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Message from the Medical Officer of Health

Dear Colleagues,

Vacation season is upon us, but *The Advisory* isn't taking any time off so that we can provide you with the latest news and information.

We may be in the midst of the summer season, but we're okay looking ahead to the fall—specifically, as we prepare to deliver vaccines to school children throughout our districts. As health care providers, your role is critical in educating parents and families on the importance of adhering to the immunization schedule. To assist you, this issue contains information for your patients to consider when making informed decisions.

Before autumn arrives, however, we still have the scorching summer sun to contend with, not to mention the associated health risks that come with it. Inside you'll find resources to share with your patients to help them reduce the risks that accompany extreme temperatures.

Next we'll take a trip to the chicken coop to talk about health risks that come with owning backyard chickens. This can be overlooked as a source when diagnosing patients with campylobacter or salmonella infection. Finally, we hear from one of our registered dietitians who wants to make your patients aware of the benefits an RD can provide.

Summer is a great time to catch up on some reading, so be sure to add this issue of *The Advisory* to your reading list.

Sincerely,

Dr. Penny Sutcliffe, Medical Officer of Health



Keep your patient's vaccinations running on schedule

→ Niharika Shahi, second year medical student, Northern Ontario School of Medicine

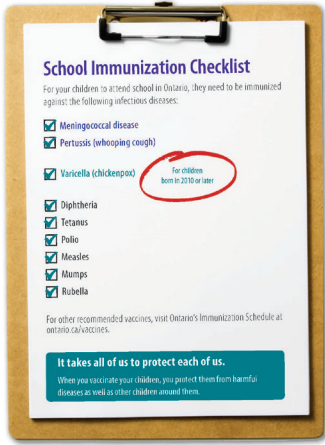
Health care professionals play a vital role in educating and advising parents during the decision-making process of whether or not to immunize their child.¹

For the health of your pediatric patients, ensure that you are providing unbiased, evidence-based recommendations regarding childhood vaccines. Immunizations have saved more lives than any other health intervention in Canada by significantly reduced morbidity and mortality in children.²

Delaying childhood immunizations can put children and other susceptible populations (e.g. those who are immunocompromised), at risk of contracting vaccine-preventable diseases.

Avoid school suspensions: follow the childhood immunization schedule for your patients

Failure to provide vaccines as per schedule can lead to school suspension and registration to school may not be completed until outstanding vaccines are provided.



The vaccines that can lead to suspension, if not given according to the schedule, are:

- diphtheria, tetanus, pertussis (DTaP)
- polio
- measles, mumps, rubella (MMR)
- meningococcal (Men-C)
- varicella

Hesitant about varicella vaccination? Consider this:

Unimmunized children exposed to varicella are at risk of more than just an itchy rash. Complications include secondary bacterial skin and soft tissue infections, bacteremia, pneumonia, osteomyelitis, septic arthritis, necrotizing fasciitis, toxic shock-like syndrome, cerebellar ataxia, stroke and encephalitis. The risk of severe invasive group A streptococcal infection in previously healthy children is increased 40- to 60-fold. Teens, adults and those with immunocompromising conditions experience higher rates of pneumonia, encephalitis and death. Transmission of the virus to pregnant women can result in congenital varicella syndrome (two per cent risk if infection occurs between 13–19 weeks of gestation) as well as neonatal varicella (if occurring five days before to two days after birth, associated with severe neonatal varicella in up to 30 per cent of infants with high case fatality for the newborn).³

Uncertain about providing multiple vaccines in one visit? Consider this:

Children may be required to receive more than one vaccine at a time as per the childhood immunization schedule. Human infants can respond to about 10 000 different antigens at any one time. A dose of vaccine is unlikely to challenge the immune system any differently from other foreign antigens in the daily load entering the body, even in a two month old baby.⁴

Refer to the *Canada Immunization Guide* for more information, including Table 3 regarding alternative sites of vaccine administration: <https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-1-key-immunization-information/page-8-vaccine-administration-practices.html#t3>.

Rotavirus updates: revised schedule on its way

The Ontario Ministry of Health and Long-Term Care is currently revising the Publicly Funded Immunization Schedule for childhood vaccines (<http://www.health.gov.on.ca/en/pro/programs/immunization/schedule.aspx>). You can expect to see the rotavirus vaccine (Rotarix®), currently recommended at two and four months, to be replaced with RotaTeq®, which will have a three-dose schedule at two, four, and six months. In addition, there will be information provided on how to complete the series if your paediatric patient has already received a dose of Rotarix® prior to this change (<https://www.phsd.ca/professionals/health-professionals/advisory-alerts-health-care-professionals/rotavirus-vaccine-changes>). Stay tuned for further communications once the schedule has been revised.

