Message from the Medical Officer of Health

Colleagues, I am very pleased to share with you the Fall 2014 issue of The Advisory. I hope the important public health information and articles are useful to you, your patients, and your practice.

Within this issue you will read new and important articles detailing the surveillance and early identification of respiratory diseases as well as controlling outbreaks in long-term care facilities.

There is also an article that speaks to our recent workshop Treating Poverty – A Workshop for Family Physicians. This workshop provided more than two dozen primary care providers with new approaches that recognize the impact poverty has on a patient’s health and life. It was a great event, and one that focuses on a very important issue for our community.

As winter seems to have quickly made an early entrance, I’d like to wish you and your families a safe and healthy holiday season.

Sincerely,

Dr. Penny Sutcliffe
Medical Officer of Health
Recommendations for the use of antivirals in controlling respiratory outbreaks of influenza in Long-Term Care Homes

Stephanie Hastie, Public Health Nurse, Clinical and Family Services

Influenza outbreaks occurring in Long-term Care Homes (LTCHs) can lead to substantial morbidity and mortality among residents and are disruptive and costly for the facilities themselves.

The secondary complications of seasonal influenza virus infection are frequent and severe among the elderly and those at particular risk are institutionalized populations. The use of seasonal influenza vaccine and antivirals is an important component of a comprehensive influenza outbreak management strategy. Recommendations for the use of vaccine and antivirals in LTCH outbreaks are based on current evidence and best practice guidance and are intended to protect the health of resident populations.

The Association of Medical Microbiology and Infectious Disease (AMMI) publish Canada’s current guidelines for the use of antiviral drugs for influenza. Specifically, the current guideline can be found at www.ammi.ca/guidelines.

Currently only the neuraminidase inhibitor oseltamivir [Tamiflu®] is recommended for use in the control of influenza outbreaks in institutions; with zanamivir [Relenza®] recommended for use when the predominant circulating influenza strain is resistant to oseltamivir. The AMMI and MOHLTC guidelines will help inform your clinical decision making regarding the use of medications for influenza treatment and chemoprophylaxis during outbreaks of influenza in LTCHs.

Long-term care facilities are encouraged to have policies and procedures for antiviral use that include: details on appropriate use, obtaining informed consent from residents or substitute decision-makers, use of medical directives for antiviral prophylaxis signed by the facility Medical Director, payment and reimbursement process as well as indications for use among residents and staff. LTCH residents are eligible for prescription drug coverage under the Ontario Drug Benefit Program.

Please contact the Control of Infectious Diseases program at 705.522.9200, ext. 301 if you have questions regarding the use of antivirals during confirmed influenza outbreaks in LTCHs.

Prophylaxis during confirmed influenza outbreaks

As soon as the influenza outbreak is confirmed, in the LTCH, offer antiviral medications to:

1. All residents in the outbreak affected area who are not already ill with influenza, whether previously vaccinated or not, until the outbreak is declared over.
2. All unvaccinated asymptomatic staff who work in the area of the LTCH where the influenza outbreak is occurring, until the outbreak is declared over.
3. All staff, vaccinated or not, when the circulating strain of influenza is not well-matched to the vaccine, until the outbreak is declared over.

Should a person taking a neuraminidase inhibitor develop signs of influenza-like illness, the dosage should be increased to the recommended treatment dose. Prophylaxis may be discontinued once the influenza outbreak has been declared over.

Treatment

<table>
<thead>
<tr>
<th>Prophylaxis</th>
<th>Tamiflu®</th>
<th>Maximum 75 mg PO daily. Supply is limited to a maximum of six weeks.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Relenza®</td>
<td>Two inhalations of 5 mg (10 mg) once daily for 10 days when the predominant circulating strain is resistant to oseltamivir.</td>
</tr>
</tbody>
</table>

Treatment for residents who meet the outbreak case definition

- Treatment for residents should be started as soon as possible and preferably within 48 hours of onset of symptoms for maximum effectiveness.
- For residents who have not been started on antiviral treatment within 48 hours of symptom onset, consider antiviral therapy for individuals in high risk groups; for those with moderate, severe or complicated illness; or for those who are not clinically improving.
- Where an outbreak of influenza is still occurring and antivirals are still being used for prophylaxis among residents; consider offering a prophylaxis dose to a previously line listed individual, who did not have laboratory confirmed influenza, until the outbreak is declared over.
- It’s the responsibility of staff who show symptoms of influenza-like illness to seek antiviral treatment from their personal health care provider.

