Respiratory and Direct Contact

Diphtheria

Notification Timeline:

From Lab/Practitioner to Public Health: Immediate.
From Public Health to Ministry of Health: Immediate.

Public Health Follow-up Timeline: Initiate within 24-48 hrs.

Information

Case Definition (Public Health Agency of Canada, 2008)

Confirmed Case	Clinical illness* or systemic manifestations compatible with diphtheria in a person with an upper respiratory tract infection or infection at another site (e.g., wound, cutaneous) PLUS at least one of the following: • Laboratory confirmation of infection: ▪ isolation of *Corynebacterium diphtheriae* with confirmation of toxin from an appropriate clinical specimen,[1] including the exudative membrane **OR** ▪ isolation of other toxigenic Corynebacterium species (*C. ulcerans* or *C. pseudotuberculosis*) from an appropriate clinical specimen, including the exudative membrane **OR** ▪ histopathologic diagnosis of diphtheria. **OR** • Epidemiologic link (contact within two weeks prior to onset of symptoms) to a laboratory-confirmed case.
Probable Case	Clinical illness* in the absence of laboratory confirmation or epidemiologic link to a laboratory-confirmed case.
Suspected Case	Upper respiratory tract infection (nasopharyngitis, laryngitis or tonsillitis) with or without a nasal, tonsillar, pharyngeal and/or laryngeal membrane.
*Clinical illness is characterized as an upper respiratory tract infection (nasopharyngitis, laryngitis or tonsillitis) with or without an adherent nasal, tonsillar, pharyngeal and/or laryngeal membrane, plus at least one of the following: • gradually increasing stridor; • cardiac (myocarditis) and/or neurologic involvement (motor and/or sensory palsies) one to six weeks after onset; • death, with no known cause.	

[1]Refer to Specimen Collection and Transport for details on appropriate clinical specimens.

Causative Agent
Corynebacterium diphtheriae (C. diphtheriae), a gram positive bacillus. Diphtheria is caused by toxigenic strains of the bacteria *C. diphtheriae* of gravis, mitis or intermedius biotypes.

Symptoms
The various clinical forms of diphtheria are caused by an exotoxin produced by toxigenic strains of the bacteria; all toxigenic strains produce an identical toxin. Toxin production occurs following infection of a *C. diphtheriae* strain by a corynebacteriophage containing the tox gene.

Non-toxigenic strains can also produce a mild, localized disease resembling that caused by toxigenic strains.

- Infections that are not apparent tend to outnumber clinical cases, and both toxigenic and non-toxigenic strains of *C. diphtheriae* may be harboured in the nasopharynx, skin, and other sites of asymptomatic carriers.
- Pharyngeal diphtheria is a febrile illness beginning with a low-grade fever, a sore throat, and a yellow-white discharge over the tonsils, uvula, and throat. This discharge becomes grey, patchy, and membranous and may involve the larynx, where it can present an airway obstruction, particularly in infants and young children. There may be marked edema of the neck (classic bull neck appearance).
- Nasal diphtheria is often a mild form of the disease and is characterized by one-sided nasal secretions.
- Diphtheria may also present as a cutaneous, vaginal, or conjunctival infection.
- Cutaneous or mucous membrane diphtheria is usually found in warmer climates or among the homeless and will present as a shallow ulcer coated with a pseudomembrane.

Complications

- Affects distant tissues and organs after 2 to 6 weeks, in particular cranial and peripheral motor and sensory palsies, and myocarditis.
- A case-fatality rate of 5% to 10% is reported for non-cutaneous diphtheria, with the highest rates among the very young and the elderly (Manitoba Health, 2001).

Incubation Period
Usually 2-5 days, sometimes as long as 10 days.

Reservoir/Source
Humans are the only reservoir - harboured in the nasopharynx, skin, and other sites.

Mode of Transmission

- Direct transmission of toxigenic strains or indirect transmission by transfer of the bacteriophage from a person infected with a toxigenic strain to a non-toxigenic strain in a carrier.
- Contact with nasopharyngeal secretions of a case or carrier.
- Rarely, contact with articles soiled with discharges from infected skin lesions.
- Raw milk has also served as a vehicle for transmission.

Period of Communicability

- Variable, until virulent bacilli have disappeared from discharges and lesions. For example:
  - effective antibiotic therapy promptly ends shedding within 4 days;
  - without treatment, infectivity usually last 2 weeks or less (seldom more than 4 weeks);
  - the rare chronic carrier may shed organisms for 6 months or more.

