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control of
Communicable
Diseases
among school age children



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NEW JERSEY STATE DEPARTMENT OF HEALTH
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CONTROL OF
COMMUNICABLE DISEASES
AMONG
SCHOOL AGE CHILDREN

Suggestions for the Guidance
of Local Health and School Officials in
Fixing Periods of Isolation and Quarantine
for Exclusion of Cases and Home
Contacts from School and
Other Gatherings

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1954

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N.J. DEPARTMENT OF HEALTH,
1954

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CONTROL OF COMMUNICABLE DISEASES AMONG SCHOOL AGE CHILDREN

Prevention of the spread of communicable diseases in public, private, or Sunday schools, dancing classes and other places where children gather calls for cooperation between local public health officials and school officials. Such a cooperative program should include a system of prompt reciprocal reporting of cases of communicable diseases between health and school authorities, as well as the establishment of basic policies dealing with the exclusion and readmission of children ill with or exposed to communicable diseases.

Reporting Cases of Communicable Diseases

The first step in the control of communicable diseases is the knowledge of when, where, and under what conditions these diseases are occurring.

All the diseases listed below are reportable. Those which are italicized have not been declared communicable for purposes of the State Sanitary Code.

Amebiasis	Meningococcal meningitis
Anthrax	<i>Mental Deficiency</i>
<i>Botulism</i>	Ophthalmia neonatorum
Brucellosis	Pertussis (whooping cough)
<i>Cerebral Palsy</i>	Plague
Cholera	Pneumonia, all forms
Dengue	Poliomyelitis
Diarrhea of New-born	Psittacosis
Diphtheria	Q fever
<i>Epilepsy</i>	Rabies
<i>Food Poisonings</i>	Rocky Mountain spotted fever
Glanders	Salmonellosis (other than typhoid fever)
Infectious encephalitis	Shigellosis
Infectious hepatitis, including serum hepatitis	Smallpox
Influenza	Streptococcal sore throat, including scarlet fever
<i>Leprosy</i>	<i>Tetanus</i>
Leptospirosis	<i>Trachoma</i>
Malaria	<i>Trichinosis</i>
Measles (rubeola)	

Tuberculosis, all forms
 Tularemia
 Typhoid fever
 Typhus fever
 Venereal diseases
 Chancroid

Gonorrhea
 Granuloma inguinale
 Lymphogranuloma venereum
 Syphilis
 Yellow fever

Every teacher, nurse, and school physician is obliged by the State Sanitary Code to report the occurrence of suspected cases of food poisoning and communicable diseases listed above to the school principal or other person in charge of a school who in turn is to report the suspected illness to the local board of health.

If a local board of health, by ordinance, requires the reporting of certain communicable diseases not listed above, it should also keep local physicians and school authorities informed of the isolation, quarantine, and other restrictions to be observed in such special cases.

Procedures for Disease Control among School Age Children

Procedures for disease control among school age children should include the following:

1. Prompt report by the school principal to the local health department of the name and address of any person attending or employed in a school suspected to be ill with food poisoning or a communicable disease.
2. Notification by the local health department to local school officials of each case of reportable communicable disease known by the local health department to exist either in a person attending or employed in a school or in a member of the household of such a person.
3. Investigation by the local health department of each known or suspected case of reportable communicable disease when necessary to protect the public health and in suspected cases, the establishment of the true character of the illness by the family physician or local health department.
4. Exclusion from school of any person attending or employed in a school ill with or suspected of having a reportable communicable disease until the exclusion is terminated by written permission of the health officer.
5. Exclusion from school of any person attending or employed in a school who is a member of a household

which there occurs a reportable communicable disease until the exclusion is terminated by written permission of the health officer.