1 Wait for laboratory confirmation of influenza prior to initiating prophylaxis and treatment.
2 A table that summarizes info about cases associated with an outbreak.
Norovirus
Holly Browne, Manager, Environmental Health

The SDHU has historically observed an increase in the incidence of gastrointestinal disease annually throughout the Sudbury and Manitoulin districts during the fall and winter months. Norovirus is a common cause of gastrointestinal illness and outbreaks.

Norovirus, also known as Norwalk and Norwalk-like viruses, refers to a family of viruses that are present in the stool and vomit of infected people. They are spread primarily through person-to-person contact or contamination of food prepared by a person who is currently ill or has been recently ill and did not wash their hands properly.

Symptoms are of sudden onset and can include vomiting, diarrhea, abdominal pain, headache, body aches, and sometimes fever. People typically become ill 24 to 48 hours after exposure to the virus, and symptoms usually last from one to two days.

Norovirus shedding occurs for up to 48 to 72 hours after cessation of symptoms. The 2010 Position Statement from the Ministry of Health and Long-Term Care (MOHLTC) recommends that the period of exclusion for symptomatic staff of hospitals, long-term care facilities, retirement homes, food service establishments, and day nurseries associated with a Norovirus outbreak should be a minimum of 48 hours after symptom resolution. The same period is required for residents of institutions and children in day nurseries.

In addition, the MOHLTC recommended time frame to declare a Norovirus outbreak over is five days with no new cases (one incubation period [two days] plus one period of communicability [three days]). The SDHU will be following the recommendations of the MOHLTC position statement, which can be found in its entirety at www.sdhu.com in the Health Care Professionals section.

There is no vaccine or treatment for Norovirus. Supportive treatment through bedrest and fluid consumption is recommended.

Help prevent the spread of Norovirus:

1. **Wash hands thoroughly** — especially after using the toilet and after changing diapers. Hands should always be washed before and after handling food.

2. **Do not handle food if you are ill.** People who are ill with Norovirus-like symptoms should not handle food.

3. **Do not visit hospitals or long-term care facilities if you are ill.** People who are ill with Norovirus-like symptoms should not visit family and friends in hospitals or long-term care facilities.

4. **Stay home if you are ill.** People who are ill should stay home for 48 hours following symptom resolution.

5. **Prevent contamination.** Feces and material contaminated with feces must be carefully disposed of and all contaminated surfaces must be disinfected.

6. **Clean all surfaces.** All washrooms and all hand contact surfaces should be cleaned and sanitized with a solution of 1 part bleach to 9 parts water (that is, 1 oz. bleach in 9 oz. water) once daily or as needed.
Stop the spread. Clean your hands.
Arrêtez la propagation. Nettoyez-vous les mains.
The great masquerader
Holly Browne, Manager
Environmental Health

This article is being republished due to a recent delayed diagnosis of blastomycosis in a young healthy individual in our area.

Blastomycosis is a pulmonary infection that presents with generalized symptoms that can be mistaken for other illnesses such as the “flu” or pneumonia.

In addition to the non-specific symptoms, diagnosis is difficult due to the range in incubation periods. Blastomycosis is a rare infection that can cause serious morbidity and mortality if not detected and appropriately treated in the early stages of disease.

Blastomycosis is found in Canada. There have been human cases of blastomycosis diagnosed in the SDHU area and other parts of Ontario.

Blastomyces

- The fungus, *Blastomyces dermatitidis*, found in moist soil is associated with decomposing organic matter such as wood and leaves. Transmission is through inhalation of airborne microscopic spores that can cause a pulmonary infection. Anyone is susceptible and symptoms may appear between three and 15 weeks after initial exposure.

In Ontario, exposure to the fungus most often occurs in the summer and fall months as the activities that would expose an individual usually occur during this time of year. Clinical presentation can be at any time of the year but is more likely to occur in the fall and early winter due to the incubation period.

**CLINICAL MANIFESTATIONS** involve pulmonary, cutaneous, and disseminated disease (involving skin, bones, joints, and the genitourinary tract). Untreated disseminated or chronic pulmonary blastomycosis can be fatal.

Pulmonary blastomycosis may present with acute or chronic symptoms of fever, cough and constitutional symptoms; however, patients can present asymptomatically in up to 50% of cases. Chest X-ray can reveal a single or multiple patchy infiltrates, which can cavitate. Resolution occurs spontaneously in one to three weeks; however, extrapulmonary manifestations may be present in the absence of respiratory symptoms.

Cutaneous involvement is common and presents with verrucous, erythematous papules that may be crusted or ulcerated and affect the face and distal extremities.

