MAPLEWOOD Senior Living

Infection Prevention in Assisted Living Facilities

Managing Complex Care in Evolving Environments

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Agenda

1. Overview of Rising Acuity in Assisted Living
2. Infection Indicators and Trends in Long-Term Care Facilities
3. Summary of Ohio's Infection Control Regulations for Assisted Living Facilities
4. Infection Control & Prevention Strategies
5. Infection Surveillance Process – Revised McGeer Criteria
   - The **McGeer Criteria** are a set of standardized guidelines used to identify healthcare-associated infections (HAIs) in long-term care settings, such as nursing homes and assisted living facilities

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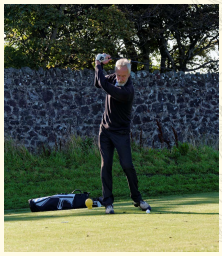
The Changing Landscape of Assisted Living

- Assisted Living Facilities (ALFs) – OH (RCF) are evolving to meet growing healthcare needs.
- Traditionally serving individuals with minimal assistance, many ALFs now manage residents with complex medical conditions, such as chronic diseases and cognitive impairments.
- This shift introduces new challenges in infection control.



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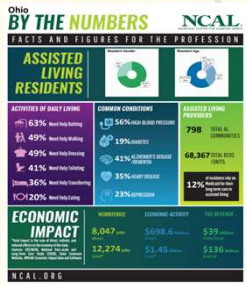
Increasing Acuity Among Residents

- RCF residents now closely resemble those in skilled nursing facilities. Conditions such as polypharmacy, cognitive decline, and chronic disease prevalence have increased, leading facilities to expand nursing roles and adopt integrated care models.



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Infection Control Challenges

With the shift toward higher-acuity residents, RCFs are facing new infection risks.

- Although infection surveillance in RCFs has historically been less stringent than in skilled nursing facilities, many states have introduced stricter infection control regulations (Senior Housing News)
- In 2024, 86% of states now require infection control protocols for RCFs, underscoring the need for proactive prevention measures in these environments (LeadingAge New York)
- Influenza vaccination programs and integrated emergency operations plans are more common, especially in larger facilities with dementia care units (CDC)

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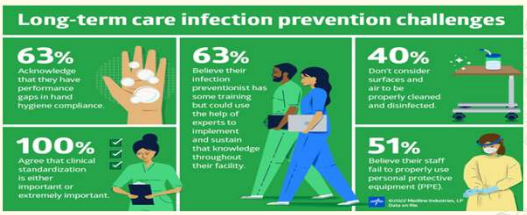
Preventing Infections in Medically Complex Residents

- The heightened medical complexity of residents places greater importance on infection control
- RCFs must face the current challenges and introduce infection control strategies to answer the infection prevention challenges



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Rising Acuity in Assisted Living - Key Takeaways

- RCFs are faced with rising in acuity of residents
- Communities have gradually evolved into care environments that closely resemble nursing homes regarding healthcare delivery and infection control needs.
- As RCFs manage more medically complex populations, infection control has become a critical part of operations, with states introducing stricter regulations to protect residents.
- These changes reflect the evolving role of RCFs, emphasizing the need for integrated care models, specialized staff training, and robust infection prevention strategies to maintain resident health and safety.

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Infection Indicators and Trends in Long-Term Care (LTC) Facilities

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Introduction

- Infections in long-term care (LTC) facilities represent a significant public health concern.
- Healthcare-associated infections (HAIs) are prevalent among residents who often have underlying medical conditions and use indwelling devices.
- The COVID-19 pandemic further disrupted infection control measures, contributing to a rise in infections.

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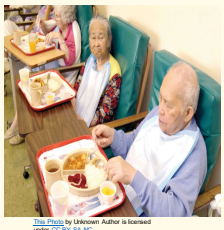
What is the CDC Reporting?



- CDC data suggests that approximately one in 43 nursing home residents acquires at least one infection daily, emphasizing the need for stringent infection control practices.
- Reports indicate increased incidences of multidrug-resistant organisms (MDROs), with *Clostridioides difficile* (C. diff) and *Methicillin-resistant Staphylococcus aureus* (MRSA) posing ongoing challenges in LTC settings (CDC, 2024).

