COFM Immunization Policy 2016

Council of Ontario Faculties of Medicine

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COUNCIL OF ONTARIO UNIVERSITIES
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COFM Immunization Policy – 2016

This policy applies to all medical learners (undergraduate medical students and postgraduate residents and fellows) attending an Ontario medical school and performing clinical activities in Ontario. Undergraduate medical learners who do not comply with the immunization policy may be excluded from clinical activities. Residents who do not comply with the immunization policy may be delayed in starting residency. Ontario medical learners doing international clinical placements will require an additional assessment. A travel medicine consultation should take place at least eight weeks before their placement. Additional immunizations may be necessary depending on the location of their placement.

This policy is an evidence-based consensus document developed by an expert working group on behalf of the six Ontario medical schools and faculties. The policy closely complies with the current Ontario Hospital Association immunization recommendations; however, immunization requirements of individual hospitals or clinical institutions may vary. The policy allows some flexibility to enable health care practitioners to select among certain options according to their professional judgment. All Ontario medical schools agree that regardless of option chosen in a particular clinical situation, learners of any Ontario medical school will have their immunization status accepted as long as this policy was followed.

The following investigations must be completed before entering a clinical placement. In the case of the hepatitis B immunizations, the series must be started before the learner enters a clinical placement and completed by the end of the first academic year. The medical learner may incur costs associated with some immunizations.

Tuberculosis:

a) Medical learners whose tuberculin skin test (TST) status is unknown, and those previously identified as tuberculin negative, require a baseline two-step TST with PPD/5TU, unless they have:

- documented results of a prior two-step test, or
- documentation of a negative TST within the last 12 months

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in which case a single-step test may be given[1]. If a learner has a previously documented positive tuberculin skin test, the learner should not receive another tuberculin skin test, see (d).

b) Medical learners who have had previous Bacille Calmette-Guerin (BCG) vaccine may still be at risk of infection and should be assessed as in (a) above. A history of BCG vaccine is **not** a contraindication to tuberculin testing.

NOTE: Interferon Gamma Release Assays (IGRAs) are only recommended for patients with a prior history of BCG and rarely in patients unable to return in 72 hours for TST reading. In these situations IGRAs may be used instead of TST; they should never be used in conjunction with TST. Patients with a positive IGRA should be followed up as per the positive TST protocol.

c) Contraindications to tuberculin testing are:

- history of severe blistering reaction or anaphylaxis following the test in the past;
- documented active TB;
- clear history of treatment for TB infection or disease in the past;
- extensive burns or eczema such that there is no clear site to place the TB skin test;
- major viral infection (persons with a common cold may be tested; and/or
- live virus vaccine in the past month.

NOTE: Pregnancy is NOT a contraindication for placement of a Mantoux skin test.

d) For medical learners who are known to have a previously documented positive tuberculin skin test, for those who are found to be tuberculin skin test positive, or for whom tuberculin skin testing is contraindicated as in (c) above, further assessment should be done by Health Services under the direction of a physician, or by the learner's personal physician.

e) Chest X-rays should be taken on medical learners who:

[1] *CDC Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health Care Settings, 2005*, **MMWR, 2005:54; RR-17.** *OHA/OMA Communicable Disease Surveillance Protocol Page 7 Tuberculosis Revised August 2014*

i. are TB skin test positive and have never been evaluated for the positive skin test;

ii. had a previous diagnosis of tuberculosis but have never received adequate treatment for TB; and/or

iii. have pulmonary symptoms that may be due to TB.

If the X-ray suggests pulmonary TB, the medical learner should be further evaluated including sputum smear and culture to rule out the possibility of active tuberculosis and documentation of the results of this evaluation should be in place before s/he is cleared for clinical placement. Once active tuberculosis has been ruled-out, strong consideration should be given to treatment of latent TB infection (LTBI).

All TB skin test positive medical learners should be advised to report any symptoms of pulmonary TB as soon as possible to the Health Services, and should be managed using current guidelines.