Specimen Collection and Transport
The diagnostic specimen is a throat swab in reduced charcoal transport medium.

Material for culture should be obtained by collecting throat swabs and placing them in Amies transport medium. Swabs should be taken from the inflamed areas of the throat and nasopharynx in symptomatic patients. Swabs should be taken for culture before antibiotic therapy is initiated. Confirmatory diagnosis requires isolation and identification of the organism, and toxigenicity testing, and may take several days.

If cutaneous diphtheria is suspected, swabs should be collected from the base of the lesion. Specimens should be transported as soon as possible.

Do not wait for laboratory results before initiating treatment.

Methods of Control/Role of Investigator

Prevention and Education
Refer to the Respiratory and Direct Contact Introduction and General Considerations section of the manual that highlights topics for client education that should be considered and as well as provides information on high-risk groups and activities. As diphtheria is a vaccine-preventable illness, attention should be placed on immunization.

Immunization
Immunize infants, children and adults according to the recommended schedule. Refer to Saskatchewan Immunization Manual.[1]

Education

- Education should be provided regarding respiratory etiquette and measures to prevent transmission.
- Educate the public about the disease and the need for active immunization. Immunization information fact sheets can be used to guide discussion.

Management
See Attachment – Recommendations for the Management of Diphtheria Cases and Contacts Algorithm.

I. Case
Collaborate with the primary care provider to determine respective roles and responsibilities (e.g., contact tracing, education, and follow-up).

History

- Determine case status including a review of the immunization history. Do not wait for laboratory results before initiating treatment.
- Obtain travel history or history of immigration within the past week.
- Identify contacts (refer to Contact Definition).
- Refer to Attachment - Diphtheria Case Investigation Worksheet to guide follow-up.

[1] http://www.ehealthsask.ca/services/manuals/Pages/SIM.aspx.

Treatment/Supportive Therapy

- **Diphtheria Antitoxin** - For pharyngeal diphtheria, early administration of diphtheria antitoxin is recommended to neutralize the circulating diphtheria toxin. It should be given in the early stages if diphtheria is suspected. "The site and size of the diphtheria membrane, the degree of toxic effects, and the duration of illness are guides for estimating the dose of antitoxin" (American Academy of Pediatrics, 2009, p. 281). Dosage should be coordinated by the clinician, infectious disease (ID) specialist and Medical Health Officer (MHO). Diphtheria antitoxin can be obtained from Population Health Branch, Saskatchewan Ministry Health. See Appendix D - Publicly Funded Medications for Chemoprophylaxis/Treatment.
- Antimicrobial therapy is not a substitute for antitoxin treatment.
- Likewise, antitoxin treatment is not a substitute for antibiotic therapy (Health Canada, 1998).
- **Antimicrobial Therapy** - Treatment choices are governed by the most recent guidelines. The public health practitioner should direct any questions regarding the current treatment protocols to the physician or MHO. Refer to Heymann, other texts and clinical treatment guidelines for specific treatment details. See Appendix H - Sources for Clinical Treatment Guidelines. Heymann (2008) indicates the following:
  - Procaine penicillin G IM or parenteral erythromycin is recommended until the patient can swallow comfortably, at which point the treatment may be given orally. A total of 14 days treatment is recommended.
  - Supportive treatment, in hospital or home is advised under strict isolation involving routine contact precautions for cutaneous and droplet precautions in instances of pharyngeal until 2 consecutive throat cultures are negative for diphtheria bacilli. These cultures should be taken not less than 24 hours apart and not less than 24 hours after the completion of a 14-day course of antibiotics.
- For cutaneous diphtheria, the skin lesions should be cleaned with soap and water, and a course of oral antibiotics should be given for a 10-day period. Antitoxin may be of some use in cutaneous disease, because of toxic sequelae (American Academy of Pediatrics, 2009).

Immunization

Immunization against diphtheria should begin during convalescence because there is no guarantee that immunity to diphtheria is conferred by natural infection.

Exclusion

Exclude and isolate **all** cases from work, school, daycare, and other public environments using precautions appropriate to the site of infection until two cultures (nasal and pharyngeal) taken 24 hours apart and at least 24 hours after completion of a 14-day course of appropriate antibiotics, are negative.

Referrals

To the appropriate specialist(s) including an ID specialist.