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The Pennsylvania Patient Safety Reporting System (PA-PSRS)

- The Pennsylvania Patient Safety Reporting System (PA-PSRS) is the largest database of patient safety event reports in the United States.
- In addition to over 4.7 million acute care reports, the PA-PSRS database contains more than 420,000 long-term care (LTC) healthcare-associated infection (HAI) reports.
- In Pennsylvania, data for 2023 shows an 11.4% increase in infections compared to 2022, with the most frequently reported infections being skin and soft tissue infections (SSTIs) and symptomatic urinary tract infections (UTIs).
- Pennsylvania's infection rate reached 0.98 per 1,000 resident days, reflecting broader national trends (Patient Safety, 2023).

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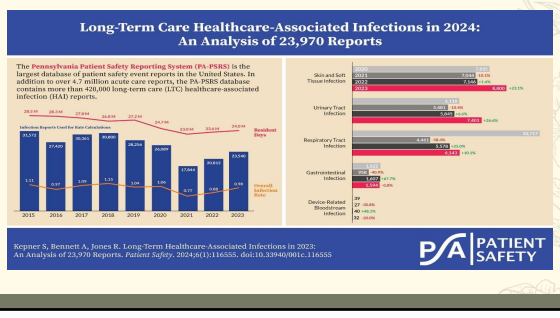
The Pennsylvania Patient Safety Reporting System (PA-PSRS) cont.



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Nationwide Trends and Reporting Efforts

Nationwide Trends and Reporting Efforts

- According to the National Post-acute and Long-term Care Study (NPALS), recent reports in long-term care facilities underscore the need for comprehensive infection control measures across multiple regions.
- Data collected by the CDC through the National Healthcare Safety Network (NHSN) shows variability in infection control performance by state, with some states reporting improvements. In contrast, others report worsening trends across infection types.

(NPALS, 2024; CDC, 2023).

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Key Takeaways - Infection Indicators and Trends in Long-Term Care (LTC) Facilities

- Healthcare-associated infections in long-term care facilities remain a critical issue, requiring focused efforts on infection prevention and control.
- Improvements are needed in areas such as staff training, leadership engagement, and resource allocation to enhance the quality of care.
- Infection rates are rising in multiple regions and COVID pandemic only worsened the issue.
- Monitoring infection trends through initiatives like NPALS and the CDC's NHSN ensures that healthcare facilities remain vigilant and responsive to infection threats.

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Ohio's Infection Control Regulations for Assisted Living Facilities

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Summary of Ohio's Infection Control Regulations for Assisted Living Facilities

- Ohio has recently introduced comprehensive infection control regulations for residential care facilities (RCFs), including assisted living facilities, to ensure resident safety and prevent disease transmission.
- Effective July 12, 2024, these updates significantly strengthen the state's infection prevention and surveillance efforts.

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Adverse Changes in Resident Health and Incident Management

Adverse Health Changes: Facilities must take immediate action if a resident's health deteriorates, which includes:

- Providing medical intervention or transferring the resident to an appropriate facility.
- Documenting the change in health and the steps taken in the resident's records.
- Sharing relevant information with medical personnel involved in the intervention.
- Notifying the resident's sponsor unless the resident objects

Incident Reporting: Any incident involving residents or staff posing a health risk must be addressed by:

- Providing necessary intervention and medical attention.
- Documenting the incident in an incident log and the resident's records.

Investigating the incident and maintaining an accessible log for state authorities

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Infection Prevention and Control Program Requirements

Appointment of Infection Control Designee:

- Each facility must appoint a qualified infection control designee responsible for managing the program. This individual must:
  - Hold post-secondary education or relevant training in a healthcare field (e.g., nursing, epidemiology).
  - Be employed at least part-time or contracted part-time.
  - Register with the Ohio Department of Health (ODH) within ten days of hiring or appointment

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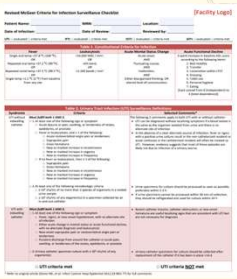
Infection Prevention and Control Program Requirements cont.