Incubation Periods

For purposes of the State Sanitary Code, the maximum period of certain communicable diseases is as follows:

Diphtheria	7 days
Measles	14 days
Meningococcal meningitis	7 days
Pertussis (whooping cough)	14 days
Poliomyelitis	14 days
Smallpox	21 days
Streptococcal sore throat, including scarlet fever....	7 days

Mild and Unrecognized Cases

Typical cases of communicable diseases can usually be definitely recognized. In very mild cases, however, recognition of the true nature of the illness may be difficult because the symptoms are modified. In some diseases such as diphtheria, laboratory tests are of great aid in making a diagnosis. In a number of communicable diseases, early symptoms resemble the common cold and, therefore, a child showing such symptoms should be considered a possible menace to the health of other children, not only because of the likelihood of spreading colds but also because the symptoms may really be due to some other disease. Sore throat may be the forerunner of some of the communicable diseases.

In efforts to prevent the spread of communicable diseases, there should be stressed the need of recognizing cases early and of searching for and discovering the very mild cases.

Certain diseases are also spread by healthy "carriers" who harbor causative germs of communicable disease but who are not made ill by them. Such a person may transmit germs to others who may be made ill. Carriers of some diseases may be identified by laboratory tests.

The early discovery of infected persons and the prompt separation of such persons from others are ways to prevent the spread of some of the communicable diseases to non-immune persons.

Immunization Against Disease

Diphtheria, pertussis, tetanus, and smallpox are among the diseases that can be prevented effectively by immunization and vaccination. Children should be immunized against these diseases before they reach the age of one year. On entrance into school and periodically thereafter throughout the school years, children should be reimmunized and revaccinated to insure a high level of protection.

IMMUNIZATION SCHEDULE

AGE IN YEARS	1	2	3	4	5	6	7	8	9	10	11	12	13	14
SCHOOL GRADE														
RECOMMENDED SCHEDULE	DPT S	B S		B			B			B	S		B	
IF PRESCHOOL IMMUNIZATIONS HAVE BEEN NEGLECTED		DPT S	B				B			B	S		B	

Code:

- DPT—Diphtheria Pertussis Tetanus inoculation
S —Smallpox vaccination
B —Booster Diphtheria Pertussis Tetanus inoculation

A board of education of any school district may require immunization against diphtheria and vaccination against smallpox as a prerequisite to attendance at school (R.S. 18:14-64.2). Children may be excused if their parents object on the grounds that immunization or vaccination would interfere with their free exercise of religious principles. Children who cannot be immunized or vaccinated for medical reasons may be excused upon written request of their attending physician.

Closing of Schools During Outbreaks

When a communicable disease is prevalent in a community or in a school, experience has shown that it is usually wise *not* to close the school if provision is made for examination of children at school by a physician or nurse.

Cleaning and Disinfection of School Rooms, Books, and Other Equipment

Gaseous fumigation of a school room has practically no effect in preventing cases of communicable disease; a more effective measure is washing with warm water and soap surfaces and articles likely to be touched by hands.

Books may be exposed for several hours to the sun and air in an upright position with the pages fanned.

Personal Cleanliness

The adoption and practice of habits of personal cleanliness will increase the chances of an individual escaping communicable diseases. Some of these personal habits are:

1. Keep the body clean by frequent soap and water baths.
2. Wash hands in soap and water immediately after going to toilet.
3. Wash hands before eating.
4. Keep unclean hands and articles away from the mouth.
5. Avoid the use of common drinking, eating, or toilet articles such as drinking cups, eating utensils, and towels.
6. Avoid exposure to persons who are coughing and sneezing.

Isolation and Quarantine

One of the oldest methods in controlling the spread of communicable disease is to establish such isolation and quarantine restrictions as will prevent the direct or indirect conveyance of the infectious agent to susceptible persons.

Precautionary measures should be taken voluntarily when the presence of a communicable disease is suspected and before the diagnosis is established, particularly when diseases are prevalent in a community.

When the term isolation or exclusion from school is used in connection with such diseases as the common cold, chickenpox, German measles, and mumps, it is to be understood that the establishment of restrictions is not, under ordinary circumstances, a necessary or practicable procedure for official requirement or enforcement, but a practice to be instituted under the direction of the attending physician, and its duration to be generally at his discretion.

