BC Centre for Disease Control
An agency of the Provincial Health Services Authority

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Date: November 27, 2013 **Administrative Circular: 2013:19**

ATTN: Medical Health Officers and Branch Offices
Public Health Nursing Administrators and Assistant Administrators
Holders of Communicable Disease Control Manuals

Re: Update to Communicable Disease Control Manual, Chapter 2 – Immunization Program
Section VII- Biological Products: MMRV, MMR and Rotavirus vaccines

MMRV:

These pages have been added to the BC Immunization Manual to provide staff with information on PRIORIX-TETRA® (MMRV). This vaccine is indicated for use in un- or under-immunized clients (4-12 years of age) requiring protection against MMR and Varicella**. Limited quantities are being made available to BC health authorities prior to July 2014 for this small number of individuals.**

Beginning in July 2014, this product will also routinely be used to provide the second dose of MMR and Varicella at school entry (4-6 years of age). For more information on this program change please see 2 Dose Varicella Immunization Program in BC Information for Healthcare Providers Date of Issue: September 17, 2012.

Please add new page number: 36a-b
Dated: November 2013

MMR:

1. These pages have been reformatted to reflect the new format for the Biological Product Section.

2. **Indications:**
   Revised: Infants at 12 months of age.
   Changed to: Routinely as a first dose for infants at 12 months of age and as a second dose for children at school entry given at 4-6 years of age.

   Deleted: Adult HSCT patients.
   Added: Select special populations as indicated in Section III-Immunization of Special Populations.

   Combined: Indication 3) Infants from 6 months to <12 months of age, if travelling to endemic areas and (4) Infants from 6 months to <12 months of age identified as contacts of measles.

   Deleted: All individuals who require protection against measles, mumps, OR rubella.
   Added: All other individuals ≥ 12 months of age requiring protection against measles, mumps or rubella as either a first or second dose.

3. **Doses and schedule:**
Deleted: Infants at 12 months of age 0.5 ml SC at 4-6 years of age (school entry) if not received previously.

Added: Routine infant and childhood schedule: One dose given as 0.5 or 0.7 mL SC on / after 12 months of age (SEE ADMINISTRATION SECTION). Second dose given at 4-6 years of age as MMRV, see Section IIA-Immunization Schedules.

All doses and schedules revised from 0.5 mL SC to read 0.5 or 0.7 mL SC (SEE ADMINISTRATION SECTION).

Added: Select special populations: as indicated in Section III-Immunization of Special Populations.

4. **Administration:**
New section:
Added: Both products need to be reconstituted. Use the diluent provided with the vaccine.
MMRII®: Administer the entire volume of reconstituted product, which may be 0.7 mL.
PRIORIX®: Withdraw and administer a 0.5 mL dose after vaccine reconstitution.

5. **Contraindications:** Order of contraindications has changed.
Deleted:
2. Consult the appropriate physician (i.e., either the primary care physician most familiar with the client's current medical status or a medical specialist) and obtain a written referral regarding the appropriateness of MMR vaccine administration to persons whose immune status may be suppressed as the result of disease or therapy. Refer to BC Communicable Disease Control Manual Chapter 2, Section III, Subsection 1.4. Immunization with Live Vaccines and use Referral Form for MMR Vaccination.
Added:
2. Immunocompromised as a result of disease or therapy: consult the appropriate physician (either the primary care physician most familiar with the client's current medical status or a medical specialist) and obtain a written referral regarding the appropriateness of MMR vaccine administration to persons whose immune status may be suppressed as a result of disease or therapy. Referral form for MMR vaccination is located in Section III, Subsection 1.4. Immunization with Live Vaccines and use Referral Form for MMR Vaccination. For more information on affected populations see Special Populations Section III-Immunization of Special Populations, Subsection 1.0 Immunocompromised Individuals.

Deleted: Physician-diagnosed significant thrombocytopenia after first dose of a MMR vaccine.
Revised: Physician-diagnosed significant thrombocytopenia after first dose of MMR vaccine with no other cause identified. In such individuals the risk of recurrence of thrombocytopenia following a second dose of measles-containing vaccine is not known. Testing to confirm immunity to measles and mumps, the components for which a 2nd dose is recommended to ensure optimal protection, may help inform the decision.

