POLICY AND GUIDELINES

FOR CHEMOPROPHYLAXIS

OF

INVASIVE MENINGOCOCCAL

DISEASE

PEI DEPARTMENT OF HEALTH AND WELLNESS
Updated August 2016

1. GOAL

To provide chemoprophylaxis to eligible contacts of Invasive Meningococcal disease.

2. ROLE OF THE DEPARTMENT OF HEALTH and WELLNESS

The role of the Department of Health and Wellness is:

1) To provide guidelines for chemoprophylaxis in contacts of cases who are infected with bacterial meningococcal organism.

2) To provide a policy concerning the role of the Department of Health and Wellness.

3. DEFINITIONS

Invasive Meningococcal Disease

The invasive meningococcal disease requiring chemoprophylaxis includes meningitis or bacteremia due to Neisseria meningitidis. Usually this refers to culture proven or PCR disease but in some cases, clinical suspicion of the disease is sufficient to respond by providing chemoprophylaxis.

Hospital Staff

Health care workers and hospital staff only require chemoprophylaxis when the criteria outlined in close contact item 6) on the following page are met. The patient is not considered infective after 24 hours of adequate antibiotic therapy.

Household Contacts

A person who has stayed overnight in the home of the index case in the 7 days prior to the diagnosis **or** who has spent 4 or more hours in the home of the index case in 5 of the 7 days prior to the onset of illness **or** who has spent a total of 20 hours in the home of index case in the 7 days prior to the onset of illness.

Close Contact

A person who was in "close" contact with the index case in the 7 days prior to diagnosis through any of the following types of contact:

1) Direct contact with secretions from the nose or mouth of a case:

a) Kissing (with oral contact),
b) Eating or drinking from the same utensil,
c) Sharing of cigarettes or tooth brushes.

2) A person sharing sleeping arrangements with a case.

3) Boyfriend/girlfriend relationship to the index case.

4) Sexual contact.

5) Child care or nursery school contact - an attendee or staff member who has been in the same facility as the index case in the 7 days prior to the onset of illness.

6) Health care workers (HCW) who have had unprotected contact during certain procedures (without wearing a mask) with index case (e.g. intubating, resuscitating, closely examining the oropharynx, contact with droplets through patient coughing, sneezing etc.).

7) Airline passengers sitting immediately on either side of the case (but not across the aisle) when the total time spent aboard the aircraft was at least 8 hours.

Secondary Contact

A person who is in contact with a household, but who has not been in contact with the index case is a secondary contact. Secondary contacts do **not** need chemoprophylaxis.

4. PRINCIPLES of TREATMENT

Chemoprophylaxis and Immunization status

Any household or close contact of a case of invasive meningococcal disease eligible for chemoprophylaxis should receive the antibiotics regardless of their immunization status for meningococcal vaccines.

Timing of Chemoprophylaxis

Eligible contacts should receive chemoprophylaxis as soon as possible after contact but chemoprophylaxis is still recommended up to 10 days after last contact with an infectious case.

Suspected Cases of Invasive Disease

Chemoprophylaxis should be considered for household and close contacts of a case of meningococcal disease even if the laboratory cannot confirm the diagnosis within 24 hours.

Meningococcal Vaccine for Household or Close Contacts

Vaccination of susceptible household or close contacts of a case of invasive meningococcal disease (in addition to chemoprophylaxis) is recommended as soon as possible when there is a vaccine for the serogroup. When available, the conjugated meningococcal vaccine is recommended.

Period of Infectivity

The index case is not considered contagious after 24 hours of adequate antibiotic therapy and any contacts after the 24 hour period do not require chemoprophylaxis regardless of the type of contact.

5. PROCEDURES for FOLLOW-UP and for ADMINISTRATION of PROPHYLAXIS

A) Notification

i) It is requested that the Chief Health Officer or designate be notified by the laboratory or the attending physician as soon as possible after a case of invasive meningococcal disease is diagnosed or suspected.

ii) The Chief Health Officer or designate will notify the appropriate Public Health Nurse if contacts require assessment for prophylaxis.