Did you know immunization records are accessible online?

Immunize Connect Ontario (ICON) is a web interface that allows the public to securely report immunization data to Public Health Sudbury & Districts and look up their immunization records.

Online access to immunizations is through our website at phsd.ca (enter “immunization records” in the search bar and it’ll appear as the top result).

For more information on the childhood immunization schedule for pediatric patients under your care, please visit <https://www.immunize.ca/recommended-immunizations-children> or contact the Clinical Services Division at Public Health Sudbury & Districts at 705.522.9200, ext. 301.



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Beat the heat!

✦ Jane Bulloch, Health Promoter, Public Health Sudbury & Districts

✦ Niharika Shahi, second year medical student, Northern Ontario School of Medicine

Heat waves and extreme temperatures are a significant risk to health

Only weeks ago, 74 deaths were linked to a heat wave in Quebec.¹

With climate change, the frequency, intensity, and duration of hot weather events are expected to increase, as are the adverse health effects.² Clinicians can prevent and reduce morbidity and mortality by understanding the risks of heat-related illness and by encouraging patients (and their caregivers) to practice protective behaviours.

Heat-related illnesses: heat exhaustion and heat stroke

Heat exhaustion is a milder condition than heat stroke, presenting with non-specific signs and symptoms and mild pyrexia. Initial treatment of heat exhaustion involves hydration and stabilization in a cool area (air-conditioned, if possible). Evaporative cooling can be initiated by wetting the skin and applying a fan. When treated, symptoms often resolve within 30 minutes, or sometimes up to 2 to 3 hours.³

Without treatment and relief from the heat, symptoms of heat exhaustion can progress to heat stroke, **which should be treated as a medical emergency**. Patients experiencing heat exhaustion who develop signs of central nervous system dysfunction may be experiencing heat stroke. Do not rely on peripheral temperature measurements as these can be misleading. In addition, anhidrosis is not pathognomonic for heat stroke as those experiencing exertional heat stroke may still sweat. Patients or their caregivers should be advised to call 911 and engage in treatment for heat exhaustion until emergency services arrive.³

Some populations are at greater risk of heat-related illness

Individuals over the age of 60 are at especially high risk, with 82–92 per cent of excess mortality occurring in this group. The risk of heat-related illness is compounded in those with co-morbidities such as obesity, cardiovascular disease, respiratory disease, and diabetes.⁴

Babies and young children, pregnant women, and people working or exercising in the heat are also at greater risk. Other factors that increase risk of hyperthermia include social isolation, living in

low-income or poverty, lack of air-conditioning and homelessness.⁵

Some medications can increase the health risks from extreme heat by impacting the body's ability to thermoregulate.

These include but are not limited to the following:

- ✦ antiadrenergics and β -blockers
- ✦ anticholinergics
- ✦ antidepressants
- ✦ antihistamines
- ✦ antiparkinsonians
- ✦ antipsychotics
- ✦ diuretics
- ✦ sympathomimetics
- ✦ drug classes such as cholinesterase inhibitors, antiarrhythmics and calcium blockers²

Counsel your patients on keeping safe during hot weather

Physicians can help patients to identify their own risk factors and encourage them to utilize the following protective behaviours:

- ✦ Give the body a break from the heat by spending time in air-conditioned places such as the mall or library.

- Take a cool bath or shower, or cool down with wet towels placed on the neck or underarms.
- Practice evaporative cooling. Wet the skin and sit in front of a fan.
- Drink plenty of water, even if not feeling thirsty.
- If working or exercising outdoors, take plenty of rest and water breaks, preferably in the shade or an air-conditioned area.
- Plan outdoor activities during cooler parts of the day.

Learn more: continuing professional development

An initiative out of McMaster University, Machealth (<https://machealth.ca/>) hosts free, online certified programs for Canadian health care professionals. The Extreme Heat Events program provides information and tools on the dangers of extreme heat, and how to properly prevent, diagnose and treat heat-related illnesses.

Information on other health hazards and emergencies

Consult www.phsd.ca for information on health hazards and emergency preparedness.