**DIAGNOSIS** is made by culture, DNA probe, or microscopy of samples from sputum, tracheal aspirates, cerebrospinal fluid, urine, or cutaneous lesions.

**TREATMENT** with oral itraconazole or fluconazole is recommended for cases with mild or moderate blastomycosis infections. Amphotericin B is indicated in severe or disseminated infection. The suggested course of therapy is six months to one year, followed by a course of oral itraconazole.

Consider blastomycosis in the differential diagnosis of febrile patients presenting with respiratory or “flu like” symptoms and risk behaviours for exposure.

Activities that expose an individual to moist soil with decomposing organic matter such as camping, forestry work, farming, and hunting can expose individuals to the fungus.

**Blastomycosis**

**INCUBATION PERIOD: 3 TO 15 WEEKS**

General signs and symptoms include sudden onset of fever, cough, pulmonary infiltrate, and cutaneous lesions.
Key messages for health care practitioners
Area health care practitioners are reminded that the incidence of this disease fluctuates and that diagnostic vigilance is recommended. Given that delays in diagnosis can contribute to illness and death, clinicians should consider blastomycosis in their differential diagnoses of lung, skin and bone diseases, particularly if the patient does not respond to conventional antimicrobial drug therapy.

Key messages for patients
Know the symptoms of blastomycosis and areas where it is found. If you feel ill see a doctor.
Be aware of your potential exposure from high risk activities.
Wear protective gear when you feel you are at increased risk of exposure including:
- Work gloves
- Long-sleeve shirts and long pants
- Proper Footwear
- Disposable NIOSH N100 approved HEPA filter dust mask
Wearing protective gear will reduce but not eliminate the risk.
Help your patients with questions and concerns about food and healthy eating

Tracey Weatherbe, Manager, Health Promotion

Every day, your patients are bombarded with mixed – often incorrect – messages about healthy eating, and the food environment. You can help your patients navigate the confusion by directing them to EatRight Ontario (ERO).

Whether by phone or by email, the free ERO service will connect your patients to Registered Dietitians who can answer general healthy eating questions, provide nutrition tips and offer information on local community nutrition programs and services.

Advise your patients to call or email EatRight Ontario for credible nutrition information

Residents of Ontario can call an ERO Registered Dietitian, toll free, at 1.877.510.510.2. The service is open Monday through Friday, from 9 a.m. to 5 p.m., with extended hours on Tuesday and Thursday, until 9 p.m. Service, by phone, is available in English, French and over 100 other languages.

Additionally, residents can email their nutrition questions to an ERO Registered Dietitian. A personalized response will be sent within three business days.

NOTE: The ERO service does not provide any medical diagnoses, symptom assessments, health counselling, or medical opinions for individual users.

Order EatRight Ontario promotional materials for your practice

EatRight Ontario offers a variety of promotional materials which can be ordered, free of charge, at 1.877.510.510.2 or via email. Enclosed, in this edition of The Advisory, is a sample ERO poster for display in your practice.

Sign up for the EatRight Ontario electronic newsletter for health professionals

Visit EatRight Ontario to register for the ERO eNews. The monthly update provides information on ERO services, events, new resources, and popular nutrition topics.
EatRight Ontario provides general nutrition information and does not offer individual counselling or give medical advice. Dietitians of Canada acknowledges the financial support of EatRight Ontario by the Ontario government. The views expressed do not necessarily reflect those of the Province.

Want an easy way to tell your clients and colleagues about EatRight Ontario?

Order our promotional materials.

Choose from an array of items that can fit in a purse, a pocket or be displayed in a waiting room.

Call or email from our website to place your order.

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www.facebook.com/EatRightOntario
www.youtube.com/user/EatRightOntario

EatRight Ontario provides general nutrition information and does not offer individual counselling or give medical advice. Dietitians of Canada acknowledges the financial support of EatRight Ontario by the Ontario government. The views expressed do not necessarily reflect those of the Province.
Rabies post-exposure prophylaxis
Holly Browne, Manager, Environmental Health

Under the mandatory reporting requirement of the Health Promotion and Protection Act, physicians must report animal bites, or “any animal contact that may result in rabies” to the Medical Officer of Health as soon as possible. The SDHU provides an on-call system for receiving reportable disease reports 24 hours per day, 7 days a week.

Upon submission of a report, health unit staff perform a risk assessment to assist the physician on the decision to provide rabies post-exposure prophylaxis (rPEP).