II. Contacts/Contact Investigation

Refer to Attachment – Diphtheria Contact Investigation Worksheet to guide follow-up.

Contact Definition

- Close contacts are defined as:
  - household members;
  - friends, relatives, and caretakers who regularly visit the home;
  - kissing and/or sexual contacts;
  - those who share the same room at school or work;
  - healthcare staff exposed to oropharyngeal secretions of the infected person (staff who have taken appropriate isolation precautions need not be considered contacts).

Follow up of contacts involves:

Education

- All contacts (or their parents if children are contacts) should be provided with information on the disease, risk factors, prevention and necessary follow-up tests, treatments, and exclusion requirements.

Testing/Prophylaxis

- Collect appropriate screening and case-finding specimens (see Specimen Collection). Samples for culturing should be taken from nasal and pharyngeal swabs **before** antibiotic treatment is started (Health Canada, 1998).
  - A single intramuscular dose of benzethine penicillin G or a 7 to 10 day course of oral erythromycin is recommended for all close contacts exposed to diphtheria regardless of their immunization status (Heymann, 2008).
    - If carrier status is determined, refer to Carrier Management.
  - Follow-up surveillance should continue for 7 days. "All close contacts should be kept under daily surveillance for 7 days from the date of last contact with the case and assessed clinically for signs and symptoms of diphtheria" (Health Canada, 1998).

Immunization

- Assess the immunization status of all contacts.
- Previously immunized contacts who have not received a booster dose within 10 years should receive a booster dose of diphtheria toxoid.
- Under-immunized contacts should have a primary series initiated.

Exclusion

- Exclude under-immunized contacts from school, daycare, health care, and food handling until 2 cultures taken 24 hours apart and at least 24 hours after completion of a 14 day course of appropriate antibiotics, are negative.
- Exclude adult contacts from the workplace until bacteriologic examination proves them not to be carriers for those occupations that involve handling food (especially milk) or close association with under-immunized adults or children (Heymann, 2008).
- Keep all close contacts under active daily surveillance for signs and symptoms for 7 days. Refer to Attachment – Diphtheria Contact Investigation Worksheet. Exclude anyone who becomes symptomatic or whose cultures return positive (Heymann, 2008).

III. Carrier Management

Carrier Definition

One who harbours, and may disseminate, the bacterium without discernable clinical disease.

Testing

- Follow-up pharyngeal cultures should be obtained from contacts proven to be carriers at a minimum of 2 weeks after completion of therapy.
- If cultures are positive, an additional 10-day course of erythromycin should be given.

Treating

- For carriers, a single intramuscular dose of benzathine penicillin G (600,000 units for persons < 6 years of age, and 1.2 million units for persons ≥ 6 years of age), or 7 to 10 day course of oral erythromycin (40 mg/kg/day to a maximum of 1 g/day for children, and 1 g/day) divided in 4 doses for adults has been recommended (Heymann, 2008).

Immunization

- Ensure appropriate immunizations are up-to-date.

Exclusion

- Standard and droplet precautions should be observed for hospitalized carriers with cutaneous diphtheria until 2 negative cultures are obtained from lesions at least 2 weeks after completion of antibiotics.
- Carriers should be excluded from food handling and working with children who are under-immunized until 2 negative cultures have been obtained after completion of antibiotics.
- Carriers should pay strict attention to personal hygiene, particularly:
  - respiratory etiquette;
  - hand hygiene;
  - keeping infected wounds covered.

IV. Environment

Child Care Centre Control Measures

Although an outbreak of diphtheria would be rare, if it occurs the following should be implemented:

- Provide information (not personal information) to the parents of the children in the daycare or school. See Attachment – Diphtheria Template Letter to Parents.
- An immunization information sheet containing diphtheria can be provided and used as a guide.

Children who have not completed the primary series of immunization against diphtheria should begin, or finish the series. These children should be referred to their local public health office.

Institutional Control Measures

- Consultation between Public Health/MHO and infection control staff is important.
- Strict isolation of cases in hospital until two consecutive negative cultures are obtained from throat and nasopharyngeal swabs are obtained at least 24 hours apart and at least 2 weeks after completion of antibiotic therapy. If cultures are difficult to obtain, isolation should be not be discontinued until 14 days after the beginning of antibiotic therapy.
  - Droplet precautions should be used for pharyngeal diphtheria.
  - Contact precautions should be used for cutaneous diphtheria.