When there is evidence of departure from normal health of any child, the principal of the school shall, upon the recommendation of the school physician or school nurse, exclude such child from the school building, and in the

absence from the building of the school physician or school nurse, the classroom teacher may exclude the child from the classroom and the principal may exclude the child from the school building.

Persons ill with communicable as well as non-communicable diseases should be kept apart from others to prevent the development of secondary infections which may lead to serious complications. This medical and nursing practice is for the protection of the patient. Obligatory isolation and quarantine restrictions are to prevent the transmission of disease to others.

Health Officer to Determine Necessity for and Conditions of Quarantine

When a person has been exposed at home or elsewhere to a person ill with a communicable disease, the health officer may, at his discretion, refrain from quarantining or quarantine such exposed person under conditions he may specify. The period of quarantine should not exceed the maximum period of incubation of the disease to which such a person was exposed.

Establishment of Isolation or Quarantine by Health Officers

Upon receiving a report of a communicable disease the health officer should establish by written order such isolation, quarantine, or other restrictive measures as are required by law or regulation, or as may be necessary to prevent or control disease. Such an order shall remain in force until terminated by written permission of the health officer.

Posting Placards

The health officer may post or cause to be posted a placard indicating the existence of a communicable disease in a house or apartment.

The object of placarding is primarily to keep unauthorized persons from entering the premises during the period of communicability of the isolated person. Placarding is not required by State regulation but may be required by the local health officer so decides.

The most serious objection to placarding is that it takes the health officer and public health nurses away from most important duties. Occasional placarding may be necessary in uncooperative families.

Voluntary cooperation of parents, based upon an understanding of the nature of the disease and method of spread should be the objective of school and health officials.

CHICKENPOX, GERMAN MEASLES, AND MUMPS

These diseases are usually minor infections when they occur in childhood. In adults, however, they are often associated with severe symptoms and complications.

All these illnesses are due to filterable viruses which enter and leave the body through the nose and throat and spread from person to person through droplets discharged in coughing and sneezing or by contact with articles freshly soiled by secretions and discharges.

Chickenpox, German measles, and mumps are not specifically mentioned in the list of communicable diseases made reportable by the State Sanitary Code.

Isolation of Cases and Quarantine of Contacts

The establishment of restrictions for chickenpox, German measles, and mumps, under ordinary circumstances, is not a necessary or practicable procedure for official requirement or enforcement for the following reasons:

1. Completely reliable preventive immunizations against these diseases are not available.
2. Immunity can be acquired only by having these diseases.
3. These diseases are considered minor infections in childhood and early natural exposure is desirable.
4. Many are not under medical care.
5. Chickenpox in an adult may be a serious illness. Mumps occurring after puberty is frequently complicated by the development of orchitis. German measles occurring during the first trimester of pregnancy has been associated with congenital defects in the newborn, a good reason why girls should acquire this infection early in life.
6. Isolation of cases and quarantine of contacts are ineffective control measures because the spread takes place before a rash or other signs appear.
7. Exclusion from school during the acute period of illness may be established by the attending physician and its duration may be at his discretion.
8. Except for exclusion from school during the acute period of illness, local health departments usually omit routine investigations, quarantine of contacts, and other control measures.

When Reporting, Isolation, and Quarantine are Required by Local Ordinance

If a local board of health, by ordinance, requires the reporting of chickenpox, German measles, and mumps and the observance of isolation, quarantine, or other restrictions, it should keep physicians and school authorities informed of the measures to be observed.

COMMON COLD

Signs and Symptoms

A highly infectious acute catarrhal condition of the upper respiratory tract, usually accompanied by fever, chilly sensations, coryza, and general lassitude. The nasal discharge tends to become mucopurulent due to secondary bacterial invasion and the infection may spread to the lower respiratory tract and middle ear.

Causative Agent

One or more viruses.

Source of Infection

Discharges from nose and mouth of infected persons.

Methods of Spread

Usually directly by coughing, sneezing, and explosive manner of speech, by which droplets pass in the air from the infected person to susceptible persons within short range. Indirectly by handkerchiefs, eating utensils, or other articles freshly soiled by discharges of the infected person.