- **Surveillance Plan:** Facilities are required to establish written surveillance systems using nationally recognized criteria (e.g., McGeer criteria). These systems must:
  - Track healthcare-associated infections (HAIs) and detect multidrug-resistant organisms (e.g., *Candida auris*).
  - Implement corrective actions in response to infection outbreaks



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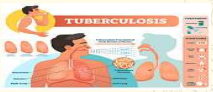
Water Management and Tuberculosis Control

- **Water Management Plan:**
  - Facilities must assess risks and implement measures to prevent the spread of waterborne pathogens, such as Legionella, following CDC guidelines

- **Tuberculosis Control:**
  - Facilities must follow Ohio's tuberculosis control protocols to ensure timely detection and prevention of transmission within the community



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Staff and Environmental Hygiene Protocols – Must Have Policies

Hand Hygiene:

Staff involved in direct resident care must adhere to hygiene protocols, including:

- Washing hands for at least 20 seconds with soap and water.
- Using alcohol-based sanitizers as recommended by the CDC when soap is unavailable

Laundry Management:

Laundry handling procedures must minimize infection risk by:

- Storing soiled laundry in secure bags.
- Using protective gear, such as gloves and gowns, when handling contaminated laundry

Isolation Procedures:

- Written isolation protocols must be in place to prevent disease spread, ensuring isolation is as minimally restrictive as possible for residents

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Key Takeaways – Infection Control Regulations for Assisted Living Facilities

These regulations reflect Ohio's commitment to addressing the evolving needs of assisted living residents and preventing infection outbreaks.

The rules emphasize proactive measures, robust surveillance, and collaboration with public health authorities, ensuring facilities are well-prepared to manage health challenges and maintain high care standards.

- For more details, you can review the Ohio Administrative Code's updated regulations at Ohio Laws and relevant guidelines on water safety at Industrial Water Management.

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Infection Prevention and Control in Assisted Living Communities

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Infection Prevention and Control in Assisted Living Communities

- Enhance your community's infection prevention through:
  - Established infection control practices
  - Transmission-based precautions
  - Engaging residents and families in infection prevention efforts.

https://www.ahcancal.org/Assisted-Living/Facts-and-Figures/Pages/default.aspx

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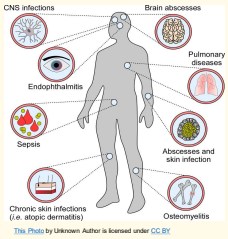
Common Infections in Assisted Living



Most frequent infections occur in:

- **Urinary tract**
- **Respiratory system**
- **Skin and soft tissue**
- **Gastrointestinal system**

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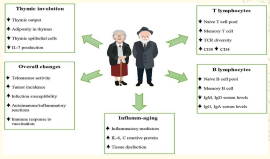
Risk Factors for Infections

- Aging and Infection Risk Factors
  - Aging leads to:
    - Skin breakdown and wounds
    - Difficulty swallowing or drinking
    - Mobility limitations and incontinence
    - Mental impairments, poor hygiene, and weakened immune responses
    - Medical conditions and invasive devices
- Other
  - Poor nutrition
  - Medications
  - Chronic illnesses



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Pathways of Infection Transmission and Chain of Infection

- Infections spread via:
  - **Direct contact** between people
  - **Indirect contact** through shared surfaces or equipment
  - **Airborne or droplet transmission** (coughs, sneezes, touching surfaces)

- For transmission of an infectious agent to occur, all the following elements are required:
  - Infectious agent (pathogen)
  - Reservoir
  - Portal of exit
  - Means of transmission
  - Portal of entry
  - Susceptible host.

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Infection Prevention and Control – IPC

- There are two types of precautions used for IPC:
  - Standard precautions
  - Transmission-based precautions.
- It's critical to understand the means of transmission and how and when to use precautions to prevent and control the spread of infectious agents.

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Standard Precautions and Infection Prevention Best Practices

Standard Precautions in Resident Care

- **Hand hygiene:** Wash with soap and water for at least 20 seconds.
- Use **PPE (gloves, masks, gowns)** when dealing with blood, body fluids, or wounds.
- Avoid touching your face during care activities.
- Cover coughs and sneezes properly.

Personal Protective Equipment (PPE) Use

- PPE (gloves, masks, gowns) should
- Be used **once** and disposed of properly.
- Be changed between residents and after contact with contaminated surfaces.

Environmental Cleaning and Disinfection

- Clean high-touch areas like **doorknobs, bed rxails, and counters** frequently.
- Use hospital-grade disinfectants.
- Always use the appropriate PPE when handling cleaning products.

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Transmission-Based Precautions

Contact Precautions:	Droplet Precautions:	Airborne Precautions:
Use gloves and gowns for infections like GI infections, c-diff, scabies, herpes simplex, and conjunctivitis.	Wear masks for infections like influenza; RSV	Use N95 masks for TB, COVID-19

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Multidrug-Resistant Organisms (MDROs)

Preventing and Managing MDROs

Examples of MDROs:

- MRSA
- VRE
- C. difficile
- ESBL-producing bacteria

Residents with invasive devices or extended hospital stays are at higher risk.