Epidemic Measures

Immunize the largest possible proportion of the population group involved especially infants and preschool children.

If unimmunized adults are affected, immunize the groups most affected and individuals at high risk of exposure to cases. Provide a second dose of vaccine one month later to ensure two doses are received.

Travellers to countries where epidemics occur should have their diphtheria status reviewed and updated when necessary (American Academy of Pediatrics, 2009).

References

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Health Canada. (1998). Guidelines for the control of diphtheria in Canada. *Canada Communicable Disease Report (CCDR), 24S3,* July 1998. Retrieved October, 2010 from http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/98vol24/24s3/index.html.

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Manitoba Health. (2001). *Communicable disease management protocols: Diphtheria.* Retrieved October, 2010 from http://www.gov.mb.ca/health/publichealth/cdc/protocol/index.html.

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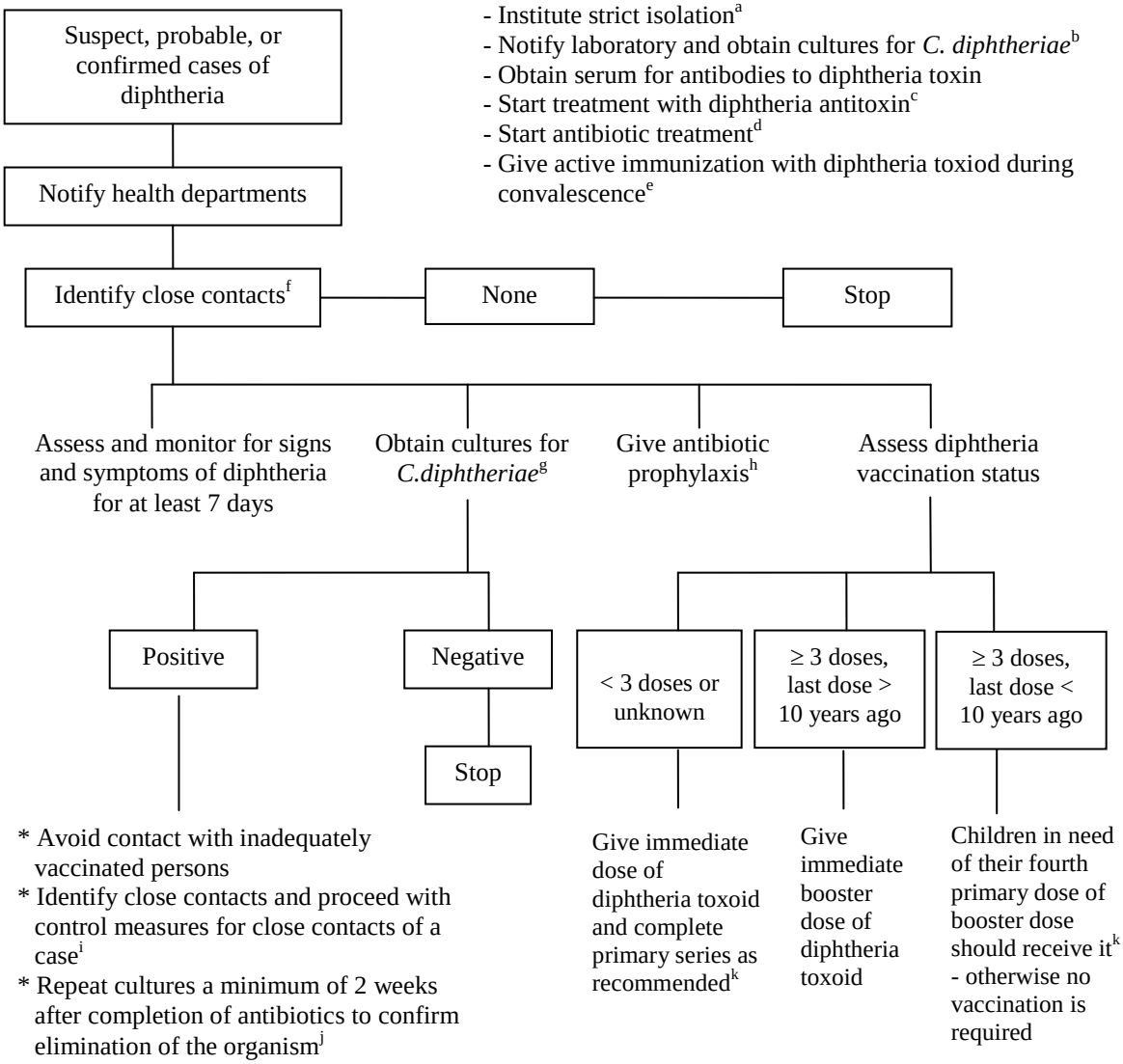
Diphtheria

