox"/> At least 1 of the constitutional criteria (<i>See Constitutional Criteria: Table 2</i>) | NOTE: This diagnosis can be made only if NO Chest x-ray was done OR if a CXR fails to confirm diagnosis of pneumonia. For both pneumonia and lower RTI, the presence of underlying conditions that could mimic the presentation of a RTI (e.g. congestive heart failure or interstitial lung diseases) should be excluded by a review of clinical records and assessment of s/sx |

Urinary Tract Infection

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| <p><input type="checkbox"/> UTI in resident WITHOUT catheter (any previous catheter must have been D/C'd at least 48 hrs before symptoms began)</p> | <p>MUST HAVE BOTH Criteria 1 and 2: Criteria 1. MUST HAVE at least 1 of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Acute dysuria or acute pain, swelling, or tenderness of the testes, epididymis, or prostate <input type="checkbox"/> Fever or leukocytosis <i>(See Constitutional Criteria: Table 2)</i> <p>AND at least 1 of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Acute costovertebral angle pain or tenderness <input type="checkbox"/> Suprapubic pain <input type="checkbox"/> Gross hematuria <input type="checkbox"/> New or marked increase in incontinence <input type="checkbox"/> New or marked increase in urgency <input type="checkbox"/> New or marked increase in frequency <p>OR <i>In the absence of fever or leukocytosis,</i> 2 or more of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Suprapubic pain <input type="checkbox"/> Gross hematuria <input type="checkbox"/> New or marked increase in incontinence <input type="checkbox"/> New or marked increase in urgency <input type="checkbox"/> New or marked increase in frequency <p>AND Criteria 2. MUST HAVE 1 of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> At least 10⁵ cfu/mL of no more than 2 species of microorganisms in a voided urine sample <input type="checkbox"/> At least 10² cfu/mL of any number of organisms in a specimen collected by in-and-out catheter | <p>UTI should be diagnosed when there are localizing genitourinary signs and symptoms and a positive urine culture result. A diagnosis of UTI can be made without localizing symptoms if a blood culture isolate is the same as the organism isolated from the urine and there is no alternate site of infection. In the absence of a clear alternate source of infection, fever or rigors with a positive urine culture result in the non-catheterized resident or acute confusion in the catheterized resident will often be treated as UTI. However, evidence suggests that most of these episodes are likely not due to infection of a urinary source.</p> <p>Urine specimens for culture should be processed as soon as possible, preferably within 1–2 h. If urine specimens cannot be processed within 30 min of collection, they should be refrigerated. Refrigerated specimens should be cultured within 24 h.</p> |
| <p><input type="checkbox"/> UTI in resident WITH catheter (if symptoms begin within 48 hrs after discontinuing a catheter, count it as related to catheter)</p> | <p>MUST HAVE BOTH Criteria 1 and 2: Criteria 1. MUST HAVE at least 1 of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Fever, rigors, or new-onset hypotension, with no alternate site of infection <input type="checkbox"/> Either acute change in mental status or acute functional decline, with no alternate site of infection <input type="checkbox"/> New-onset suprapubic pain or costovertebral angle pain or tenderness <input type="checkbox"/> Purulent discharge from around the catheter or acute pain, swelling, or tenderness of the testes, epididymis, or prostate <p>AND Criteria 2. MUST HAVE:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Urinary catheter specimen culture with at least 10⁵ cfu/mL of any organism(s) | <p>UTI should be diagnosed when there are localizing genitourinary signs and symptoms and a positive urine culture result. A diagnosis of UTI can be made without localizing symptoms if a blood culture isolate is the same as the organism isolated from the urine and there is no alternate site of infection. In the absence of a clear alternate source of infection, fever or rigors with a positive urine culture result in the non-catheterized resident or acute confusion in the catheterized resident will often be treated as UTI. However, evidence suggests that most of these episodes are likely not due to infection of a urinary source.</p> <p>Recent catheter trauma, catheter obstruction, or new-onset hematuria are useful localizing signs that are consistent with UTI but are not necessary for diagnosis.</p> <p>Urinary catheter specimens for culture should be collected following replacement of the catheter (if current catheter in place for >14 days).</p> |