Incubation Period

Probably between twelve and seventy-two hours.

Preventive Measures

Rest in bed during acute stage.

Avoid exposure of others, particularly little children feeble or aged persons, or persons suffering from other illnesses.

Education in the niceties of personal hygiene such as covering the mouth and nose when coughing and sneezing.

Proper disposal of nose and mouth secretions to avoid contamination of hands and articles of common use.

DIPHTHERIA

Signs and Symptoms

Infection generally of the air passages, especially tonsils, throat, and nose, marked by grayish white patches or membrane formation accompanied by chilliness and fever. Mild cases may seem like an ordinary sore throat without noticeable patches. Nasal diphtheria may show a one-sided nasal discharge with irritation around the nostril.

Early suspicion of the disease and diagnosis are important for successful treatment with antitoxin and for the control of spread to susceptible contacts.

Antibiotic therapy may eliminate the organisms from the nose and throat but full therapeutic doses of antitoxin are indispensable in neutralizing the free circulating toxin.

Causative Agent

Diphtheria bacillus.

Source of Infection

Discharges and secretions from surface of the nose, throat, and nasopharynx of infected persons and carriers of the bacillus.

Methods of Spread

Directly by personal contact with an infected person or carrier, or indirectly by contact with articles soiled with the discharges of such persons. Raw milk has served as a vehicle.

Period of Incubation

Usually within seven days.

Period of Isolation for Patient

Until two successive cultures from the nose and two from the throat taken not less than twenty-four hours apart beginning at least seven days after cessation of drug therapy, if used, are found to be free from virulent diphtheria bacilli by a laboratory approved by the State Department of Health for such examination.

Period of Quarantine for Contacts

Twenty-four hours after satisfactory isolation of patient has been established, contacts may be released when one culture from the nose and another from the throat are found to be free from virulent diphtheria bacilli by a laboratory approved by the State Department of Health for such examination.

If satisfactory isolation of patient has not been established, members of household shall be quarantined until the period of isolation of the last case in the household has been terminated and the release culture standards described above have been met.

FOOD POISONING

In a very general sense the term food poisoning includes the ill-effects caused by eating contaminated or infected food. The signs and symptoms may result from:

1. Toxins which have been formed by the growth of bacteria in food. (Botulinus poisoning, staphylococcus poisoning)
2. The presence of large numbers of living bacteria in the food. (Salmonellosis other than typhoid fever)

BOTULINUS POISONING

A highly fatal poisoning characterized by headache, general weakness, and often a complete lack of gastro-intestinal symptoms. Disturbances of vision appear early and involvement of the pharyngeal muscles may produce difficulty in chewing, swallowing, and talking.

Causative Agent

Toxins produced by the botulinus bacillus.

Source of Poisoning

The organism is very common in nature so that almost any article of food may be contaminated under certain conditions. In most instances poisoning is the result of eating home canned food products which were not properly processed to destroy the resistant spore form of the organism.

Methods of Control

The condition is a poisoning, not an infection, and isolation and quarantine procedures are not required.

Housewives and others concerned with home canning should be thoroughly informed as to time, pressure, and temperature factors essential to safe processing.

Home canned green and leafy vegetables should be boiled before tasting and serving.

Commercial canneries are seldom at fault because of governmental regulations and inspection of the processing of canned and preserved foods.

STAPHYLOCOCCUS POISONING

Staphylococci multiplying in food produce a toxin which will cause food poisoning among persons who have eaten food in which this action has occurred. The onset of illness is sudden and usually within two to four hours after ingestion of food. Nausea, vomiting, abdominal cramps, and prostration are usually observed. Fever occurs infrequently.

Causative Agent

Toxin of certain strains of staphylococci.

Source of Poisoning

The organisms responsible for this type of poisoning may be present in the nose and throat of healthy persons, but become more abundant at the time of upper respiratory tract infections. They are also found in impetigo contagiosa, boils, and other skin and body lesions.