Controlling MDROs in RCFs

Strict adherence to:

- **Hand hygiene protocols**
- **Contact isolation precautions**
- **Proper antibiotic** use to prevent resistance.

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Outbreak Management and Communication

Managing Outbreaks in Assisted Living Communities

- Outbreaks commonly involve:
  - **Respiratory illnesses**
  - **Gastrointestinal diseases**
- Quick **identification of clusters** is essential to prevent spread.
- Use posted signs to remind everyone about **hand hygiene and mask use**.

Effective Communication in Infection Control

- Maintain clear communication with residents, families, and staff about:
  - Infection status and care plans.
  - Safety protocols during outbreaks.

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Staff Engagement in Infection Control and Prevention

Preparing for Surveys and Compliance

Assisted living communities must follow **OSHA** guidelines and maintain **survey readiness**:

- Provide PPE and proper safety training
- Ensure compliance with infection prevention policies.

Engaging Staff and Residents in Infection Prevention

- Everyone, including **residents and families**, plays a role in infection prevention.
- Create a **culture of safety** where staff feel comfortable reporting safety concerns.
- Promote teamwork and open communication to reduce risks and prevent errors.

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Key Takeaways - Infection Prevention and Control in Assisted Living Communities

1. Hand **hygiene and PPE** are essential in preventing infections.
2. Use **transmission-based precautions** when necessary.
3. Engage **residents and families** in maintaining safety.
4. Monitor antibiotic use to prevent resistance.
5. Foster a **culture of safety** through teamwork and communication.

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Infection Surveillance

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Infection Surveillance

Objectives

- Discuss basic principles of epidemiology and how they apply to healthcare-associated infection (HAI) surveillance.
- Review recommended surveillance practices.
- Describe surveillance outcome and process measures for infection prevention.
- Review surveillance definitions (McGeer Criteria)

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The role of the Infection Control Designee (ICD)

The ICD aims to prevent the spread of infectious agents by applying principles of epidemiology to HAI surveillance.

The ICD will:

- Collect accurate and consistent infection data and communicate the findings for prevention and surveillance.
- Monitor the process measures to improve adherence to infection prevention care practices.

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Epidemiology Overview

Definition: The study of disease distribution and determinants in populations.

Focus Areas:

Clinical Care: Emphasizes the health and treatment of individual patients.

Epidemiology: Concentrates on health outcomes and patterns within groups.

Key Questions Addressed by Healthcare Epidemiology:

- What factors contribute to rising infection rates?
- Which populations are more vulnerable to hospital-acquired infections (HAIs)?
- How have HAIs evolved over time?
- What trends can be observed in infection rates over various periods?

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Epidemiology of Infection Prevention and Surveillance

Goal: HAI Prevention

Foundation: Epidemiology and surveillance are essential components of HAI prevention.

Actionable Data: Utilize data to drive interventions!

Key Points:

Involves the ongoing and systematic processes of:

Collection: Gathering relevant data
Recording: Documenting findings accurately
Analysis: Interpreting data to identify trends
Dissemination: Sharing insights with leadership and care teams

Purpose:

Reflects the incidence of disease onset or current status within a community or population (e.g., Your Assisted Living Community).
Identifies risk factors associated with disease.
Supports public health initiatives aimed at reducing illness and mortality.

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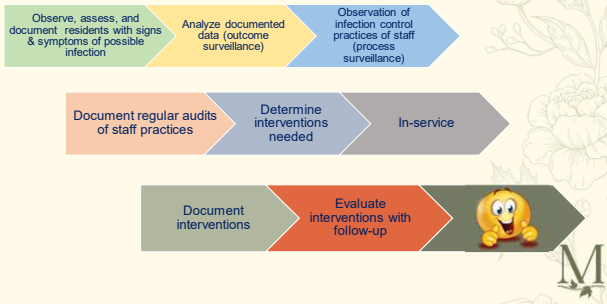
Understanding the Pathway of Surveillance Data



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Process Measures and Surveillance Tools

Infection Control Designees should develop, implement, and evaluate standardized methods to:

- Monitor compliance
- Determine corrective actions needed
- Report all findings to leadership
- Give feedback to staff on findings

Tools for observation and assessment of compliance can include:

- Hand Hygiene
- Standard & Transmission-Based Precautions (PPE)
- Treatment Nurse Observation (Dressing Change techniques)
- Environmental Sanitation

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Why Conduct Surveillance?