The risk assessment considers:
1. The type of exposure (for example, a bite, a non-bite, a bat).
2. The anatomical location of the exposure.
3. The risk of rabies in the animal species involved.
4. The presence of rabies in the area where the incident occurred.
5. The behaviour and health status of the implicated animal.
6. Exposure circumstances (for example, provoked or unprovoked exposure).
7. Rabies immunization status of the animal; and

Rabies post-exposure prophylaxis (rPEP) is not typically required when the offending domestic animal (cat, dog, or ferret) is alive, can be observed for a 10 day period and remains healthy. However, mandatory reporting is still required in these cases.

If the decision to provide rPEP is made, it should be provided as soon as possible, especially for wounds of the head and neck region, and preferably within 24 hours of the exposure. If indicated based on the risk assessment, rPEP should be offered to exposed individuals regardless of the elapsed time interval.

Rabies rPEP in previously unimmunized immunocompetent individuals consists of local wound treatment and cleaning, administration of rabies immune globulin (RabIg), and vaccination. The recommended dose of RabIg is 20 IU/kg of body weight for all age groups, including children, given on the first day of initiation of therapy (Day 0). Vaccine is administered Day 0, 3, 7 and 14.

The Guide provides the complete rPEP schedule, including other groups such as previously immunized and immunocompromised individuals.

It can be found at www.phac-aspc.gc.ca.
WE ARE ON CALL 24/7 FOR REPORTABLE DISEASES

WHAT TO DO

REPORT the animal bite

FILL OUT the Rabies Control Investigation Form at www.sdhu.com

FAX it to the Health Unit 705.677.9607

CALL the Health Unit 705.522.9200, ext. 464

AFTER-HOURS 705.688.4366

AVOID AN ERROR!

1. Administer the vaccination according to the schedule provided in the Canadian Immunization Guide.
2. Administer the entire dose of rabies immune globulin on day 0.
Surveillance of respiratory infections: Early detection for an effective response

Michael King, Epidemiologist, Resources, Research, Evaluation and Development

Acute respiratory infections place a tremendous burden on Ontario’s health care system. It is estimated that the infections listed in Table 1, below, collectively result in over 5.6 million health-care utilization episodes in Ontario each year.

Table 1. Estimated Annual Burden of Certain Infectious Respiratory Diseases, By Pathogen, Ontario

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Number of Cases</th>
<th>Number of Deaths</th>
<th>Years of Life Lost (YLL)</th>
<th>Year Equivalents of Reduced Function (YERF)</th>
<th>Health-Adjusted Life-Years Lost (HALYs)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Streptococcus pneumonia</em></td>
<td>518,703</td>
<td>632</td>
<td>6,475</td>
<td>1,601</td>
<td>8,076</td>
</tr>
<tr>
<td><em>Staphylococcus aureus</em></td>
<td>158,443</td>
<td>268</td>
<td>3,320</td>
<td>400</td>
<td>3,720</td>
</tr>
<tr>
<td>Influenza</td>
<td>621,151</td>
<td>272</td>
<td>2,548</td>
<td>1,076</td>
<td>3,624</td>
</tr>
<tr>
<td>Rhinovirus</td>
<td>1,615,561</td>
<td>5</td>
<td>95</td>
<td>1,615</td>
<td>1,710</td>
</tr>
<tr>
<td>Respiratory syncytial virus</td>
<td>341,471</td>
<td>96</td>
<td>914</td>
<td>397</td>
<td>1,310</td>
</tr>
<tr>
<td>Parainfluenza virus</td>
<td>253,292</td>
<td>59</td>
<td>581</td>
<td>259</td>
<td>840</td>
</tr>
<tr>
<td><em>Haemophilus influenza</em></td>
<td>105,443</td>
<td>62</td>
<td>628</td>
<td>125</td>
<td>753</td>
</tr>
<tr>
<td>Adenovirus</td>
<td>203,393</td>
<td>287</td>
<td>287</td>
<td>150</td>
<td>437</td>
</tr>
<tr>
<td>Coronavirus</td>
<td>461,767</td>
<td>1</td>
<td>23</td>
<td>369</td>
<td>392</td>
</tr>
<tr>
<td>Pneumonia*</td>
<td>61,852</td>
<td>529</td>
<td>5,161</td>
<td>324</td>
<td>5,484</td>
</tr>
<tr>
<td>Upper respiratory infections*</td>
<td>799,472</td>
<td>1</td>
<td>25</td>
<td>327</td>
<td>353</td>
</tr>
<tr>
<td>Acute bronchitis*</td>
<td>83,914</td>
<td>1</td>
<td>9</td>
<td>278</td>
<td>287</td>
</tr>
<tr>
<td>Pharyngitis*</td>
<td>221,030</td>
<td>1</td>
<td>6</td>
<td>220</td>
<td>226</td>
</tr>
<tr>
<td>Otitis media*</td>
<td>213,114</td>
<td>0</td>
<td>0</td>
<td>137</td>
<td>137</td>
</tr>
<tr>
<td>Bronchiolitis*</td>
<td>570</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
*Due to other agents