The organisms reach food products from the above sources. Cream or custard filled pastry and processed meat provide particularly favorable conditions under which staphylococci can grow and produce their toxin.

Method of Control

The condition is a poisoning, not an infection, and isolation and quarantine procedures are not required.

All cases and suspected cases should be reported so that an investigation can be made of the possible causes.

Food handlers suffering from pyogenic skin conditions, particularly of the hands, should be excluded from food handling.

Foods under preparation should not be permitted to stand at room temperature longer than necessary. Custards, cream fillings, sliced and chopped meats should always be under refrigeration to prevent staphylococci accidentally introduced from multiplying. Left over foods should be properly cared for and kept under refrigeration.

SALMONELLOSIS (Other Than Typhoid Fever)

Salmonellosis other than typhoid fever was previously more familiarly known as paratyphoid fever.

Although a variety of illnesses result from infections of this nature, the most common is the acute diarrheal disorder with abdominal cramps, nausea, vomiting, and fever.

Causative Agent

Organisms belonging to the group called Salmonella.

Source of Infection

Feces and eggs of domestic fowl, and feces of such household pets as dogs and cats, and most farm animals. Salmonellae have also been recovered in nature from wild fowl, mammals, and reptiles. Other sources are human acute and convalescent cases and carriers.

Methods of Spread

Epidemics are usually traced to improperly prepared foodstuffs, particularly roast fowl and dishes prepared with eggs and egg products insufficiently cooked. Non-epidemic cases may arise by the same mechanism as epidemics or by direct or indirect transfer of infective material from the human or animal source to a susceptible individual.

Period of Incubation

In epidemics, usually about twelve hours. In the non-epidemic disease, it is from one to seven days.

Period of Isolation for Patient

Until clinical recovery and until three successive, authentic, fresh specimens of feces and urine taken at intervals of not less than seven days, beginning at least seven days after termination of specific drug therapy, have been reported negative from Salmonella paratyphi, Salmonella schottmuelleri, and other Salmonella organisms by a laboratory approved by the State Department of Health for such examination.

Period of Quarantine for Contacts

Family contacts need not be quarantined unless employed as food handlers. Family contacts who are food handlers shall not be employed as such during period of

contact and until two cultures of authentic, fresh specimens of feces and urine collected not less than twenty-four hours apart have been reported negative for Salmonella paratyphi, Salmonella schottmuelleri, and other Salmonella organisms by a laboratory approved by the State Department of Health for such examination.

Persons who reside, board, lodge, or visit in a household where they may come in contact with any person ill or infected with Salmonellosis (other than typhoid fever) are prohibited from working in any establishment where food intended for sale or distribution is manufactured, packed, stored, or handled unless permission is granted by the local health officer or the State Department of Health.

MEASLES (Rubeola)

Signs and Symptoms

The disease usually begins with symptoms like a cold in the head, with running nose, sneezing, inflamed watery eyes and fever, often accompanied by a cough. In about 97% of patients bluish-white, pin point specks (Koplik spots) can be seen on the inner mouth surfaces at least two or three days before the rash appears. A dull red blotchy rash appears about the head and later spreads to the body.

Causative Agent

A filterable virus.

Source of Infection

Secretions of the nose and throat of a person who has measles.

Methods of Spread

Directly by personal contact with an infected person or by breathing in droplets of moisture expelled by such a person in coughing or sneezing, especially during the early stages of the disease before the rash appears.

Period of Incubation

Usually within fourteen days. When immune globulin has been given too late to prevent infection, the incubation period may be as long as twenty-one days.

Period of Isolation for Patient

As soon as fever and catarrhal symptoms of the eyes, nose, and throat are detected and until seven days after appearance of rash.

Period of Quarantine for Contacts

Household contacts under eighteen years, who have not had measles, shall be quarantined from the seventh to the fourteenth day after exposure.

MENINGOCOCCAL MENINGITIS

Signs and Symptoms

The onset is usually sudden with fever, intense headache, pain in the back, stiff neck, nausea, vomiting, and occasionally a fine hemorrhagic skin eruption.