Deleted: Pregnancy. Counsel female recipients to avoid pregnancy for 1 month following immunization. Risk is theoretical and not observed. Inadvertent immunization during pregnancy is not considered a medical indication for therapeutic abortion.
Revised: Pregnancy: Counsel female recipients to avoid pregnancy for 1 month following immunization. Risk is theoretical and has not been observed. Inadvertent immunization during pregnancy is not considered a medical indication for therapeutic abortion and the pregnant woman should be reassured that teratogenicity from the vaccine has not been observed.

6. **Product Components:**
Added: MMR II®:
Potential allergens: hydrolyzed gelatin, neomycin, phenol red, fetal bovine serum, egg protein (See SPECIAL CONSIDERATIONS).
Other components: sorbitol, Medium 199 with Hank's salts, sodium phosphate monobasic, sodium phosphate dibasic (anhydrous), sucrose, sodium bicarbonate, Minimum Essential Medium (Eagle's), potassium phosphate dibasic (anhydrous), monosodium L-glutamate monohydrate, potassium phosphate monobasic, recombinant human albumin.

PRIORIX®:
Potential allergens: neomycin sulphate, egg protein (See SPECIAL CONSIDERATIONS).
Other components: amino acids, lactose, mannitol, sorbitol.

7. **Precautions:**
Deleted: Anti-Rho (D) immune globulin may interfere with response to the rubella component of the vaccine. Rubella-susceptible women who receive anti-Rho (D) immune globulin post-partum should either be given MMR vaccine at the same time and tested 2 months later for rubella immunity, or should be actively followed up to immunize with MMR vaccine 2 months post-partum, with follow-up ensured.
Revised: Anti-Rho (D) immune globulin may interfere with response to the rubella component of the vaccine. Rubella-susceptible women who receive anti-Rho (D) immune globulin post-partum should either be given MMR vaccine at the same time and tested 2 months later for rubella immunity, or should be actively followed up to immunize with MMR vaccine 2 months post-partum.

Moved from contraindications: For immunocompromised clients only: separate administration of MMR and varicella by at least 4 weeks. For additional information see Special Populations Section III-Immunization of Special Populations, Subsection 1.0 Immunocompromised Individuals.

8. **Special considerations:**
Added: In view of the cumulative data indicating the safety of MMR immunization in people with a history of anaphylactic hypersensitivity to hens' eggs NACI recommends that such individuals should be immunized according to guidelines without special precaution. As for all vaccines, NACI recommends immunization by personnel with the capability to manage adverse events including anaphylaxis following immunization.

Deleted: Consult the appropriate physician (i.e., either the primary care physician most familiar with the client's current medical status or a medical specialist) and obtain a written referral (Use Referral Form for MMR Vaccination) regarding the appropriateness of MMR vaccine administration to persons whose immune status may be suppressed as the result of disease or therapy (e.g., chronic renal disease / dialysis; HIV/AIDs (if no significant compromise); solid organ transplant candidate; hyposplenia/ asplenia; ≥ 3 months after being cured of a malignant disease and the end of immunosuppressive treatment; and high doses of oral corticosteroid therapy). As this was repetitive of contents in contraindication section.

Moved from footnotes and revised to reflect new BC Measles, Mumps and Rubella CD guidelines.

Consider as immune those persons who have had any of the following:
- Measles:
  - birth date before January 1, 1970 (January 1,1957 for health care workers)
  - birth date on or after January 1, 1970 (January 1, 1957 for health care workers) AND
    - laboratory evidence of immunity to measles; or
    - documentation of 2 doses of a live measles-containing vaccine at ≥ 12 months of age and given at least 4 weeks apart.

- Mumps:
  - birth date before January 1, 1970 (January 1, 1957 for health care workers) [B]
  - birth date on or after January 1, 1970 (January 1, 1957 for health care workers) AND
    - prior clinical diagnosis of acute mumps and laboratory confirmation of same; or
    - documentation of 2 doses of a live mumps-containing vaccine at ≥ 12 months of age and given at least 4 weeks apart.
- Rubella:
  - documented receipt of one dose of live rubella virus vaccine (most often given as MMR);
  - laboratory evidence of rubella immunity; or
  - laboratory confirmed acute rubella infection.

