

## **PUBLIC HEALTH MATTERS** A Newsletter for Healthcare Professionals

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Issue 7



# Message from the Medical Officer of Health/Chief Executive Officer

We are hoping you find the spring edition of our newsletter informative.

Recently, we have been undertaking a Client Satisfaction Survey within several of our programs and as most HCP rarely visit our premises, you have not been asked to complete a survey. However, I would love to hear your comments about hours of service, quality of service from the program you interact with, ease of access, privacy and any other complaint or comment you might have. Please email me directly at <u>spruytm@timiskaminghu.com</u> so that we may incorporate your feedback into our planning process.

Dr. Marlene Spruyt Medical Officer of Health & Chief Executive Officer

## **Immunization News**

#### **Pediacel or Quadracel??**

The catch-up portion of the newly revised schedule, under the '2nd Visit' (Page 2), indicates that DTaP-IPV (Quadracel or Infanrix-IPV) should be given to children who are between 15 months to 4 years of age. Due to a supply shortage of this product, which is expected to continue through into 2016, the ministry is requesting health care providers use DTap-IPV-Hib (Pediacel) instead.

Until adequate supplies can be secured, please reserve the use of DTaP-IPV (Quadracel/Infanrix-IPV) for 5 and 6 year olds who require doses for their primary series. You will be advised when the supply issue has been resolved so the more appropriate vaccine indicated in the "Catch-up Schedule 1" can be used for those 15 months to 4 years old.

## New Immunization Schedule Available

The MOHLTC has released an updated version of the Publically Funded Immunization Schedule for Ontario and the online version is available at <u>http://www.health.gov.on.ca/en/pro/</u> programs/immunization/docs/immunization\_schedule.pdf

There are not currently any hard copies available and we suggest you keep the link on file. If you plan to print copies of the 8 page document, make sure you have a magnifier available or adjust the settings to enlarge the print. This update incorporates many of the minor adjustments, eligibilities made over the last 4 years.

There are no new immunizations or major changes.

## **Vaccine Inventory Going Electronic!**

The Ontario Government Pharmacy the supplier of all publically funded vaccines to Ontario health care providers is adopting a new inventory system that is integrated with the new Panorama Vaccine database. All Health Units will be adopting the system and this is necessitating some alteration in delivery dates while existing inventory is entered into the new system. The process for ordering will also change slightly so stay tuned for more information.

## **Other News**

#### WHAT IS RADON?

Radon is a colourless, odourless, radioactive gas that occurs naturally in the environment. It comes from the natural breakdown of uranium in soils and rocks. When radon is released from the ground into the outdoor air, it is diluted and is not a concern. However, in enclosed spaces like homes, it can sometimes accumulate to high levels, which can create a health risk.



The current Canadian guideline for radon in indoor air for dwellings is 200 becquerels per cubic metre (200 Bq/m3). This was recently reduced from 800 Bq/m3.

#### WHAT ARE THE HEALTH EFFECTS OF RADON

Extensive epidemiological evidence from studies of underground uranium miners, complemented by recent residential radon studies in Europe and North America, have shown that there is a measurable risk of developing lung cancer from radon exposure at levels commonly found in residential homes. This risk exists for both smokers and non-smokers, although malignancy from radon exposure is especially likely in cigarette smokers. By informing patients about the health risk posed by radon exposure and encouraging homeowners to test their homes to determine radon levels, health professionals can have a positive impact on the national effort to prevent radoninduced lung cancer.

#### **HOW CAN RADON INDUCE CANCER?**

If inhaled, radon decay products can become deeply lodged in the lungs, where they emit ionizing radiation which can penetrate the cells of mucous membranes, bronchi, and other pulmonary tissues. The ionizing radiation energy affecting the bronchial epithelial cells is believed to initiate the process of carcinogenesis. Although radon-related lung cancers are mainly seen in the upper airways, radon increases the incidence of all histological types of lung cancer, including small cell carcinoma, adenocarcinoma, and squamous cell carcinoma.

An individual's risk of getting lung cancer from radon depends mostly on three factors: the level of radon, the duration of exposure, and their smoking habits. Either smoking or radon exposure can independently increase the risk of lung cancer; however, exposure to both greatly enhances that risk.

#### **RISK OF DEVELOPING LUNG CANCER FROM RADON**

The risks are greater for smokers and those exposed to secondhand smoke. The lifetime risks listed in the table on the following page represent the risks of developing lung cancer due to radon exposure and for smokers the combined risk of tobacco use and radon exposure. Non-smokers exposed to radon at the new guideline level of 200 Bq/m3 have a 2% lifetime chance of developing lung cancer. For a smoker, this risk increases to 17% at 200 Bq/m3.

