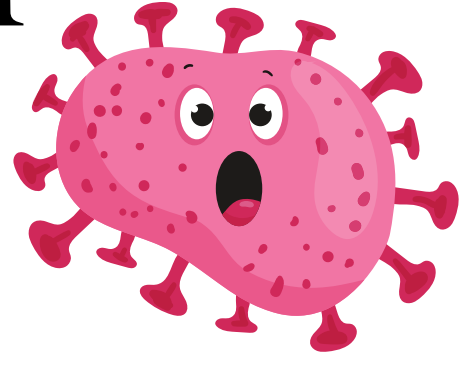


BUG OF THE MONTH: CPE



(Carbapenemase-producing Enterobacteriaceae)

WHAT IS IT?

- CPE are a group of bacteria naturally found in the intestines of many people
- CPE make enzymes known as carbapenemases, which can **break down carbapenem antibiotics**—powerful medications used to treat serious infections. This makes **CPE resistant to these antibiotics**, making infections caused by them more difficult to treat
- People may carry CPE without symptom (**colonization**) which can last for months or even years
- CPE can also spread to other body parts (bladder, lungs, skin/soft tissue and bloodstream) leading to severe infections

SIGNS AND SYMPTOMS

- Symptoms of CPE infections vary depending on the affected area and may include:
 - **Urinary Tract Infection:** pain or burning during urination, frequent urination, cloudy or foul-smelling urine
 - **Skin and Soft Tissue Infection:** redness, swelling, pain, warmth, possibly pus or drainage from the wound
 - **Respiratory Tract Infection:** fever, persistent cough, shortness of breath, and chest pain that worsens with breathing or coughing
 - **Bloodstream Infection:** high fever, shaking, chills, and rapid heart rate



DID YOU KNOW?



- CPE infections pose a higher risk for unhealthy individuals, while healthy people are less likely to get infected
- In Ontario, CPE is reportable and must be reported to local public health units
- [Pouring bodily fluids or drinks](#) (except water) into sinks in healthcare settings can spread CPE. CPE can live in sinks if not properly cleaned and disinfected allowing CPE to spread

- The main risk factors for contracting CPE include:
 - Receiving care in healthcare facilities that have CPE (particularly New York City, Greece, Israel, and the Indian subcontinent)
 - People from the Indian subcontinent (who face risk regardless of healthcare exposure)
- **CPE outbreaks are increasingly occurring in hospitals worldwide, including Canada**

TRANSMISSION

- CPE can spread through contact transmission, which occurs via:
 - **Direct contact:** Person-to-person transmission, often through the hands of healthcare workers who have not performed hand hygiene
 - **Indirect contact:** Transmission via contaminated surfaces or equipment, such as medical devices that have not been properly cleaned and disinfected
- **To reduce the risk** of CPE transmission in healthcare settings, following [Routine Practices](#) is essential!

IPAC CONSIDERATIONS

- Each health care setting should have a prevention and control program for AROs
- Residents with CPE should be placed on [Contact Precautions](#)
- Use dedicated equipment for the resident. If not feasible, clean and disinfect shared equipment after each use
- Cleaning and disinfection includes routine cleaning and disinfection with particular attention to sink cleaning and disinfection