Monitor Trends: Track changes over time to identify patterns.

Immediate Action: Enable prompt responses to emerging issues.

Learning and Development: Create metrics for understanding disease progression and identifying at-risk groups.

Intervention Planning: Inform and guide the design of effective interventions.

Evaluate Effectiveness: Assess the impact of interventions on health outcomes.

Resident and Staff Protection: Ensure a safer environment for both residents and healthcare personnel.

Quality Improvement: Enhance the overall quality of nursing care.

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Key Concepts in Surveillance

Infection
Presence of pathogen on culture
Organism growth & invasion of host
Presence of clinical signs & symptoms

Colonization
Presence of microorganisms on culture
No tissue invasion
Absence of clinical signs & symptoms

Understanding these terms is essential for conducting a meaningful surveillance program

Healthcare-associated Infection - HAI
HAI (nosocomial) - nosocomial infection is **an infection that develops while a person is in a healthcare facility**
When clinical signs of an infection are found to be present AFTER the resident has been in your facility for 2 calendar days

Community-acquired Infection – CAI
When clinical signs or symptoms are present on admission or manifest WITHIN 2 calendar days from the date of admission

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Revised McGeer Criteria Overview

The **Revised McGeer criteria** are guidelines specifically designed to identify healthcare-associated infections (HAIs) in long-term care facilities.

These criteria are utilized for the retrospective counting of infections to monitor and improve infection control practices.

They are not intended to dictate antibiotic initiation or serve as a diagnostic tool.

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Surveillance Criteria Overview

Purpose:

- Establish criteria for consistently counting infection cases.
- Data Needed:
  - Clinical Data: Signs and symptoms of infection.
  - Laboratory Results: e.g., WBC count.
  - Microbiology Data: e.g., urine culture results.
  - Imaging Results: e.g., chest X-ray indicating an infiltrate.
- When to Apply:
  - Conduct a retrospective review of clinical data, which may not be available during initial assessments.
- Clinical Utility:
  - Assess the number of true infections and estimate the incidence/prevalence of infections.
- Caveat:
  - Not meeting surveillance definitions does not imply the absence of infection. Conversely, meeting the definition does not automatically indicate the need for antibiotic treatment.

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Does it meet the Criteria?

Determine Symptoms:
Assess if the symptoms exhibited by your resident meet the Revised McGeer's definition of infection.

Categorization:
If a resident displays some symptoms but not all required symptoms, the event falls into the "Does Not Meet Criteria" (DNMC) category.

Infection Rate Calculation:
Events classified as DNMC will not be included in your overall infection rate.
Calculate a separate rate specifically for DNMC events to maintain clarity in infection tracking.

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Infections with Priority According to the Revised McGeer Criteria

According to Revised McGeer's Criteria, the infections that should have priority are:

- Shown to be avoidable
- Infections that cause significant morbidity and mortality
- Infections with evidence of transmissibility in the HC setting
- Those caused by pathogens causing a serious outbreak

- Respiratory infections
- Gastroenteritis
- Conjunctivitis
- Pneumonia
- UTI
- Clostridium difficile infections
- Norovirus
- Scabies
- Influenza
- Skin, soft tissue infections

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Constitutional Criteria Used

Fever- 100F, or oral 99F repeated, or 2 degrees (F) above baseline
Leukocytosis- >14,000 leukocytes /mm3, or > 6% bands, or > 1,500 /mm3

Acute change in mental status from baseline
Must be an ACUTE change & ACUTE onset
Fluctuating behavior
Inattention-Cannot keep track of discussion, difficulty focusing attention
AND either: Disorganized thinking-Incoherent, rambling, unclear flow of ideas OR Altered level of consciousness-level of consciousness different from baseline
ALL CRITERIA MUST BE MET!

Acute Functional Decline
Decline is considered when a resident has a 3-point increase in the total number of ADL items, each scored from 0 (independent) to 4 (total dependent).

The constitutional criteria are only one component of the diagnostic framework. They are used as supplementary indicators of infections and need to be combined with specific clinical signs and symptoms for different types of infections to meet the full criteria

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Respiratory Tract Infections (RTI)

Common Cold Syndrome or Pharyngitis

Signs (must have at least two):

Runny nose, sneezing, stuffy nose, sore throat, dry cough, or swollen/tender glands in the neck (cervical lymphadenopathy)

Notes: Fever may or may not be present. Symptoms should be new and not attributable to allergies.

