Health Sciences North
Horizon Santé-Nord

OCCUPATIONAL HEALTH AND SAFETY SERVICE

MEDICAL DIRECTIVE

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TITLE: **VACCINE ADMINISTRATION**
MD OHSS 04

Document Owner: Occupational Health Nurse	**Name:** Elaine McDonald
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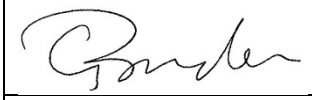
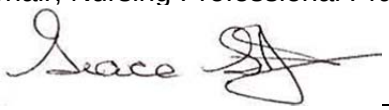
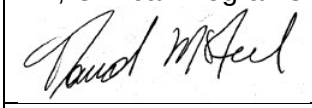
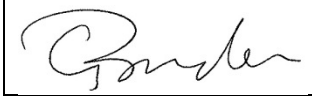
Stakeholder Consultation and Review: Pharmacy and Therapeutics Committee	**Date:** April 6, 2016
Medical Advisor, OHSS 	March 3, 2016
Chair, Nursing Professional Practice Council 	April 21, 2016
VP, Clinical Programs and CNO 	April 21, 2016
Approval: Dr. Chris Bourdon Chair, Medical Advisory Committee 	**Date:** May 17, 2016

What

To administer the following vaccinations to health care workers (HCWs) - including HSN employees, physicians, volunteers, students and contract workers - for active immunization in the prevention of disease:

- Tetanus Diphtheria Adsorbed (TD)
- Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccine Adsorbed (Tdap)
- Hepatitis B
- Combined Hepatitis A and B
- Measles Mumps Rubella
- Seasonal Influenza vaccine

Who

- Nurses working for the Occupational Health and Safety Service (OHSS) at HSN
- Nurses employed by HSN and designated as volunteers (nurse volunteers) in the administration of vaccinations:
    - During the HSN-OHSS Seasonal Influenza Immunization Campaign

- In response to a communicable disease outbreak management strategy at HSN

Where

HSN's OHSS and locations within HSN used by OHSS nurses and/or nurse volunteers for the purpose of administering vaccines.

When

See Appendices A-F for vaccine-specific clinical criteria and orders.

The OHSS immunization program is implemented in accordance with the following HSN policies:

- Health Care Worker Communicable Diseases Surveillance Program
- Health Care Worker Influenza Management
- Pre-Placement Health Review

Contraindications and Risks

See Appendices A-F for vaccine-specific contraindications and risks.

Added Skills

The OHSS nurse must be competent to:

- Assess staff to determine that they do not have symptoms that would contraindicate/delay administration of any of the vaccines
- Communicate the contraindications, warnings and precautions for administration of any of the vaccines as per this medical directive and the current product monograph
- Obtain informed consent
- Ensure the "rights" of medication administration.

The OHSS nurse must also review and comply with the following medical directives:

- MD OHSS 06 - Administration and Dispensation of Over the Counter Medications
- MD OHSS 07 - Administration of Epinephrine

Nurse Volunteers (NV)

- Nurses employed at HSN (outside of the OHSS) who register to participate in the HSN Nurse Volunteers Program must complete the HSN Nurse Volunteer (NV) Vaccine Administration Certification Program prior to receiving certification to administer vaccines to HCWs at HSN.
- Re-certification is required annually.
- NVs are sanctioned through the aforementioned program to administer vaccines to HCWs only in accordance with this medical directive. Any expansion of the scope of practice would be under the leadership and direction of clinical programs.
- NVs must act in accordance with legal and high ethical standards in all aspects of immunization practice.

Documentation

The OHSS nurse will document the following information in the OHSS electronic health record (Parklane database):

- Informed and signed consent
- Vaccine

  - Brand/manufacturer
  - Lot number
  - Expiry date
  - Date/time given
  - Dose given
  - Route of administration
- Adverse reactions (if any) and notification of same to the local Public Health Agency Medical Officer of Health via the Adverse Event to Immunization Form (AEFI)
- Documentation of further outcomes/results from implementation of medical directive
- Signature and credentials
- Medical directive name and number

Nurses certified as HSN NV for vaccine administration will provide the OHSS with the HCW's completed and signed Consent to Immunization forms for the purpose of data entry into the HCWs electronic chart (Parklane database).

Consultation and References

Primary Contact
Dr. Chris Bourdon, OHSS Medical Advisor

References
Anaphylaxis Management. Public Health Agency of Canada, 2013.

Canadian Immunization Guide

Canadian Immunization Guide – Evergreen Document - Vaccine Administration Practices.

HSN Health Care Worker Influenza Management policy

HSN Health Care Worker Communicable Diseases Surveillance Program policy

HSN Medical Directives (MD OHSS 06 and MD OHSS 07)

Immunization Competencies for Health Professionals, Public Health Agency of Canada, 2008.

National Advisory Committee on Immunization (NACI) Public Health Agency, Annual Statement.

