

Infectious Disease Update



Carbapenamase Producing Enterobacteriaceae (CPE)

WHAT ARE CPE?

- CPE (Carbapenamase Producing Enterobacteriaceae) are Enterobacteriaceae bacteria (most commonly Klebsiella and E. coli) that have developed resistance to many antibiotics (carbapenems, penicillins, cephalosporins, and usually aminoglycosides and fluoroquinolones).
- They can transfer resistance to other bacteria (including different species).
- They are difficult to treat and treatment usually involves antibiotics that are costly or have significant adverse effects (colistin, tigecycline).
- Severe infections may cause death in up to 50% of cases.
- CPE outbreaks have been seen in hospitals around the world, including Canada. Several cases have been reported in Ontario with cases being identified in our geographic region.
- Several Classes - Examples: KPC, NDM-1.

WHO IS AT HIGH RISK FOR CPE?

- Those who have travelled or received healthcare in settings that have CPE, ie. hospitals along the U.S. eastern seaboard (particularly New York City), Greece, Israel and the Indian subcontinent in the past 12 months.
- Contact with a known case of CPE.
- Admission to any hospital or facility with a CPE outbreak or CPE transmission.
- Other risk factors common to colonization or infection with gram-negative bacteria (e.g. length of stay, indwelling devices, etc.).

HOW IS CPE TRANSMITTED?

- Direct and indirect contact (ie. hands of healthcare workers (HCW) – like MRSA, VRE and CDI...etc).
- CPE may survive on surfaces and equipment (ie. bedrails, tables, chairs, countertops, door handles).
- CPE can be spread from one person to another by unwashed hands or from contact with soiled surfaces and equipment.

WHAT ARE THE SIGNS AND SYMPTOMS OF CPE?

- Most people who carry CPE have no symptoms of infection and are said to be colonized. The main site of colonization of CPE is the bowel.
- Infection occurs when CPE enters the body at specific sites and causes symptoms of disease.
- In infected persons, the signs and symptoms would be related to the site of infection. For example, if the CPE is an E. coli and causes a urinary tract infection (UTI), the signs and symptoms are the same as for any other UTI.
- Infection occurs when CPE enters the body at specific sites and causes symptoms of disease.

DOES CPE GO AWAY?

- People who have CPE in their bowel will likely carry it for a long time. You do not need treatment unless CPE infection (i.e. pneumonia, UTI) develops.

ARE CPE A RISK TO HEALTH CARE WORKERS?

- CPE are not a risk to HCWs if they follow routine practices and good hand hygiene.

DOES ENVIRONMENTAL CLEANING FOR CPE DIFFER FROM OTHER CLEANING PROTOCOLS?

- Environmental cleaning is no different than cleaning for other multi-drug resistant organisms (e.g. MRSA, ESBL).

For more information, please contact

Sarah McBride, Public Health Nurse
705-743-1000, ext. 281

Source: Peterborough Regional Health Centre CPE Fact Sheet for Staff

In This Issue:

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RE: *Lethal consequences from the recreational use of the antidepressant bupropion*
- Tools for Preparedness: MERS-CoV
- New App: Youth Service Provider Information

Interim Chief Coroner, Dr. Dan Cass Alert to Ontario Physicians and Pharmacists

RE: Lethal consequences from the recreational use of the antidepressant bupropion (Wellbutrin®; Zyban®) through inhalation and/or injection

Dr. Dan Cass is alerting Ontario physicians, particularly family physicians, emergency physicians, psychiatrists, as well as pharmacists, of the potential lethal consequences of the recreational use of bupropion through atypical routes.

The Office of the Chief Coroner is aware of at least six cases in which the recreational use of bupropion by inhalation or injection was a causative factor in the death. In these cases, bupropion was injected or inhaled alone or in combination with other illicit or prescribed drugs. Injection use may be associated with significant tissue necrosis at the injection site, leading to death in some cases.