Active cases of TB, those suspected of having active TB disease, tuberculin skin test converters and those with a positive TB skin test are reportable to the local Medical Officer of Health. Learners with active TB or suspected of having active TB should be reported as soon as possible to the Medical Officer of Health. Occupationally acquired active TB and LTBI are also reportable to Workplace Safety and Insurance Board (WSIB) and the Ontario Ministry of Labour.

Annual screening for TB may be necessary in health care settings with a high incidence of active TB disease. Health Services should consult the local Medical Officer of Health and local hospitals regarding the incidence of active TB disease in the region and the need for continuing TB surveillance of medical learners. A review of admissions through health records will determine if the setting is a high risk facility, as defined by Public Health Agency of Canada, i.e. $\geq$ 6 cases of active TB disease per year, requiring active surveillance. Learners who are placed in high risk units or areas must report to Health Services for follow-up assessment at least 8 weeks after completing the placement or elective.

Varicella/Zoster:

Medical learners must demonstrate evidence of immunity. Medical learners can be considered immune to varicella/zoster if they have:

- a health care provider diagnosis of varicella that is laboratory confirmed or herpes zoster that is laboratory confirmed **OR**

- VZV antibodies, using a sensitive/specific serological test such as immunofluorescent antibody (IFA), Latex agglutination (LA) or the ELISAIgG, **OR**

- documentation of 2 doses of a varicella—containing vaccine

Varicella vaccine is required for non-immune medical learners. If after vaccination a varicella-like rash localized to the injection site develops, the person may continue to work if the rash is covered. A small number (approximately 5.5% after the first injection and 0.9% after the second injection) of vaccinated persons will develop a varicella-like rash not localized to the injection site; these persons should be excluded from work with high-risk patients (e.g., children, newborns, obstetrical patients, transplant patients, oncology patients) until lesions are dry and crusted, unless lesions can be covered. The effects of varicella vaccine on the fetus are unknown; therefore, pregnant women should not be vaccinated.

> *Natural disease induces an IgG varicella antibody that is measurable in commercial laboratories. People who have received varicella vaccination generally do not demonstrate an IgG to varicella zoster virus (VZV). The two antibody tests used in vaccine studies are not commercially available, so measuring vaccine-induced immunity is not possible at present.*

Measles:

Medical learners must demonstrate evidence of immunity. Only the following should be accepted as proof of measles immunity:[2]

- documentation of 2 valid doses of live measles virus vaccine on or after the first birthday, **OR**
- laboratory evidence of immunity IgG

If this evidence of immunity is not available, to meet the above requirements the medical learner must have (a) measles immunization(s), in the form of a trivalent measles-mumps-rubella (MMR) vaccine, unless the learner is pregnant. Females of child-bearing age must first assure their health care practitioner that they are not pregnant, and will not become pregnant for one month after receiving this vaccine.

Mumps:

Medical learners must demonstrate evidence of immunity. Only the following should be accepted as proof of mumps immunity:[3]

- documentation of 2 valid doses of live mumps virus vaccine on or after the first birthday, **OR**

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[2] National Advisory Committee on Immunization (NACI) **Canadian Immunization Guide 7th edition, 2006,** Public Health Agency of Canada. OHA/OMA Communicable Disease Surveillance Protocols for Varicella/Zoster (Chickenpox/Shingles) Revised November 2012 and Measles Revised May 2014

[3] National Advisory Committee on Immunization (NACI) **Canadian Immunization Guide 7th edition, 2006,** Public Health Agency of Canada. OHA/OMA Communicable Diseases Surveillance Protocols – Mumps Revised May 2013,

- laboratory evidence of immunity.

If this evidence of immunity is not available, the medical learner must have (a) mumps immunization(s) (if they had no previous doses of mumps-containing vaccine, they need two doses of MMR; If they had one previous dose of mumps-containing vaccine, they need one dose of MMR), in the form of a trivalent measles-mumps-rubella (MMR) vaccine, unless the learner is pregnant. Females of child-bearing age must first assure their health care practitioner that they are not pregnant, and will not become pregnant for one month after receiving this vaccine.