The early identification of, and response to, cases of infectious respiratory diseases is key to our ability to protect the health of our communities by limiting their spread. For that reason, the Ontario Public Health Standards (OPHS) require the SDHU to conduct surveillance, to interpret and use surveillance data to inform a response to public health risks, and to communicate information on those risks to relevant audiences.

Public health surveillance is defined as the ongoing and systematic collection, collation, and analysis of health-related information that is communicated in a timely manner to all who need to know, so that action can be taken.
For respiratory diseases, the health unit has three sources of data which comprise our surveillance system.

1 REPORTABLE DISEASES

Health unit staff are available to receive notification of suspected or lab-confirmed cases of reportable diseases 24 hours a day, 7 days a week. We follow-up on these reports in accordance with provincial protocols. This may include contacting the ordering physician, the health care facility, and/or the patient for more information.

2 ED VISITS

All hospitals in our area participate in the Real-Time Outbreak Detection System (RODS). Emergency Department (ED) data on patients’ chief complaints at triage are securely uploaded to RODS in real time, which codes the data into various syndromes (e.g., Respiratory; Fever/Influenza-like Illness (ILI); Enteric). Visit counts by syndrome are analysed every 6 hours, and health unit staff are alerted when the rate of visits for a particular syndrome increases statistically. The health unit may follow-up with the hospital for more information, and to provide support as needed to help mitigate the impact of excessive respiratory disease upon the local health care system.

3 ILLNESS-RELATED ABSENTEEISM

Each day during the school year, the health unit receives data on the number of children who are absent due to illness at over 100 elementary schools in our area. These data are analysed by an epidemiologist each morning, and public health nurses follow-up with schools at which a sustained increase in illness-related absenteeism is detected. They collect more information on the nature of the illness, and provide guidance regarding infection control.

YOU CAN HELP

You can help our public health surveillance by ordering appropriate diagnostic laboratory tests if you suspect a respiratory infection in a patient, and by promptly notifying us of cases of reportable disease. Working together, we can better protect the health of the public by limiting the spread of respiratory infections in our community.

QUESTIONS? Contact the Health Unit with any questions you have related to respiratory or other infectious diseases 24 hours a day, 7 days a week.
Treating poverty: A workshop for family physicians
Martha Andrews, Health Promother, Health Promotion

The Sudbury & District Health Unit (SDHU) hosted Treating Poverty – A Workshop for Family Physicians on Tuesday, October 28, 2014 at the Steelworkers Union Hall.

The concept of the workshop was developed by Dr. Gary Bloch, a family physician with St. Michael’s Hospital, who founded and chairs the Ontario College of Family Physicians’ Committee on Poverty and Health, and is a founding member of the advocacy group Health Providers Against Poverty. The workshop was adapted for the SDHU and was co-presented by Drs. Gary Bloch and Amanda Hey. Dr. Hey is a family physician and is currently assisting the SDHU with Clinician Engagement initiatives.

The goal of the three and half hour workshop was to provide primary care providers with a three step approach to intervening into patient’s poverty with the recognition that poverty is a strong determinant of health. This included: an overview of the Ontario and Canada income security systems including a critique on the challenges of accessing and relying on these supports, an introduction to a user-friendly, web-based resource to navigate income support systems, and a discussion of ethical challenges that may arise when helping patients navigate the system.

A total of 27 primary care providers from a variety of disciplines across Northeastern Ontario attended the afternoon workshop. Workshop participants were encouraged to share their experiences and knowledge as they were engaged in a series of discussions related to poverty and the experiences of patients in our northern context. Participants were also provided with resources they could take back to their practices to support their patients and families living in poverty.

We hope that this initiative generates interest and engagement from primary care providers across the north to advocate for comprehensive patient and family well-being. For more information or if you would like to get involved contact Dr. Amanda Hey, by phone at 705.522.9200 ext. 599 or by emailing heya@sdhu.com.
References

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Poverty Intervention Resources:
7 Poverty: A clinical tool for primary care in Ontario: CanadaBenefits.gc.ca
Sudbury & District Health Unit
www.sdhu.com

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Please send your comments, questions, or suggestions to sdhu@sdhu.com or call 705.522.9200.