Resources for patients

- Public Health Sudbury & Districts – How to beat the heat: <https://www.phsd.ca/health-topics-programs/emergencies-being-prepared/extreme-weather/extreme-heat/beat-heat>
- Health Canada – It’s way too hot! Protect Yourself from Extreme Heat: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/climate-change-health/way-protect-yourself-extreme-heat-2011-health-canada-brochure.html>
- Health Canada – You’re active in the heat. You’re at risk! Protect Yourself from Extreme Heat: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/climate-change-health/you-active-heat-you-risk-protect-yourself-extreme-heat-2011-health-canada-brochure.html>
- Health Canada – Keep children cool! Protect Your Child from Extreme Heat: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/climate-change-health/keep-children-cool-protect-your-child-extreme-heat-2011-health-canada-brochure.html>

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Backyard chicken owners at an increased risk of salmonella and campylobacter infection

→ Brad Manning, Public Health Inspector, Public Health Sudbury & Districts

Keeping backyard chickens is a trend in urban and rural areas that may be overlooked as a source when diagnosing a patient with Campylobacter and/or Salmonella infection.¹

Studies have found that those who own backyard chickens are at an increased risk of acquiring these illnesses due to limited awareness of the association between the infections and live poultry contact, as well as means of protecting themselves from these risks.^{1,3}

High-risk behaviours that can place your patients and their family members at risk include:^{1,3}

- keeping chickens in the home especially the kitchen
- holding, kissing, and cuddling chickens
- handling their equipment, their housing and cleaning their wastes
- handling and removing clothing contaminated with fecal material

Salmonellosis

Backyard chickens and other poultry act as reservoirs for Salmonella.² Salmonellosis is a bacterial disease that can appear 6–72 hours after exposure and presents with sudden onset of diarrhea, abdominal pain, fever, nausea, and often vomiting.^{2,5}

Most of these symptoms end within four to seven days, with most people recovering completely on their own. However, some may have a more serious illness that requires hospitalization or may lead to long-lasting health effects or death.⁶

Numerous serotypes of Salmonella are pathogenic to animals and humans. In North America, Salmonellosis is classified as a food borne illness with the predominant mode of transmission being through ingestion of food or water contaminated by the feces of animals or through contact with infected persons. Transmission by direct and indirect contact with infected birds and reptiles can also occur.^{2,5} Salmonella can be carried in the intestines of poultry or their eggs without symptoms of illness and can be transferred onto feathers and the surrounding environment.³

Campylobacteriosis

Campylobacteriosis is an acute zoonotic bacterial disease with common symptoms including diarrhea (frequently bloody), abdominal pain, malaise, fever, nausea or vomiting. Symptoms tend to present within two to five days after exposure and may persist for one to two weeks; however, some cases may persist for longer or relapses may occur.

Campylobacter is transmitted through ingestion of undercooked meat (commonly poultry), other contaminated food and water, or raw milk. There is also potential for transmission of the Campylobacter organism through contact with infected pets, farm animals, such as backyard chickens, or infected infants. Organisms may be excreted in the infected person's stool for two to seven weeks without antibiotics, therefore, leading to a longer period of communicability.^{2,4}



Prevention and treatment: Educate backyard chicken owners on risk reduction measures such as:

- avoiding close contact
- practising good hand hygiene
- having designated clothing for handling or cleaning the chickens and their housing or equipment, and
- being aware of how transmission may occur can reduce the risk of acquiring or transmitting poultry related illnesses.³ Treatment for uncomplicated gastroenteritis is not indicated except for rehydration and electrolyte replacement with oral rehydration solutions.²

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Healthy eating and nutrition information for your patients

✦ Bridget King, MHS, RD, Public Health Nutritionist

Registered dietitians are a credible source for healthy eating and nutrition information

In Ontario, the College of Dietitians of Ontario regulates registered dietitians. Your patients may benefit from healthy eating information and advice. UnlockFood.ca and Telehealth Ontario provide access to registered dietitians at no cost.

UnlockFood.ca

UnlockFood.ca (formerly EatRightOntario.ca) is a bilingual website written and reviewed by registered dietitians. Find information on healthy eating and nutrition through the lifecycle.

Popular content includes information, videos, and recipes related to:

- ✦ diabetes prevention
- ✦ digestive concerns
- ✦ heart disease
- ✦ infant feeding
- ✦ healthy eating and picky eaters

Telehealth Ontario

[Telehealth Ontario](#) is a free, confidential service offered in English and French with translation support for some other languages. Callers can now access registered dietitians for food and healthy eating advice at:

1.866.797.0000 (toll-free) or
1.866.797.0007 (toll-free TTY).



Public Health Sudbury & Districts

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