GastroIntestinal

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| <input type="checkbox"/> Gastro-enteritis | <p>MUST HAVE at least 1 of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Diarrhea: 3 or more liquid or watery stools above what is normal for the resident within a 24-hour period <input type="checkbox"/> Vomiting: 2 or more episodes in a 24-hour period <p>OR BOTH of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> A stool specimen testing positive for a pathogen (eg, <i>Salmonella</i>, <i>Shigella</i>, <i>Escherichia coli</i> O157 : H7, <i>Campylobacter</i> species, rotavirus) <input type="checkbox"/> At least one of the following: <ul style="list-style-type: none"> <input type="checkbox"/> Nausea <input type="checkbox"/> Vomiting <input type="checkbox"/> Abdominal pain or tenderness <input type="checkbox"/> Diarrhea | <p>Care must be taken to exclude noninfectious causes of symptoms. For instance, new medications may cause diarrhea, nausea, or vomiting; initiation of new enteral feeding may be associated with diarrhea; and nausea or vomiting may be associated with gallbladder disease.</p> <p>Presence of new GI symptoms in a single resident may prompt enhanced surveillance for additional cases. In the presence of an outbreak, stool specimens should be sent to confirm the presence of norovirus or other pathogens (e.g., rotavirus or <i>E. coli</i> O157 : H7)</p> |
| <input type="checkbox"/> Norovirus Gastro-enteritis | <p>MUST HAVE BOTH Criteria 1 and 2:</p> <p>Criteria 1. MUST HAVE at least 1 of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Diarrhea: 3 or more liquid or watery stools above what is normal for the resident within a 24-hour period <input type="checkbox"/> Vomiting: 2 or more episodes in a 24-hour period <p>AND</p> <p>Criteria 2. MUST HAVE:</p> <ul style="list-style-type: none"> <input type="checkbox"/> A stool specimen for which norovirus is positively detected by electron microscopy, enzyme immunoassay, or molecular diagnostic testing such as polymerase chain reaction (PCR) | <p>In the absence of laboratory confirmation, an outbreak (2 or more cases occurring in a long-term care facility [LTCF]) of acute gastroenteritis due to norovirus infection may be assumed to be present if all of the following criteria are present (“Kaplan Criteria”): (a) vomiting in more than half of affected persons; (b) a mean (or median) incubation period of 24-48 hours; (c) a mean (or median) duration of illness of 12-60 hours; and (d) no bacterial pathogen is identified in stool culture.</p> |
| <input type="checkbox"/> Clostridium difficile infection | <p>MUST HAVE BOTH Criteria 1 and 2:</p> <p>Criteria 1. MUST HAVE at least 1 of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Diarrhea: 3 or more liquid or watery stools above what is normal for the resident within a 24-hour period <input type="checkbox"/> Presence of toxic megacolon (abnormal dilatation of the large bowel, documented radiologically) <p>AND</p> <p>Criteria 2. MUST HAVE at least 1 of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> A stool sample yields a positive laboratory test result for <i>C. difficile</i> toxin A or B, or a toxin producing <i>C. difficile</i> organism is identified from a stool sample culture or by a molecular diagnostic test such as PCR <input type="checkbox"/> Pseudomembranous colitis is identified during endoscopic examination or surgery or in histopathologic examination of a biopsy specimen | <p>A “primary episode” of <i>C. difficile</i> infection is defined as one that has occurred without any previous history of <i>C. difficile</i> infection or that has occurred >8weeks after the onset of a previous episode of <i>C. difficile</i> infection.</p> <p>A “recurrent episode” of <i>C. difficile</i> infection is defined as an episode of <i>C. difficile</i> infection that occurs 8 weeks or sooner after the onset of a previous episode, provided that the symptoms from the earlier (previous) episode have resolved. Individuals previously infected with <i>C. difficile</i> may continue to remain colonized even after symptoms resolve. In the setting of an outbreak of GI infection, individuals could have positive test results for presence of <i>C. difficile</i> toxin because of ongoing colonization and also be co-infected with another pathogen. It is important that other surveillance criteria be used to differentiate infections in this situation.</p> |