#### LIFETIME RISKS TO A SMOKER EXPOSED TO RADON

Lung cancer risk for lifetime exposure to radon at 800 Bq/m <sup>3</sup>	30%
Lung cancer risk for lifetime exposure to radon at 200 Bq/m <sup>3</sup>	17%
Lung cancer risk from smoking only	<b>12%</b>

#### LIFETIME RISKS TO A NON-SMOKER EXPOSED TO RADON

Lung cancer risk for lifetime exposure to radon at 800 Bq/m <sup>3</sup>	5%
Lung cancer risk for lifetime exposure to radon at 200 Bq/m <sup>3</sup>	2%
Lung cancer risk from smoking only	1%

To learn more connect to this on-line learning module; https://machealth.ca/programs/radon/

#### Gonorrhea and Chlamydia Treatment

Reminder from the Sexual Health Team:

Our Sexual Health Clinics provide free and confidential services for men and women including STI testing and free treatment.

Below are links to specific treatment for Gonorrhea and Chlamydia respectively.

Guidelines for Gonorrhea in Ontario changed as of 2013, please refer to this guidelines.

Guidelines for

refer to this

www.phac-

eng.php

aspc.gc.ca/std-

mts/sti-its/cgsti-

Idcits/section-5-2-

Chlamydia, please

guidelines; http://



Table 3. Adults (non-pregnant and non-lactating): urethral, endocervical, rectal, conjunctival infection

Preferred	Alternative
<b>Doxycycline</b> 100 mg PO bid for 7 days [A-I]	Ofloxacin 300 mg PO bid for 7 days     [B-II]
OR	OR
<b>Azithromycin</b> 1 g PO in a single dose if poor compliance is expected <sup>2</sup> [A-I]	<ul> <li>Erythromycin 2 g/day PO in divided doses for 7 days<sup>[E]</sup>[B-II]</li> <li>OR</li> </ul>
	<ul> <li>Erythromycin 1g/day PO in divided doses for 14 days<sup>1</sup>[B-l]</li> </ul>

If vomiting occurs more than 1 hour post-administration, a repeat dose is not required.

Erythromycin dosages refer to erythromycin base. Equivalent dosages of other formulations may be substituted (with the exception of the estolate formulation, which is contraindicated in pregnancy). If erythromycin has been used for treatment, test of cure should be performed 3-4 weeks after completion of therapy.

## **Measles or Mumps**

#### SUSPECT MEASLES OR MUMPS?.....REMEMBER TO ORDER PCR

Reporting suspect infectious diseases as per the Reportable Disease List is required under the Health Protection and Promotion Act (HPPA). It is important to determine whether a suspect individual has the disease in a timely manner to avoid undue anxiety, unnecessary isolation and to determine if there is a true need for further contact tracing.

For most viral infections, pre-and-post serology was the traditional method of determining if the individual was actually infected with a disease. Presence of IgM early in the disease and seroconversion in the convalescent stage confirmed a true infection.

The timing and the interpretation of the serology results, however, becomes more complex in the individuals who have been previously immunized.

PCR testing that can identify trace amounts of viral DNA or RNA can simplify the diagnostic process and should be ordered along with the acute serology at initial presentation. If the assay identifies presence of virus, further molecular analysis can be performed to differentiate between various virus strains and contribute to identification of the source. Additionally, virus particles may remain in various body fluids for longer time thereby allowing a diagnosis after the ideal window for acute serology has passed. Confirmation of infection by PCR testing may make it unnecessary for the individual to return for convalescent lab work. In most cases, PCR testing can be performed on throat swabs or on urine and results are generally available within 3-5 days.

We have created the following table to assist you in the appropriate timing for various laboratory tests.

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Infectious Disease	Laboratory Testing	Specimen Collection Period
Measles	-Acute serology- IgM +IgG	initial visit (within 7 days of rash onset)May be negative if collected very early(<3days)
	-RT-PCR	
	-Nasopharyngeal swab, throat swab,	within 4-7 days after rash
	and urine	*Note: urine can be collected up to 14 days after symptom onset
	-Convalescent serology	7-10 days after rash onset and at least 5 days after acute serology
Mumps	-Acute serology	As above
	-RT-PCR	At initial visit or:
	-Throat/buccal swab, urine, of CSF	Throat: up to 9 days of symptom onset Urine: up to 14 days of symptom onset
		CSF: in cases of aseptic meningitis
	-Convalescent Serology	7-10 days after symptom onset
Rubella	PCR-urine, throat, nasopharyngeal swab	Within 5 days of symptom onset
	Serology	Antibodies develop 3-5 days post symptom onset. If results yield non-reactive or indeterminate complete a convalescent test day 7-10
Varicella	Serology	Antibodies develop 3-5 days post symptom onset. If non-reactive or indeterminate complete a convalescent test day 7-10
	V-7 viral culture	Initial visit
	-Swab of lesions/ vesicle fluid	
Pertussis	PCR-Nasopharyngeal or throat swab or tracheal aspirate	initial visit
	Note: serology is no longer accepted	

**Guide to Laboratory Testing & Infectious Diseases** 

More detailed information pertaining to signs and symptoms, pathology of the disease, and required testing to identify suspect and confirmed cases can be found under the Ontario Public Health Standards Infectious Disease Appendix A & B http://www.health.gov.on.ca/en/pro/programs/publichealth/oph\_standards/docs/measles\_chapter.pdf.

Detailed information on laboratory testing for the corresponding infectious disease, can be found under the laboratory testing directory on the Public Health Ontario website http://www.publichealthontario.ca/EN/Pages/ default.aspx

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