## Policy

Antibiotic treatment will only be considered if the suspected infection meets the McGeer definitions of and the pathology is strongly suggesting that the infection is of a bacterial nature.

## Purpose

# To define and identify infections

# To adopt the McGeer (Revised 2012) definitions of infection as standardized definitions of infection for use in surveillance in the Health Center

# **Procedure**

1. The definitions focus on infections for which surveillance is expected to be useful
2. The following conditions apply to all of the definitions:
   1. All symptoms must be new or acutely worse
   2. Many residents have chronic symptoms, such as cough or urinary urgency, which are not associated with infection
   3. Noninfectious causes of signs and symptoms should always be considered before a diagnosis of infection is made
   4. Identification of infection should not be based on a single piece of evidence
   5. Microbiologic and radiologic findings should be used only to confirm clinical evidence of infection
   6. Physician diagnosis should be accompanied by compatible signs and symptoms of infection
3. Definitions of infections

# **RESPIRATORY TRACT INFECTIONS**

COMMON COLD SYNDROMES/PHARYNGITIS:

Criteria: Resident must have **two** new signs or symptoms:

* Runny nose or sneezing
* Stuffy nose (congestion)
* Sore throat, hoarseness, or difficulty swallowing
* Dry cough
* Swollen or tender glands in the neck

INFLUENZA-LIKE ILLNESS: Fever and **three** of the following during influenza season:

* Chills
* New headache or eye pain
* Myalgias/body aches
* Malaise or loss of appetite
* Sore throat
* New or increased cough

PNEUMONIA:

Criteria: Chest x-ray demonstrating pneumonia, probable pneumonia, or an infiltrate and **have at least 1** of the following**:**

* New or increased cough
* O2 sat <94% **or** <3% baseline
* Pleuritic chest pain
* Fever
* New or increased sputum production
* New or changed lung abnormalities
* Respiratory rate >25/min

AND

* Must have ≥1 Constitutional Criteria

BRONCHITIS OR TRACHEOBRONCHITIS:

Criteria: A negative chest x-ray (or no chest x-ray done) and have at least 2 of the respiratory subcriteria above in pneumonia

AND

* Must have at least 1 Constitutional Criteria

**Urinary tract infections**

uti without a catheter (both criteria 1 and 2 must be present)

Criteria 1

At least one of the following sign or symptom criteria:

* Acute dysuria or acute pain, swelling, or tenderness of the testes, epididymis or prostate
* Fever or leukocytosis (see Constitutional Criteria Table**) and at least one of the** following localizing urinary tract subcriteria**:**
  + Acute flank pain or tenderness
  + Suprapubic pain
  + Gross hematuria
  + New or marked increase in incontinence
  + New or marked increase in urgency
  + New or marked increase in frequency
* In the absence of fever or leukocytosis**, then 2 or more** of the following subcriteria.
  + Suprapubic pain
  + Gross hematuria
  + New or marked increase in incontinence
  + New or marked increase in urgency
  + New or marked increase in frequency

AND

Criteria 2

At least one of the following:

* At least 100.000 cfu/mL (cfu: colony forming unit) of no more than 2 species of microorganisms in a voided urine sample.
* At least 100 cfu/mL of any number of organisms in a specimen collected by straight catheterization.

UTI in resident with a catheter (if symptoms begin within 48 hours after discontinuing a catheter, consider it related to the catheter)

At least 1 of the following subcriteria:

* Fever
* Rigors or new onset hypotension, with no alternate site of infection
* Either acute change in mental status or acute functional decline, with no literate site of infection
* New onset suprapubic pain or flank pain or tenderness
* Purulent discharge from around the catheter or acute pain, swelling or tenderness of the testes, epididymis or prostate

AND

Must have:

* Urinary catheter specimen culture with at least 100,000 cfu/mL of any organism(s)

## GASTROINTESTINAL INFECTIONS

GASTROENTERITIES

At least one criteria must be met:

* Diarrhea: 3 or more liquid or watery stools above what is normal for the resident within a 24 hour period
* Vomiting: 2 or more episodes in a 24 hour period

OR

Both of following subcriteria:

* A stool specimen testing positive for a pathogen (eg, *Salmonella, Shigella, Escherichia coli* O157 : H7, *Campylobacter* species, rotavirus)