Influenza-like Illness

Criteria (must meet both):

Fever &

At least three of the following: chills, new headache or eye pain, myalgia (muscle aches), malaise (feeling unwell), loss of appetite, sore throat, or new/increased dry cough.

RTIs Types:

Common Cold Syndrome or Pharyngitis

Influenza-like Illness

Pneumonia

Bronchitis or Tracheobronchitis

Key Criteria: New symptoms like cough, fever, sputum production

Pneumonia

Key Criteria (must meet all three):

Chest X-ray with pneumonia or a new infiltrate

At least one symptom: new/increased cough, sputum, oxygen saturation < 94% on room air, new/changed lung exam abnormalities, pleuritic chest pain, or respiratory rate ≥ 25 breaths/min.

At least one constitutional sign: fever, leukocytosis, acute mental status change, or functional decline

Bronchitis/Tracheobronchitis

Key Criteria (must meet all three):

Chest X-ray not performed or negative for pneumonia

At least two symptoms similar to pneumonia criteria

At least one constitutional sign similar to pneumonia criteria.

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Urinary Tract Infections (UTI)

Criteria (must meet both).

1. At least one of the following signs or symptoms

- Acute dysuria or pain, swelling, or tenderness of testes, epididymis, or prostate
- Fever or leukocytosis, and ≥ 1 of the following:
  - Acute costovertebral angle 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
- If there is no fever or leukocytosis, then ≥ 2 of the following:
  - Suprapubic pain
  - Gross hematuria
  - New or marked increase in incontinence
  - New or marked increase in urgency
  - New or marked increase in frequency

2. At least one of the following microbiologic criteria

- ≥ 10^5 cfu/mL (colony forming units) of no more than 2 species of organisms in a voided urine sample
- ≥ 10^2 cfu/mL of any organism(s) in a specimen collected by an in-and-out catheter

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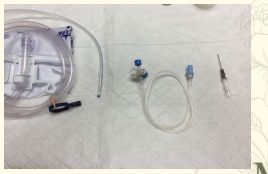
UTI with an Indwelling Catheter

Criteria (must meet both).

1. At least one of the following signs or symptoms
   - Fever, rigors, or new-onset hypotension, with no alternate site of infection
   - Either acute change in mental status or acute functional decline, with no alternate diagnosis and leukocytosis
   - New-onset suprapubic pain or costovertebral angle pain or tenderness
   - Purulent discharge from around the catheter or acute pain, swelling, or tenderness of the testes, epididymis, or prostate

2. Urinary catheter specimen culture with ≥ 105 cfu/mL of any organism(s)



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Skin and Soft Tissue Infections (SSTI)
Cellulitis, Soft Tissue, or Wound Infection

At least one of the following criteria must be present:

1. Pus present at the wound, skin, or soft tissue site AND/OR

2. New or increasing presence of a least four of the following sub-criteria:

- Heat at site
- Redness at site
- Swelling at site
- Tenderness OR pain at site
- Serous drainage at affected site
- **One constitutional criteria**

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Skin and Soft Tissue Infections (SSTI)
Oral Candidiasis and Fungal Skin Infections

Oral Candidiasis

- **Criteria (must meet both):**
  - Presence of raised white patches on inflamed mucosa or plaques on oral mucosa
  - Medical or dental diagnosis.

Fungal Skin Infection

- **Criteria (must meet both):**
  - Presence of characteristic rash or lesions
  - Physician diagnosis or laboratory confirmation from a skin scraping or biopsy.

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Skin and Soft Tissue Infections (SSTI)
Herpes Simplex/Zoster; Scabies; Conjunctivitis

Herpes Simplex or Herpes Zoster Infection

- **Criteria (must meet both):**
  1. Presence of a vesicular rash
  2. Physician diagnosis or laboratory confirmation

Scabies

- **Criteria (must meet both):**
  1. Maculopapular and or itching rash
  2. At least 1 of the following sub-criteria:
     Physician diagnosis
     Laboratory confirmation (scraping or biopsy)
     Epidemiologic linkage to a case of scabies with laboratory confirmation

Conjunctivitis

- **Criteria (must meet at least one):**
  1. Pus from one or both eyes for ≥ 24 hours.
  2. New or increased conjunctival erythema and/or itching.
  3. New or increased conjunctival pain for ≥ 24 hours.