Causative Agent

Organisms known as meningococci.

Source of Infection

Discharges from the nose and throat of a person ill with or recovering from the disease or similar discharges from a well person who is a carrier.

Methods of Spread

Directly by personal contact with a person ill or convalescing from the disease, or a carrier. Indirectly by contact with articles freshly soiled with discharges from the respiratory tract of an infected person, or carrier.

The prophylactic treatment of contacts and carriers with sulfadiazine may reduce spread during an epidemic.

Period of Incubation

Usually seven days.

Period of Isolation for Patient

Until seven days after onset, or for the duration of fever, if longer.

Period of Quarantine for Contacts

Household contacts under eighteen years shall be quarantined for seven days.

PERTUSSIS (Whooping Cough)

Signs and Symptoms

This disease begins like an ordinary cold but soon is characterized by a cough which usually becomes paroxysmal within one to two weeks. The paroxysms are characterized by repeated series of violent coughs without intervening inhalation, often followed by an inspiratory whoop.

In some cases no whoop is noted. Paroxysms frequently end with vomiting of clear, tenacious mucus.

Causative Agent

Pertussis bacillus.

Source of Infection

Discharges from the upper respiratory tract of infected persons.

Methods of Spread

By direct contact with an infected person, by droplet infection, or indirectly by contact with articles freshly soiled with the discharge of such person.

Period of Incubation

Usually within fourteen days.

Period of Isolation for Patient

Until twenty-one days after onset of the paroxysmal cough.

Period of Quarantine for Contacts

No restrictions.

POLIOMYELITIS

Signs and Symptoms

An acute illness often with vague and varying symptoms but usually with fever, sore throat, loss of appetite, vomiting, and headache. In some instances these early symptoms are accompanied or followed by pain in the extremities, soreness and stiffness in the neck and back, and paralysis.

A form of illness, presumptively abortive poliomyelitis, presents only vague symptoms without paralysis or other signs referable to the central nervous system. Patients who run a non-paralytic course should be tested for muscle power at intervals for approximately three years.

Causative Agent

A filterable virus.

Source of Infection

Discharges from the throat, nose, and bowels of persons ill with or recovering from poliomyelitis and probably

similar discharges from persons who may have had the abortive type of the disease.

Methods of Spread

The method of transmission from one person to another has not yet been definitely determined. Although the transmission appears to be chiefly through the discharges from the respiratory tract of infected persons, other methods such as food, insects, and sewage-contaminated water have also been implicated. Abortive cases probably play an important part in the dissemination of the disease.

Period of Incubation

Usually within fourteen days.

Period of Isolation for Patient

For seven days after onset or for the duration of fever, if longer.

Period of Quarantine for Contacts

Intimate home contacts under the age of eighteen years shall be quarantined for fourteen days.

SMALLPOX

Signs and Symptoms

The disease is characterized by severe constitutional symptoms, headache, chill or chilliness, aching of back and limbs, rapidly mounting fever, and prostration.

On or about the third day the severity of the symptoms and fever subside and as the patient begins to feel better a crop of red shot-like papules or pimples appear on the face and wrists extending later to the forearms, upper arms, and thorax. The legs and abdomen are often only slightly involved.

Vesicles or blisters form on top of the papules. The fluid in the vesicles is clear at first and later becomes cloudy and pustular. The pustules are characterized by a depressed or umbilicated center.

Causative Agent

A filterable virus.

Source of Infection

Discharges from the mouth and nose of a person who has smallpox; the contents of the vesicles or pustules and the scabs.

Methods of Spread

Directly by personal contact with an infected person or by breathing in droplets expelled by such a person in coughing or sneezing. Indirectly by contact with articles freshly soiled with discharges from lesions of the skin and mucous membranes.

Period of Incubation

Usually within twenty-one days.

Period of Isolation for Patient

Until fourteen days after onset of illness and until all lesions are healed.