B) Duties of Public Health Nurse

i) Ensure that the appropriate Hospital department has a copy of the policy regarding Rifampin prophylaxis.

ii) Discuss the policy with any inquiring physician and/or refer to the Chief Health Officer if necessary.

iii) Interview the index case/family and complete the case report form (CRF[1]). Obtain a list of contacts that will require prophylaxis.

iv) Inform the physician who will prescribe the medication of the names of all contacts who will require Rifampin and of the weight of all children. If the physician is available, he/she may write prescriptions for patients requiring Rifampin chemoprophylaxis. When physicians are not available, or when the situation is urgent and obtaining the services of a physician might delay chemoprophylaxis, the medication can be prescribed or released

[1]The CRF is a national case report form and is located in the CD Manual/Direct Contact and Respiratory Diseases/CRF. This note was added July 19th, 2016.

by the Chief or Deputy Chief Health Officer.

v) Arrange for Rifampin (and simple syrup if children are involved) to be available in the pharmacy where the medication will be picked up. During week day working hours, the Rifampin and simple syrup can be obtained from the Provincial Pharmacy. During nights, week-ends, or holidays there is a supply of Rifampin and simple syrup in the night refrigerator at the Queen Elizabeth Hospital.

vi) Inform the pharmacy that supplies the Rifampin that the Department of Health and Wellness pays for relevant prescription fees. Payment may be received by sending an invoice to the Chief Health Officer at P.O. Box 2000, Charlottetown, listing the names of the patients and the total amount of the invoice.

vii) If Rifampin is required from the night refrigerator at the Queen Elizabeth Hospital, it is requested that the Public Health Nurse phone the Provincial Pharmacy and inform them so that the medication can be replaced.

C) Stocking and Replacing Rifampin

i) Provincial Pharmacy provides Rifampin at the request of the Chief Health Officer or designate for contact prophylaxis. Provincial Pharmacy also replaces any Rifampin taken from the Queen Elizabeth Hospital refrigerator on notification by either the QEH, Chief Health Officer or designate.

ii) Queen Elizabeth Hospital Pharmacy obtains their stock of Rifampin from the Provincial Pharmacy. They also maintain a supply of Rifampin and simple syrup in the **night refrigerator** at the QEH and replace any expired Rifampin in the refrigerator.

6. INDICATIONS FOR PROPHYLAXIS

i) The **index case** should receive chemoprophylaxis in hospital prior to discharge to prevent spread of the organism. (Obtaining nasopharyngeal cultures before or after prophylaxis is of no value).

ii) Household and Close Contacts
Provide prophylaxis for household and intimate contacts when exposure to the untreated index case has occurred within the past 7 days. Close contacts of a case of meningococcal disease should be advised to seek medical attention immediately should they develop a febrile illness or any other clinical symptom of invasive meningococcal disease.

iii) Health Care Workers
Prophylaxis should also be provided for health care staff that experience unprotected contact (i.e. not wearing a mask) during endotracheal intubation or suctioning of a confirmed case of meningococcal disease during the 7 days before the onset of illness.

Meningococcal organisms usually disappear from the nasopharynx within **24 hours** after the institution of treatment with antibiotics to which the organism is sensitive.

One of the following drugs/dosages can be used for Chemoprophylaxis for Household and Close Contacts of Invasive Meningococcal Disease

Drug	Dosage	Comments
Ciprofloxacin	**Adults ≥ 18 years of age:** 500 mg x 1 dose PO	Contraindicated during pregnancy and lactation. Only approved for persons > 18 years of age. Not recommended for prepubertal children.
Rifampin	**Adults:** 600 mg PO q 12h x 4 doses **Children ≥ 1 month of age:** 10 mg/kg per dose (maximum 600 mg. per dose) PO q 12h x 4 doses **Infants < 1 month of age:** 5 mg/kg per dose PO q12h x 4 doses	Contraindicated in pregnancy. Urine and tears may be stained red or orange. Advise against wear of soft contact lenses as they can also be stained. Can reduce effectiveness of oral contraceptives. Advise use of alternative contraceptive measures.
Ceftriaxone	**Adults:** 250 mg IM x 1 dose **Children <12 years:** 125 mg IM x 1 dose	Recommended drug for pregnant women. Alternative for persons who cannot tolerate oral medication. Dilute in 1% lidocaine to reduce pain at injection site.