A public safety risk appears to be emerging. Physicians and pharmacists should be aware of the potential for recreational use of bupropion via inhalation or injection when considering prescribing and/or dispensing this medication, and when treating patients presenting with complications of use via these atypical routes.

For more details, please contact:

Office of the Chief Coroner for Ontario
26 Grenville Street
Toronto, Ontario M7A 2G9
416-314-4000

Infection Prevention and Control Guidelines Updated

The Provincial Infectious Diseases Advisory Committee on Infection Prevention and Control (PIDAC-IPC) has updated the following annexes to the *Routine Practices and Additional Precautions in All Health Care Settings* best practice document:

- *Annex A: Screening, Testing and Surveillance for Antibiotic-Resistant Organisms in all Health Care Settings (February 2013)*
- *Annex B: Best Practices for Prevention of Transmission of Acute Respiratory Infection in All Health Care Settings (March 2013)*
- *Annex C: Testing, Surveillance and Management of Clostridium difficile in All Health Care Settings (January 2013)*

The documents are available online and were updated to reflect the best available evidence at the time of writing. Updates to the documents are noted and highlighted in the text.

Please view these documents on the Public Health Ontario website at:
<http://www.oahpp.ca/resources/pidac-knowledge/index.html>

Tools for Preparedness: MERS-CoV Infections in Acute Care Settings

The Provincial Infectious Disease Advisory Committee (PIDAC-IPC) has developed *Tools for Preparedness: Triage, Screening and Patient Management of Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Infections in Acute Care Settings*. This document replaces the previously issued *Guidance for Acute Care Settings Regarding Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Infections* and contains links to updated guidance from the Ontario Ministry of Health and Long-Term Care at www.ontario.ca/novelcoronavirus, the Public Health Agency of Canada, the World Health Organization and other important sources.

The document is intended to assist frontline health care workers in the identification and immediate management of patients who present with severe acute respiratory infection that may be due to MERS-CoV. It is a supplement to existing PIDAC documents including Routine Practices and Additional Precautions in all Health Care Settings and Annex B: Prevention of Transmission of Acute Respiratory Infection in all Health Care Settings.

For more information, please contact
Infectious Disease Program Nurses
705-743-1000, ext. 139



Are Your Patients Ready for Extreme Heat This Summer?

With summer quickly approaching and warmer temperatures imminent, the Peterborough County-City Health Unit has activated its Heat Alert and Response System (HARS) to advise residents of the best way to protect their health when temperatures soar.



The Health Unit has adopted a series of extreme heat thresholds designed to advise the public, health professionals, and community service providers of appropriate measures they can take to reduce the health effects of hot, humid and smoggy weather. Information about these three advisory levels is available on the Extreme Weather – Heat webpage on www.pcchu.ca

Extreme heat events are a potentially significant health risk and can have a severe impact on the health of vulnerable populations including infants, the elderly, shut-ins, persons with chronic diseases, the morbidly obese and the marginally housed. Heat related illnesses such as dehydration, heat cramps, heat exhaustion, and heat stroke are preventable.

Community care plays a pivotal role in the prevention of heat illness. Health care providers have regular contact with people of all ages and health status and need to be engaged to help prevent heat illness and mortality by raising awareness of heat-health risks and effective prevention options. It is well established that the use of certain medications leads to an increased risk of a patient experiencing heat-related illness.

Health Canada has developed *Extreme Heat Events Guidelines: Technical Guide for Healthcare Workers* which can be found at <http://www.hc-sc.gc.ca/ewh-semt/pubs/climat/workers-guide-travailleurs/index-eng.php>. The guidelines are comprised of a technical guide of heat-health information and targeted fact sheets (for acute care, community care, and facilities preparation) as well as a brief user guide which provides policy guidance for health organizations.

The Health Unit encourages all stakeholders to advise vulnerable clients of the heat advisory system and precautions they can take to prevent and manage heat related illness.

Air conditioned public facilities are available to local residents seeking a place to cool off, such as shopping malls, arenas, libraries and community centres. Residents are advised to phone in advance to determine hours of operation.