Attachment – Recommendations for the Management of Diphtheria Cases and Contacts Algorithm



Adapted from CDC Diphtheria Worksheet which was based on Farizo et al. (24), Clinical Infectious Diseases 1993, 16:59-68.

a. Strict isolation with contact and droplet precautions for all potentially infectious cases, as well as a private room and the use of masks, gowns, and gloves for all persons entering the room. Maintain isolation until elimination of the organism is demonstrated by negative cultures of two samples obtained at least 24 hours apart after completion of antimicrobial therapy.
b. Both nasal and pharyngeal swabs should be obtained for culture.
c. The recommended dosage and route of administration of antitoxin depends on the extent and duration of disease. **Refer to Guidelines for the Control of Diphtheria in Canada at** http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/98vol24/24s3/24s3e_e.html **for detailed dosage recommendations for equine diphtheria antitoxin**.
d. Antibiotic therapy is not a substitute for antitoxin treatment. **Refer to Guidelines for the Control of Diphtheria in Canada for detailed antibiotic dosage recommendations for cases.** Eliminations of *C. diphtheriae* should be confirmed by two negative cultures of throat and nasopharyngeal swabs taken at least 24 hours apart, a minimum of 2 weeks after antibiotics are completed. Persistent carriage of the organism should be treated with an additional 10-day oral course of erythromycin with follow-up cultures.
e. Vaccination is required because clinical diphtheria does not necessarily confer immunity.
f. Close contacts include household members and other persons with a history of direct contact with a case (e.g., caretakers, relatives, or friends who regularly visit the home) as well as health-care personnel exposed to oral or respiratory secretions of a case.
g. Both nasal and pharyngeal swabs should be obtained for culture. Swabs should also be taken from any wounds or skin lesions.
h. Antibiotic therapy is not a substitute for antitoxin treatment. **Refer to Guidelines for the Control of Diphtheria in Canada for detailed antibiotic dosage recommendations for contacts and carriers.**
i. Control measures for contacts of a case should be given a higher priority than control measures for contacts of a carrier.
j. Eliminations of *C. diphtheriae* should be confirmed by two negative cultures of throat and nasopharyngeal swabs taken at least 24 hours apart, a minimum of 2 weeks after antibiotics are completed. Persistent carriage of the organism should be treated with an additional 10-day oral course of erythromycin with follow-up cultures.
k. Refer to the Saskatchewan Immunization Manual at http://www.ehealthsask.ca/services/manuals/Pages/SIM.aspx or NACI for recommendations for schedule of vaccination.

Diphtheria
Attachment – Diphtheria Case Investigation Worksheet

Please see the following pages for the Diphtheria Case Investigation Worksheet.

Diphtheria Case Investigation Worksheet

Shaded areas are mandatory for reporting to Saskatchewan Ministry of Health [Indicates field in iPHIS]

Please use YYYY/MM/DD for all dates

PATIENT INFORMATION

Date Reported	Name (Last, First)	HSN

Birth Date	Age	Sex	Pregnant	Ethnicity
		☐ Male ☐ Female ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Arab/West Asian ☐ Asian ☐ Black ☐ Inuit ☐ Latin-American ☐ Métis ☐ North American Indian ☐ South Asian ☐ White ☐ Unknown ☐ Other: _____

Address (Street and No.)	City	Province	Postal Code	Phone

If residential facility or daycare please indicate name:

Date Symptom Onset	Date First Diagnosis (clinical or lab diagnosis)	Date Hospitalized	History of immunization against diphtheria			
			Childhood primary series? ☐ Yes ☐ No ☐ Unknown	If < 18 years old, number of doses?	Boosters as adult? ☐ Yes ☐ No ☐ Unknown	Date of last dose _____ or ☐ Unknown

Description of Clinical Picture	Outcome	Diphtheria as cause of death:
	☐ Recovered, no residual effects ☐ Recovered, residual effects ☐ Unknown ☐ Died – Date: _____	☐ Primary ☐ Contributing ☐ Incidental