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| <p style="writing-mode: vertical-rl; transform: rotate(180deg);">NOTE: Assure that personnel wear gloves for contact with rash or skin lesions and perform hand hygiene after glove removal</p> <p style="text-align: center;"><input type="checkbox"/> Skin</p> | <input type="checkbox"/> Cellulitis/soft tissue/wound | <p>MUST HAVE at least 1 of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Pus present at a wound, skin, or soft tissue site <input type="checkbox"/> New or increasing presence of at least 4 of the following: <ul style="list-style-type: none"> <input type="checkbox"/> Heat at the affected site <input type="checkbox"/> Redness at the affected site <input type="checkbox"/> Swelling at the affected site <input type="checkbox"/> Tenderness of pain at the affected site <input type="checkbox"/> Serous drainage at the affected site <p>AND</p> <ul style="list-style-type: none"> <input type="checkbox"/> At least 1 of the constitutional criteria (See <i>Constitutional Criteria: Table 2</i>) | <p>Presence of organisms cultured from the surface (eg, superficial swab sample) of a wound is not sufficient evidence that the wound is infected. More than 1 resident with streptococcal skin infection from the same serogroup (eg, A, B, C, G) in a long-term care facility (LTCF) may indicate an outbreak.</p> |
| | <input type="checkbox"/> Scabies | <p>MUST HAVE BOTH Criteria 1 and 2:</p> <p>Criteria 1. MUST HAVE:</p> <ul style="list-style-type: none"> <input type="checkbox"/> A maculopapular and/or itching <p>AND</p> <p>Criteria 2. MUST HAVE at least one of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Physician diagnosis <input type="checkbox"/> Laboratory confirmation (scraping or biopsy) <input type="checkbox"/> Epidemiologic linkage to a case of scabies with laboratory confirmation | <p>An epidemiologic linkage to a case can be considered if there is evidence of geographic proximity in the facility, temporal relationship to the onset of symptoms, or evidence of common source of exposure (ie, shared caregiver). Care must be taken to rule out rashes due to skin irritation, allergic reactions, eczema, and other noninfectious skin conditions.</p> |

Table 2: Definitions for Constitutional Criteria in Residents of Long-Term Care Facilities (LTCFs)

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| Fever | <ol style="list-style-type: none"> 1. Single oral temperature >37.8 °C (100°F) <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 2. Repeated oral temperatures >37.2 °C (99°F) <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 3. Single temperature >1.1 °C (2°F) over baseline from any site (oral, tympanic, axillary) |
| Leukocytosis | <ol style="list-style-type: none"> 1. Neutrophilia (>14,000 leukocytes/mm³) <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 2. Left shift (>6% bands or ≥1,500 bands/mm³) |
| Acute change in mental status from baseline | <p>All criteria must be present:</p> <ol style="list-style-type: none"> 1. Acute onset (Evidence of acute change in resident’s mental status from baseline) 2. Fluctuating course (Behavior fluctuating: eg, coming and going or changing in severity during the assessment) 3. Inattention (Resident has difficulty focusing attention: eg, unable to keep track of discussion or easily distracted) 4. Either disorganized thinking or altered level of consciousness <ol style="list-style-type: none"> a. Disorganized thinking (Resident’s thinking is incoherent: eg, rambling conversation, unclear flow of ideas, unpredictable switches in subject) <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> b. Altered level of consciousness (Resident’s level of consciousness is described as different from baseline: eg, hyperalert, sleepy, drowsy, difficult to arouse, nonresponsive) |
| Acute functional decline | <ol style="list-style-type: none"> 1. A new 3-point increase in total activities of daily living (ADL) score (range, 0-28) from baseline, based on the following 7 ADL items, each scored from 0 (independent) to 4 (total dependence) Bed mobility, transfer, locomotion within LTCF, dressing, toilet use, personal hygiene, eating |



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