For further information, please contact:
Shawn Telford, Public Health Inspector
705-743-1000, ext. 287

Health Unit Launches New App: Peterborough Youth Service Provider Information

As more and more young people turn to online sources for their health information, the Health Unit has developed a new app to provide youth and their adult allies with safe and reliable access to credible information, local organizations and services when they want it.

Peterborough Youth Service Provider Information (YSPI) is a tool for youth in need of health and social services, and for the adults who work with those youth. The app helps users access a number of community resources, such as finding the closest food bank, sexual health clinic, local recreation opportunities, and even can provide guidance for personal matters such as teen pregnancy or substance misuse.

The app is free and is available to anyone that has access to an iPhone, BlackBerry, Android Smartphone, or tablet, therefore, making it easy for not only young adults to access but also to parents and guardians to retrieve information that relates to youth.

To download for free:

- On Android and Apple devices, search YSPI in your App store, OR
- Use a QR Code scanner to scan the QR Code for your device



For more information about the app, please visit www.pcchu.ca/youthapp.

Lyme disease is reportable in Ontario

Please contact the Health Unit infectious disease staff to provide information if you suspect your client has Lyme disease. Links to testing and treatment information is available on the [Health Professionals](#) section or go to our website (www.pcchu.ca).

If a patient removes a tick or a tick is brought into your office, please submit it to the Health Unit for identification and testing for Lyme disease. Patients can bring ticks to the Health Unit (10 Hospital Drive) between 8:30 a.m. and 4:30 p.m., Monday to Friday. Tick submissions are critical for surveillance and to monitor the spread of the disease to new geographical areas.

For more information on Lyme disease and other vector-borne diseases please go to our website.

For further information, please contact:

Dylan Mahoney
Vector-borne Disease Prevention Program
705-743-1000, ext. 340

Educational Opportunities

Air Quality Health Index: Mainpro-M1 Accredited Training

This on demand, web-based course features multimedia content and a comprehensive overview of air pollutants, the health effects associated with air pollution for susceptible populations, guidelines for health professionals on how to advise patients on actions to reduce the adverse impacts of outdoor air pollution on their health; and the use of the AQHI as a risk communication tool.

This course is available at no cost, made possible through funding by Health Canada.

To register, visit: <http://www.spph.ubc.ca/CE-oaqhealth.htm>

Resources for Patients

Visit our website www.pcchu.ca for information on:

[West Nile Virus](#)

[Fluoride Information](#)

[Sun Safety](#)

[Physical Activity](#)

and many other health topics.

Looking for a specific health topic?

Visit the FYI Newsletter archive at www.pcchu.ca

Resources for HCP's

Engaging New Video Gives the Best Advice for People Considering or Taking Opioid Medications

A new video is available for you and your patients that tackles the question "what is the best advice for people on, or about to start, opioid medications"? It is narrated by Dr. Mike Evans who is known for his unique health videos with almost six million YouTube views.

This video is freely available, in English and French, for anyone to view: [English](#)
[French](#)

Visit www.pcchu.ca in "For Health Professionals" under "Alcohol & Other Drugs".

Health Events for Patients

Prenatal Classes

Classes are ongoing from 7:00 p.m. to 9:00 p.m. (please call for class dates). All classes are held at the Peterborough County-City Health Unit, 10 Hospital Drive, Peterborough. The cost is \$50.00 and subsidies are available. Please let us know if the fee would prevent your patient from attending.

**To register, call the
Peterborough County-City Health Unit
705-743-1000, ext. 215 or 282.**

Food Handler Training and Certification Course (FREE)

Close to 12,000 people have taken this course from the Peterborough County-City Health Unit since 1997. Are you one of them? If not, register now!

This six hour course is essential for anyone who prepares and serves food to the public. It is offered free of charge.

This course concludes with an exam. Successful participants will receive a Certificate in Safe Food Handling which is valid throughout the province for five years.

**To register, call the
Peterborough County-City Health Unit
705-743-1000**