Symptoms	Signs	Complications
☐ Fever ☐ Sore throat ☐ Difficulty swallowing ☐ Change in voice ☐ Shortness of breath ☐ Weakness ☐ Fatigue ☐ Other	☐ Fever If yes Temp ____ F/C Membrane present ☐ Yes ☐ No If yes, Sites ☐ Tonsils ☐ Soft palate ☐ Hard palate ☐ Larynx ☐ Nares ☐ Nasopharynx ☐ Conjunctive ☐ Skin ☐ Soft tissue swelling (around membrane) Neck edema? If yes ☐ Bilateral ☐ Left side only ☐ Right side only If yes, Extent ☐ Submandibular only ☐ Midway to clavicle ☐ To clavicle ☐ Below clavicle ☐ Stridor ☐ Wheezing ☐ Palatal weakness ☐ Tachycardia ☐ EKG abnormalities	☐ Airway obstruction Date of onset: _____ ☐ Intubation/traech required ☐ Myocarditis Date of onset: _____ ☐ (Poly)neuritis Date of onset: _____ ☐ Other Describe:

LABORATORY

Specimen culture for diphtheria?	If Yes, date specimen obtained:	Culture result?	Name of lab performing culture:	If culture positive, biotype?
☐ Yes ☐ No ☐ Unknown	_____ or ☐ Unknown	☐ Positive ☐ Negative ☐ Unknown		☐ Mitis ☐ Gravis ☐ Intermedious ☐ Belfanti

If culture positive, results of toxigenicity testing?	Type of specimen? (check all that apply)	PCR result?
☐ Positive ☐ Negative ☐ Unknown ☐ Not done	☐ Clinical swab ☐ Piece of membrane ☐ *C. diphtheriae* isolate	☐ Positive ☐ Negative ☐ Unknown ☐ Not done

(please turn over)

ANTIBIOTICS

Treated with Antibiotics? ☐ Yes ☐ No ☐ Unknown

As an Outpatient? If yes, Date Initiated:	Name of Antibiotic:	Number of Days of Therapy:	Antibiotic Therapy in Hospital? ☐ Yes ☐ No	As an Inpatient? If yes, Date Initiated:	Name of Antibiotic:	Number of Days of Therapy:
_____	_____	_____		_____	_____ ___	_____

Were Antibiotics given in the 24 Hours before Culture?
☐ Yes ☐ No ☐ Unknown

ANTITOXIN INFO

To access Diphtheria Antitoxin, Special Access Program Form A* must be completed and returned to Saskatchewan Ministry of Health.

Date Requested: _____

Date Administered: _____

Amount of DAT administered:

_____ units

EXPOSURE

Country of Residence
☐ Canada
☐ Other

If Other, Country Name: _____

Date of Arrival to Canada _____ or ☐ Unknown

History of International Travel? (2 weeks Prior to Onset)
☐ Yes
☐ No
☐ Unknown

Country(s) Visited: / Dates

_____ To: _____ From: _____

_____ To: _____ From: _____

_____ To: _____ From: _____

History of Interprovincial Travel? (2 weeks Prior to Onset)
☐ Yes
☐ No
☐ Unknown

Province(s) Visited: / Dates

_____ To: _____ From: _____

_____ To: _____ From: _____

_____ To: _____ From: _____

Known Exposure to Diphtheria Case or Carrier?
☐ Yes
☐ No
☐ Unknown

Known Exposure to International Travelers?
☐ Yes
☐ No
☐ Unknown

Known Exposure to Immigrants?
☐ Yes
☐ No
☐ Unknown

CONFIRMATION & REPORTING

Has this Suspected Case been reported to the Saskatchewan Ministry of Health? If Yes, Date Reported: _____
☐ Yes
☐ No
☐ Unknown

Person Informed:	Phone:	Fax:
Reporting Physician:	Phone:	Fax:

Final Diagnosis	How was the Final Diagnosis Confirmed?	Final Case Status or Classification: ☐ Confirmed ☐ Probable ☐ Not a case

*http://www.hc-sc.gc.ca/dhp-mps/acces/drugs-drogues/index-eng.php

Signature: _____ Title: _____ Date: _____

Diphtheria
Attachment – Diphtheria Contact Investigation Worksheet

Please see the following pages for the Diphtheria Contact Investigation Worksheet.