At least one of the subcriteria

Nausea

Vomiting

Abdominal pain or tenderness

Diarrhea

Norovirus Gastroenteritis

At least one criteria must be met:

* Diarrhea: 3 or more liquid or watery stools above what is normal for the resident within a 24 hour period
* Vomiting: 2 or more episodes in a 24 hour period

AND

Must have

* A stool specimen for which norovirus is positively detected by electron microscopy, enzyme immunoassay, or molecular diagnostic testing such as polymerase chain reaction (PCR)

Clostridium difficile Infection

Both criteria must be present

* Diarrhea: 3 or more liquid or watery stools above what is normal for the resident within a 24 hour period
* Presence of toxic megacolon (abnormal dilatation of the large bowel, documented radiologically)

AND

At least one of the following subcriteria

* A stool sample yields a positive laboratory test result for C. *difficile* toxin A or B or a toxin producing C. *difficile* organism is identified from a stool sample culture or by a molecular diagnostic test such as PCR
* Pseudomembranous colitis is identified during endoscopic examination or surgery or in histopathologic examination of a biopsy specimen

## SKIN

CELLULITIS/SOFT TISSUE/WOUND INFECTION

At least one criteria must be met:

* Pus at wound, skin, or soft tissue site

New or increasing presence of at least **four** of the following subcriteria:

* Heat at the affected site
* Redness at the affected site
* Swelling at the affected site
* Tenderness of pain at the affected site
* Serous drainage at the affected site
* One (1) Constitutional Criteria

SCABIES

Both criteria must be present

* Maculopapular and/or itching

AND

At least one of the following subcriteria

* Physician’s diagnosis
* Laboratory confirmation (scraping or biopsy)

**Fungal oral or perioral and skin infections**

Oral candidiasis

Both criteria must be present

* Presence of raised white patches on inflamed mucosa or plaques on oral mucosa
* Diagnosis by a medical or dental provider

Fungal skin infection

Both criteria must be present

* Characteristic rash or lesions
* Either a diagnosis by a medical provider or a laboratory confirmed fungal pathogen from a scraping or a medical biopsy

**Herpesvirus skin infections**

Herpes simplex infection

Both criteria must be present

* A vesicular rash
* Either physician diagnosis or laboratory confirmation

Herpes zoster infection

Both criteria must be present

* A vesicular rash
* Either physician diagnosis or laboratory confirmation

**EYE INFECTION**

CONJUNCTIVITIS:

At least **one** of the following criteria must be present:

* Pus from one or both eyes for at least 24 hours
* New or increased conjunctival redness, with or without itching or pain, for at least 24 hours
* New or increased conjuctival pain for at least 24 hours

**Definitions for Constitutional Criteria in Residents of Long Term Care Facilities**

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| --- | --- |
| Fever | 1. A single oral temperature greater than100°F or 2. Repeated oral temperatures greater 99°F or 3. Rectal temperatures greater than 99.5°F or 4. A single temperature greater than 2°F over baseline from any site |
| Leukocytosis | 1. Neutrophilia (>14,000 leukocytes/mm3) or 2. Left shift (>6% bands or ≥1,500 bands/mm3) |
| Acute change in mental status from baseline | All criteria must be present:   * Acute onset (Evidence of acute change in resident’s mental status from baseline) * Fluctuating course (Behavior fluctuating: e.g., coming and going or changing in severity during the assessment) * Inattention (Resident has difficulty focusing attention: e.g., unable to keep track of discussion or is easily * Either disorganized thinking or altered level of consciousness   Disorganized thinking (Resident’s thinking s incoherent: e.g., rambling conversation, unclear flow of ideas, unpredictable switches in subject) or  Altered level of consciousness (Resident’s level of consciousness is described as different from baseline: e.g., hyperalert, sleepy drowsy, difficult to arouse, nonresponsive) |
| Acute Functional Decline | A new 3 point increase from baseline in total activities of daily living (ADL)score based on the following 7 ADL: Bed mobility, Transfer, Locomotion within the facility, Dressing, Toilet use, Personal hygiene, Eating |

# **Monitoring**

# Antibiotic use will be monitored:

# The Unit Manager or designee will run the Drug Class report for antibacterials in MatrixCare for their unit, twice a week.

* 1. An Infection Preventionist will collaborate with other licensed nurses to determine if the McGeers criteria has been met.
  2. The results of this report will be discussed at the morning clinical meeting.