OHA/OMA Communicable Disease Protocols

Vaccine Storage and Handling Guide. 2013.

PHYSICIAN APPROVALS
The following physicians have authorized patient care in accordance with this Medical Directive.

Physician Name	Signature	Date
Dr. Chris Bourdon		March 3, 2016

APPENDIX A

Tetanus and Diphtheria Toxoids Adsorbed (TD) Vaccine

Clinical Criteria

Indicated for active immunization in the prevention of tetanus and diphtheria and may be used for both primary immunization and for boosters. Persons who have had tetanus or diphtheria should still be immunized since these clinical infections do not always confer immunity.

Orders

- 0.5 mL IM in deltoid
- Boosters recommended every 10 years

Contraindications and Risks

- Immunization should be deferred in the presence of any acute illness, including febrile illness, to avoid superimposing adverse effects from the vaccine on the underlying illness or mistakenly identifying a manifestation of the underlying illness as a complication of vaccine use. A minor illness such as mild upper respiratory infection is not reason to defer immunization.
- Allergy to any component of TD or its container.
- Any anaphylactic or other allergic reaction to a previous dose of TD.
- Where Guillain-Barre Syndrome occurred within six weeks of immunization with a previous dose of vaccine containing tetanus toxoid.

APPENDIX B

Tetanus Toxoid, Reduced Diphtheria Toxoid
and Acellular Pertussis Vaccine Adsorbed (Tdap) Vaccine

Clinical Criteria
Indicated for active immunization in the prevention of tetanus, diphtheria and pertussis. The National Advisory Committee on Immunization (NACI) recommends a single dose of Tdap for all adults who have not previously received a dose of acellular pertussis vaccine during adolescence or as adults. The interval between the last tetanus diphtheria booster and the tetanus-diphtheria-acellular pertussis does not matter. Previous immunization against pertussis or a history of natural pertussis infection does not provide lifelong immunity. The prevention of pertussis in adults, particularly if they are health care workers, is advised.

Orders
- 0.5 mL IM in deltoid
- A single dose for all adults

For adults who have not previously received a dose of acellular pertussis vaccine, it is recommended that the diphtheria-tetanus (TD) booster dose be replaced by the combined Tdap vaccine.

Contraindications and Risks
- **Immunization should be deferred in pregnant women/women who are breastfeeding** until the employee has had opportunity to consult with their personal health care provider to discuss risks, benefits and pregnancy. In special circumstances, such as a regional outbreak situation, immunization with Tdap may be offered to pregnant women (greater than or equal to 26 weeks gestation), irrespective of their immunization history.
- Immunization should be deferred in the presence of any acute illness, including febrile illness, to avoid superimposing adverse effects from the vaccine on the underlying illness or mistakenly identifying a manifestation of the underlying illness as a complication of vaccine use. A minor illness such as mild upper respiratory infection is not reason to defer immunization.
- Allergy to any component of Tdap or its container.
- Any anaphylactic or other allergic reaction to a previous dose of Tdap.
- Where Guillain-Barre Syndrome occurred within six weeks of immunization with a previous dose of vaccine containing tetanus toxoid.

APPENDIX C

Hepatitis B Vaccine

Clinical Criteria

Employees are at risk of developing blood-borne illness through potential occupational exposure to blood or body fluids. This includes both direct patient care providers (nursing, medical and allied health professional staff) and indirect patient care providers (laundry, housekeeping, maintenance and reprocessing staff).

Orders

Age Group	Orders
Adults greater than or equal to 20 years	• 1 mL IM in deltoid • Three-dose series administered at 0, 1, and 6 months
Adolescents up to 19 years	• 0.5 mL IM in deltoid • Three-dose series administered at 0, 1 and 6 months

- After completion of three-dose series, provide staff with a lab requisition to determine antibody titers.
- Up to three additional doses (second series) of Hepatitis B vaccine may be given for anti-HB titers less than 10 units/L.
- Employees declining or medically exempt from the Hepatitis B vaccine series will be required to complete annual lab surveillance to determine Hepatitis B status.

Contraindications and Risks

- Pregnancy is not a contraindication. Vaccination may be considered to prevent Hepatitis B in high risk situations. Defer vaccination until the employee has had opportunity to consult their personal health care provider to discuss risks, benefits and pregnancy.
- Immunization should be deferred in the presence of any acute illness, including febrile illness, to avoid superimposing adverse effects from the vaccine on the underlying illness or mistakenly identifying a manifestation of the underlying illness as a complication of vaccine use. A minor illness such as mild upper respiratory infection is not reason to defer immunization.
- Allergy to any component of Hepatitis B vaccine or its container.
- Any anaphylactic or other allergic reaction to a previous dose of Hepatitis B vaccine.
- Should not be injected in the gluteal muscle.