Diphtheria Contact Investigation Worksheet

***Close Contact = household members; friends; relatives and caretakers who regularly visit the home; kissing and/or sexual contacts; those who share the same room at school or work; health-care staff exposed to oropharyngeal secretions of the infected person (staff who have taken appropriate isolation precautions need not be considered contacts).**

Close contacts that develop signs/ symptoms should be followed as a case – refer to Diphtheria Case Investigation Worksheet.

CONTACT INFORMATION

Name **Age** **Relation to case**

Contact Phone #

Active Surveillance for S/S	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Indicate Yes or No if S/S is present							

Vaccinated? ☐ **Yes** ☐ **No** ☐ **Unknown**
If vaccinated # of doses: ☐ **≤ 3** ☐ **Unknown**
Time since last dose: ☐ **< 10 yrs** ☐ **> 10 yrs**

Culture taken	Yes	No	Unknown	Culture Results	Positive	Negative	Date of Culture
Nasopharyngeal							
Oropharyngeal							

Antibiotic Prophylaxis: ☐ **Yes** ☐ **No** **Medication:**

Name **Age** **Relation to case**

Contact Phone #

Active Surveillance for S/S	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Indicate Yes or No if S/S is present							

Vaccinated? ☐ **Yes** ☐ **No** ☐ **Unknown**
If vaccinated # of doses: ☐ **≤ 3** ☐ **Unknown**
Time since last dose: ☐ **< 10 yrs** ☐ **> 10 yrs**

Culture taken	Yes	No	Unknown	Culture Results	Positive	Negative	Date of Culture
Nasopharyngeal							
Oropharyngeal							

Antibiotic Prophylaxis: ☐ **Yes** ☐ **No** **Medication:**

Name **Age** **Relation to case**

Contact Phone #

Active Surveillance for S/S	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Indicate Yes or No if S/S is present							

Vaccinated? ☐ **Yes** ☐ **No** ☐ **Unknown**
If vaccinated # of doses: ☐ **≤ 3** ☐ **Unknown**
Time since last dose: ☐ **< 10 yrs** ☐ **> 10 yrs**

Culture taken	Yes	No	Unknown	Culture Results	Positive	Negative	Date of Culture
Nasopharyngeal							
Oropharyngeal							

Antibiotic Prophylaxis: ☐ **Yes** ☐ **No** **Medication:**

Name **Age** **Relation to case**

Contact Phone #

Active Surveillance for S/S	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Indicate Yes or No if S/S is present							

Vaccinated? ☐ **Yes** ☐ **No** ☐ **Unknown**
If vaccinated # of doses: ☐ **≤ 3** ☐ **Unknown**
Time since last dose: ☐ **< 10 yrs** ☐ **> 10 yrs**

Culture taken	Yes	No	Unknown	Culture Results	Positive	Negative	Date of Culture
Nasopharyngeal							
Oropharyngeal							

Antibiotic Prophylaxis: ☐ **Yes** ☐ **No** **Medication:**

Name **Age** **Relation to case**

Contact Phone #

Active Surveillance for S/S	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Indicate Yes or No if S/S is present							

Vaccinated? ☐ **Yes** ☐ **No** ☐ **Unknown**
If vaccinated # of doses: ☐ **≤ 3** ☐ **Unknown**
Time since last dose: ☐ **< 10 yrs** ☐ **> 10 yrs**

Culture taken	Yes	No	Unknown	Culture Results	Positive	Negative	Date of Culture
Nasopharyngeal							
Oropharyngeal							

Antibiotic Prophylaxis: ☐ **Yes** ☐ **No** **Medication:**

Diphtheria
Attachment – Diphtheria Template Letter to Parents

Date

Dear Parent,

There has been a case of diphtheria diagnosed in the daycare/school that your child attends. Diphtheria is a rare disease which may cause fever, sore throat, and a yellow-white discharge over the back of the throat. An information sheet about diphtheria is included with this letter.

Public health will be reviewing immunization records for all the children and providing immunizations to any child who requires further immunization.

All children who have been in contact with diphtheria should have a throat swab and nasal swab collected and then should be started on preventive medication. Contact your family doctor to have swabs taken and antibiotics started.

If the lab tests indicate that your child is infected with diphtheria your physician will be providing advice about further treatment and testing.

If you have any questions or concerns contact the local Public Health office, your family physician, or the HealthLine at 1-877-800-0002.

Sincerely,

_____
Medical Health Officer

Phone: _____