9. Adverse events:
Systemic adverse events revised to read**:** Acute transient arthritis or arthralgia is uncommon in children, but frequency and severity increases with age. 25% of rubella susceptible post-pubertal females may experience arthralgia, and 10% may have arthritis-like signs and symptoms. Rubella vaccine does not cause chronic arthropathy.

10. Footnotes:
Multiple footnotes have been incorporated into the body of the text.

New footnotes added:

To page 35a:
Footnote A: Children entering school who require both a 2nd dose of MMR and a 2nd dose of varicella vaccine may be immunized using combination MMRV (measles, mumps, rubella, varicella) vaccine.
Footnote B: See Measles, Mumps and Rubella control guidelines. Communicable Disease Control Guidelines.
Footnote C: Second dose is provided for protection against measles and mumps.

To page 35c:
Footnote A: National Advisory Committee on Immunization. Anaphylactic Hypersensitivity to Egg and Egg-Related Antigens. Part 2. Vaccine Safety and Adverse Events Following Immunization. Canadian Immunization Guide. Public Health Agency of Canada; 2013.

Footnote B: changed to reflect BC Measles, Mumps and Rubella CD guidelines.
These persons are generally assumed to have acquired immunity to measles or mumps from natural infection. There may be susceptible individuals in this age group, however, and those without a history of measles or mumps vaccine or disease may be considered susceptible and offered MMR vaccine per the routine schedule.

Please remove and recycle page number: 35-36
Dated: January 2012 and June 30 2011

Please replace with new page number: 35a-d
Dated: November 2013

Rotavirus Vaccines:

1. Page has been reformatted to reflect the new format for the Biological Product Section. Information for both rotavirus vaccines has been combined in a single page.

2. **Indications:**
   Removed: For infants presenting on or after January 1, 2012. This was included to facilitate maximal immunization eligibility at the introduction of program.

   Revised: For routine immunization of infants beginning at 2 months of age. Rotarix™ is the product used in the BC publicly funded program as it allows for completion of series in 2 doses.

   Deleted: Initial series information for Rotarix™ and Rotateq®.
   Added: ROTARIX™: 2 doses given as 1.5 mL by mouth, at 2 and 4 months of age.
   RotaTeq®: 3 doses given as 2.0 mL by mouth, at 2, 4 and 6 months of age.

   And associated footnotes A, B, and C.

3. **Contraindications:**
   Contraindication 1. Latex removed as a contraindication to Rotarix vaccine, consistent with PM update.
   Contraindication 5. Replaced the word "conditions" with malformations to differentiate from chronic illnesses (e.g, Crohn's, IBS), which are discussed in precautions.

4. **Product components:**
   Removed porcine circovirus type 2 and latex from Rotarix list, consistent with latest PM.

5. **Special considerations:**
   NEW: Infants hospitalized in the NICU may receive Rotarix™ vaccine in accordance with the Neonatal Drug Dosage Guidelines (2013) created at BC Children's Hospital (internal BCCH document).

6. **Adverse events**
   Added: A small increased risk of intususception, about 1 to 2 cases per 100,000 infants, has been reported in some countries in the seven days following administration of the first dose of rotavirus vaccines. This is considerably lower than the background rate of intussusception of 1 in 4,000 BC infants.

7. **Footnotes:**
   Rotarix™:
   Incorporated into text.
   Rotateq®:
   Incorporated into text.

Please remove and recycle page number: 62a-d as well as 59-61 (blank)
Dated: January 2012, June 2012 and April 2011

Please replace with new page number: 59-61
Dated: November 2013

Please also remove the Table of Contents for Section VII – Biologicals Products dated October 2013 and replace with the enclosed updated Table of Contents section dated November 2013.

If you have any questions or concerns, please contact Brittany Deeter, Public Health Resource Nurse at telephone (604) 707-2577, fax (604) 707-2515 or by email at brittany.deeter@bccdc.ca

Sincerely,

Monika Naus, MD MHSc FRCPC FACPM
Medical Director
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