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Gastrointestinal Tract Infections (GITI) Gastroenteritis; Norovirus Gastroenteritis; Clostridium difficile (C-diff)

Gastroenteritis	Norovirus Gastroenteritis	Clostridium Difficile Infection (C-diff)

• Criteria (must meet at least one):
  • Diarrhea: ≥ 3 liquid or watery stools above the resident's baseline in 24 hours
  • Vomiting: ≥ 2 episodes in 24 hours
  • Both diarrhea or vomiting and a positive stool specimen for a pathogen, along with at least one additional symptom like nausea, vomiting, abdominal pain, or tenderness
	• Criteria (must meet both):
	  • At least one of the following: diarrhea (≥ 3 watery stools), vomiting (≥ 2 episodes in 24 hours)
	  • Positive stool specimen for norovirus by lab methods.
		• Criteria (must meet both):
		  • At least one of the following: diarrhea (≥ 3 watery stools), or toxic megacolon
		  • At least one diagnostic confirmation: positive stool test for C. difficile toxins or pseudomembranous colitis confirmed by endoscopy or biopsy.

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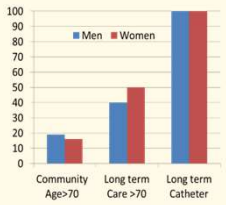
Measuring Infections



Prevalence: Number of people in a population who have a disease or other health outcome at one point in time.

Incidence: Number of people in a population who develop a disease or other health outcome over a period of time (i.e. *new* cases over a period of time).

What's the difference? Prevalence includes all cases, both new and pre-existing, in the population at the specified time, whereas incidence is limited to new cases only.

Why do we need these measures? These measures work together to help us understand and plan for the impact of a disease or health outcome in our community

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Incidence

Incidence measures the frequency of disease onset (i.e., rate).

Answers: What is the risk of X occurring?

- Incidence = number of new cases during a specified time period divided by the size of a specific population
- The "number of infections" are the cases identified by surveillance activities (for example five UTIs), during a defined time frame (i.e. August) in a defined population (census).
- Surveillance can occur community-wide, or by unit or neighborhood (recommended).
- The "constant" is usually an assigned value of 100, 1,000, 10,000, etc., which represents a standard population for interpretation of the rate.
- Using 100 as the constant will give an infection rate that may be interpreted as a percentage rate, which is easier to understand and to display when presenting data month over month.

Example:

5 UTI Infections x 100 (constant) = 6.25 % UTI rate in August
80 residents

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Incidence Density Rate

- Another way to calculate the infection rate is by using the number of resident days for the population at risk.
- Incidence density rate, also known as person-time rate, is a measure of how quickly a health outcome occurs in a population.

Calculation of resident days:

2480 = 80 residents x 31 days in August.

Example:

5 UTI Infections x 1000 days (constant) = 2 infections per 1000 resident 2480 resident days

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Key Takeaways - Infection Surveillance

Infection Rate Benchmark

1. Using the Revised McGeer Criteria, start tracking the number of infections and determine the infection rates each month using the formulas discussed here.
2. By tracking the rates over a longer period, you can establish your own benchmark and compare the infection rates in your community with those in your region or company.

!!! National or state averages or rates may not reflect the same resident population you have.

What to do with the data??

Review and analyze data collected

- Look for trends
- Compare process surveillance with outcome surveillance
- Share your data with leadership and staff
- Use data for Performance Improvement Projects

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Final Summary

- Evolving Needs:
  - Assisted Living Facilities (ALFs) are adapting to rising acuity levels among residents, necessitating enhanced infection control measures.
- Infection Risks:
  - The increasing prevalence of healthcare-associated infections (HAIs) highlights the importance of robust surveillance and prevention strategies.
- Regulatory Framework:
  - Recent regulations, such as those in Ohio, emphasize the need for comprehensive infection control programs, including designated infection control designees and adherence to national criteria like the McGeer criteria.
- Key Strategies:
  - Implement standardized infection surveillance processes.
  - Engage residents and families in infection prevention efforts.
  - Utilize data to monitor trends and evaluate the effectiveness of interventions
- Future Directions:
  - Continuous improvement in infection prevention practices is vital to safeguard the health and well-being of residents, with ongoing training and resources for staff being critical components of success.

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