B) CHILD CARE AND NURSERY SCHOOL FACILITIES

i) Chemoprophylaxis is indicated in these settings when an attendee or staff member of the facility is diagnosed as having invasive meningococcal disease.

ii) The parents should be notified in writing or by telephone by the Public Health Nurse of the need for prophylaxis.

7. PREPARATION OF AN ORAL SUSPENSION OF RIFAMPIN (Strength 10 mg/ml.)

A) **i)** Empty the contents of four (4) Rifampin 300 mg. capsules into a 4 oz. (120 ml.) amber glass bottle.

ii) Add 20 ml. of simple syrup (USP) - **SHAKE VIGOROUSLY.**

iii) Add 100 ml. of simple syrup (USP) - **SHAKE AGAIN**.

iv) Store in refrigerator at 2º- 8º C (36º- 46º F) for **NO MORE** than six (6) weeks.

v) Because this is a suspension - **SHAKE VIGOROUSLY** before dose administration.

vi) Rifampin should be taken on an empty stomach one hour before or three hours after meals.

B) Possible Side Effects of RIFAMPIN

a. Nausea, vomiting, diarrhea, headache, dizziness (20 -25%);
b. Red or orange discolouration of urine (85%);
c. Discolouration of soft contact lenses;
d. Ineffectiveness of birth control pills.

REFERENCES

1) Control of Communicable Diseases Manual, American Public Health Association. Heymann, David L. Ed., 20th Edition, 2014.

2) Red Book: 2015 Report of the Committee on Infectious Diseases, 30th Edition. American Academy of Pediatrics.

3) Canadian Immunization Guide 7th Edition 2006.

4) Prevention and Control of Meningococcal Disease: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR; Vol 54 No.RR7: May 27, 2005, 1-21.

5) Meningococcal disease prevention and control strategies for practice - based physicians. Canadian Paediatic Society Statement. Paediatric and Child Health; Vol 106 No.6: December 2000.

6) Guidelines for the Prevention and Control of Meningococcal Disease. CCDR 2005; 31S1:1-20.

INFORMATION FOR PATIENTS TAKING RIFAMPIN

RIFAMPIN is an antibiotic which has been recommended for close contacts of some illnesses. You are advised to take this medication as prescribed by your physician. While taking Rifampin you should be **aware** of the following:

1. Your urine or tears may become an orange colour;

2. Soft contact lenses should not be worn because they may stain red or orange and be damaged;

3. Be aware that Rifampin may interfere with the effectiveness of oral contraceptives (other birth control methods are recommended while on Rifampin);

4. A few patients experience nausea, vomiting, diarrhea, headache or dizziness while taking Rifampin;

5. Persons who are **pregnant** should inform their physician before taking Rifampin.

INFORMATION FOR CONTACTS OF MENINGOCOCCAL DISEASE

Meningococcus is a bacterium which is carried in the throats of up to 25% of healthy people. Usually no illness is noted among people who have these bacteria in their throat. Occasionally, however, a healthy person will become ill when the bacterium enters the blood causing fever, vomiting, headache, and sometimes a spotty rash which looks like bruises. Sometimes meningitis is also noted, at which time the patient develops a stiff neck.

This disease can spread to others through close contact (i.e. eating or drinking from the same utensil or container, kissing, or living in the same house) during the 7 days before the illness is diagnosed. The Public Health Nurse will review the situation and recommend that your doctor prescribe an antibiotic to all those who were in close or household contact with the person who is ill. This antibiotic is given to reduce the chance of disease among those who were in close contact. Persons who do become ill with any of the symptoms of the disease (fever, vomiting, headache, stiff neck, or spotty rash which has the appearance of bruising) should seek medical attention.

It is likely that many others who were not in close contact with the person who is ill will be concerned about getting this illness. We try to reassure them that national recommendations are being followed in regards to who receives antibiotics.