APPENDIX D

Combined Hepatitis A and Hepatitis B Vaccine

Clinical Criteria

Where Hepatitis B is not available, combined Hepatitis A and Hepatitis B vaccine may be given to employees that are at risk of exposure to blood-borne illness through potential exposure to blood or body fluids. This includes both direct patient care providers (nursing, medical and allied health professional staff) and indirect patient care providers (laundry, housekeeping, maintenance and reprocessing staff).

Orders

- Adults greater than or equal to 19 years:
  - 1 mL IM in deltoid
  - Three-dose series administered at 0, 1, and 6 months
- After completion of three-dose series, provide staff with a lab requisition to determine antibody titers.
- Up to three additional doses (second series) of Hepatitis B vaccine may be given for anti-HB titers less than 10units/L.
- Employees declining or medically exempt from the Hepatitis B vaccine series will be required to complete annual lab surveillance to determine Hepatitis B status.

Contraindications and Risks

- Pregnancy is not a contraindication. Vaccination may be considered to prevent Hepatitis A and B in high risk situations. Defer vaccination until the employee has had opportunity to consult their personal health care provider to discuss risks, benefits and pregnancy.
- Immunization should be deferred in the presence of any acute illness, including febrile illness, to avoid superimposing adverse effects from the vaccine on the underlying illness or mistakenly identifying a manifestation of the underlying illness as a complication of vaccine use. A minor illness such as mild upper respiratory infection is not reason to defer immunization.
- Allergy to any component of Hepatitis A and B vaccine or its container.
- Any anaphylactic or other allergic reaction to a previous dose of Hepatitis A and B vaccine.
- Known hypersensitivity to any component of the vaccine, or having shown signs of hypersensitivity after previous Hepatitis A and B vaccine administration.
- Should not be injected in the gluteal muscle.

APPENDIX E

Measles Mumps Rubella (MMR) Vaccine

Clinical Criteria
Combined MMR vaccine (trivalent) live attenuated is indicated for active immunization against infection by measles, mumps and rubella.

The MMR vaccine may be administered to HCWs as part of:

- An immunization catch up program in hospitals where HCWs do not have:
  - Documentation of receipt of two doses of live measles virus vaccine /mumps vaccine given as trivalent MMR on or after their first birthday with doses given at least four weeks apart, or
  - Laboratory evidence of immunity
- Following an occupational exposure to measles or mumps whereby susceptible exposed HCWs:
  - Do not meet the OHA/OMA criteria of immunity
  - Are at risk of developing the communicable disease
  - Are potentially excluded from any work in the hospital

Orders

- Standard dose is 0.5 mL subcutaneously
- 2 dose series recommended:
  - The first dose is given on or after the first birthday
  - The second dose given one month after the first dose

Contraindications and Risks

- **Contraindicated in pregnant women**. Women of child-bearing potential should be advised to avoid pregnancy for three months following vaccination. When other susceptible persons with immune deficiencies are exposed to measles, passive immunization with immune globulin [human (IG)] should be given as soon as possible. It is desirable to immunize close contacts of immunocompromised individuals in order to minimize the risk of exposure of the latter to measles.
- Contraindicated in subjects with known systemic hypersensitivity to neomycin or to any other component of the vaccine.
- Contraindicated for the re-immunization of subjects with a previous anaphylactic reaction to this vaccine.
- Postpone in subjects suffering from acute severe febrile illness. The presence of a minor infection, however, is not a contraindication for vaccination.
- Should not be given to subjects with impaired immune function, including patients with primary or secondary immune-deficiencies.

APPENDIX F

Seasonal Influenza Vaccine

Clinical Criteria
Seasonal influenza vaccine (trivalent) is indicated for active immunization against seasonal influenza caused by specific strains of influenza contained in the vaccine as determined annually by the National Advisory Committee on Influenza (NACI).

The vaccine is indicated for both the prevention (pre-season) and management (outbreak) of influenza virus infections among HCWs.

Orders
- 0.5 mL dose IM in deltoid

Contraindications
- Anaphylactic reaction to a previous dose of influenza vaccine or to any of the vaccine components (with the exception of egg).
- Severe allergic reaction to any component of the vaccine or its container.
- Persons who developed Guillain-Barre Syndrome within six weeks of influenza vaccination should not receive a further dose.
- Egg-allergic individuals may be vaccinated using TIV and QIV without a prior influenza vaccine skin test and with the full dose. The vaccine may be given in any settings where vaccines are routinely administered. However, immunizers should be prepared for, and have the necessary equipment to respond to, a vaccine emergency at all times.
- Postpone in persons with serious acute illnesses until their symptoms have abated. Immunization should not be delayed because of minor acute illness.
- Persons with acute respiratory infection, any other active infection or serious febrile illness. A minor/mild infection of the upper respiratory tract is not necessarily a contraindication.
- Give with caution to subjects who have bleeding disorders to avoid risk of hematoma following injection.
- Immunocompromised persons may not have the desired protective effect.