Rubella:

Medical learners must demonstrate evidence of immunity. Only the following should be accepted as proof of rubella immunity[4]:

- documentation of one valid dose of live rubella vaccine on or after their first birthday; **OR**

- laboratory evidence of immunity.

If this evidence of immunity is not available, the medical learner must have a rubella immunization, in the form of a trivalent measles-mumps-rubella (MMR) vaccine, unless the learner is pregnant. Females of child-bearing age must first assure their health care practitioner that they are not pregnant, and will not become pregnant for one month after receiving this vaccine.

Hepatitis B:

Documented evidence of a complete series of hepatitis B immunizations, in addition to testing for antibodies to HBsAg (Anti-HBs) at least one month after the vaccine series is complete is required. Medical learners who have received a complete series of hepatitis B vaccine and who have had an inadequate serological response should be tested for surface antigen (HBsAg) to determine if the reason for their non-response is because they are already a hepatitis B virus carrier. If the blood test identifying an inadequate serological response (anti-HBs<10IU/L) was done one to six months after completing the vaccination series and the learner tests negative for HBsAg, the learner should receive an additional series. If the initial negative antibody result (anti HBs<10 IU/L) was done more than six months[5] after completing the vaccination series, and the learner is negative for HBsAg, a test for serological response (anti HBs) could be done after the first booster in the second series. If the anti-HBs is >= to 10IU/L, no further doses are needed. If after the first dose an inadequate serological response is still found, continue with the remaining dose(s) and repeat the serology test (anti-HBs) one month after completing the second series. The sequence may be reversed, i.e., the “booster” test

[4] OHA/OMA Communicable Diseases Surveillance Protocols – Rubella Revised May 2013,
[5] American Academy of Pediatrics **Red Book**, 2012

dose may be done before testing for HBsAg, if this is more appropriate considering the learner demographics.

If the anti-HBs titre is below 10 IU/L one month after completing the second series, the person is considered a non-responder and must be counselled to be vigilant in preventing and following-up after needle stick injuries or any other potential exposure to Hepatitis B.

Routine booster doses of vaccine are not currently recommended in persons with previously demonstrated antibody as immune memory persists even in the absence of detectable anti-HBs, however periodic testing should be conducted in hepatitis B responders who are immunosuppressed to ensure they are maintaining their anti-HBs titre.

Polio:

Documented history of a primary series is requested (oral included). In the absence of documentation of an original series, the learner should receive an adult primary series consisting of at least three doses.

Tetanus/Diphtheria:

Documented history of a primary series and dates of boosters are requested. In the absence of documentation of an original series, the learner should be offered immunization with a full primary series. If the most recent booster is not within the last 10 years, a booster must be given. If a Tdap (Adacel Vaccine) has not been given as an adult (18+), this booster should be a Tdap.

Acellular Pertussis:

A single dose of Acellular Pertussis in the form of a Tdap (Adacel vaccine) is given if not previously received as an adult (18+), in place of one Td booster. There is no contraindication in receiving Tdap in situations where the learner has had a recent Td immunization.

Influenza:

Annual influenza vaccination is strongly recommended by December first annually. Medical learners who choose not to have an annual influenza vaccination should be notified that hospital policies may preclude them from clinical placements or require antiviral prophylaxis and immunization in the event of an influenza outbreak. The National Advisory Committee on Immunization (NACI) NACI considers the provision of influenza vaccination to be an essential component of the standard of care for all health care workers (HCW) for the protection of their patients. This includes any person, paid or unpaid, who provides services, works, volunteers or trains in a health care setting.

Therefore, HCWs who have direct patient contact should consider it their responsibility to provide the highest standard of care, which includes annual influenza vaccination. In the absence of contraindications, refusal of HCWs who have direct patient contact to be immunized against influenza implies failure in their duty of care to patients.