Period of Quarantine for Contacts

Home contacts and other persons exposed to the risk of contracting smallpox by proximity to a case or suspected case of the disease shall be vaccinated and quarantined until vaccination is successful or until evidence of protection is established to the satisfaction of the local health officer. Persons released from quarantine shall be kept under observation for not less than twenty-one days from the date of last exposure.

Contacts who refuse to be vaccinated shall be quarantined for at least twenty-one days from the date of last exposure and until discharged by the local health officer.

STREPTOCOCCAL SORE THROAT, INCLUDING SCARLET FEVER

Signs and Symptoms

Streptococcal sore throat is scarlet fever without a rash. The diseases are similar in all respects except that in streptococcal sore throat the characteristic rash does not appear if an individual has had a previous streptococcal infection and has retained immunity to the toxin of the streptococcus which produces the rash.

The disease usually begins abruptly with fever, sore throat, and other general symptoms. The mucous membrane of the throat is fiery red. Red papillae of the tongue protrude through a coating (strawberry tongue). The rash, when present, is diffuse, bright scarlet red, appearing most often on the body and inner aspects of the arms and

thighs. Desquamation begins as a fine scaling of the face and body and later large areas of the skin of the palms and soles may peel off freely.

Causative Agent

Group A hemolytic streptococci of which there are at least forty types.

Source of Infection

Secretions from the nose and throat, or discharges from purulent complications of acutely ill or convalescent patients, or carriers, or through contact with objects contaminated by them.

Methods of Spread

Transmission can occur directly or indirectly.

The direct route involves contact with the patient, a carrier, or objects contaminated by secretions or discharges.

By the indirect route infection develops by breathing air contaminated with streptococci contained in floor dust, lint from bedclothing, personal clothing, handkerchiefs, or droplets discharged by coughing or sneezing. Outbreaks may follow the ingestion of raw milk.

Period of Incubation

Usually within seven days.

Period of Isolation for Patient

In uncomplicated cases, until clinical recovery, or not less than seven days. Patients with complications resulting in purulent discharges shall be isolated as long as discharges persist.

Period of Quarantine for Contacts

Home contacts under the age of eighteen years shall be quarantined for seven days.

TYPHOID FEVER

Signs and Symptoms

The symptoms of typhoid fever are subject to great variation in character and intensity. The disease may take the form of a mild illness lasting only a week or two, or it may last six to eight weeks.

Usually there is a gradual development of malaise, headache, and fever causing the patient to go to bed about the third or fourth day. The fever is remittent in type, tending to be higher each day until reaching a plateau where it is sustained about a week or two before lessening.

Round, slightly elevated, rose-colored spots which blanch under pressure appear on the upper abdomen, trunk, and lower chest during the second and third week.

Causative Agent

Typhoid bacilli (*Salmonella typhosa*).

Sources of Infection

Feces and urine of infected individuals and carriers.

Methods of Spread

Directly through contact with the feces and urine of infected individuals or carriers. Indirectly through a variety of food which may be contaminated with feces or urine from a typhoid case or carrier.

Period of Incubation

Usually within fourteen days.

Period of Isolation for Patient

Until clinical recovery and until three successive, authentic, fresh specimens of feces and urine taken at intervals of not less than seven days, beginning at least seven days after termination of specific drug therapy, have been reported negative for *Salmonella typhosa* by a laboratory approved by the State Department of Health for such examination. Recovered cases shall submit, commencing ninety days after discharge from isolation, at least four authentic, fresh stool specimens not less than three months apart. If any of the specimens in this period are positive for *Salmonella typhosa*, the individual shall come under the regulations governing carriers.

Period of Quarantine for Contacts

Family contacts need not be quarantined unless employed as food handlers. Family contacts who are food handlers shall not be employed as such during period of contact, and until two cultures of authentic, fresh specimens of feces and urine collected not less than twenty-four hours apart have been reported negative for Salmonella typhosa by a laboratory approved by the State Department of Health for such examination.

Persons who reside, board, lodge, or visit in a household where they may come in contact with any person ill or infected with typhoid fever are prohibited from working in any establishment where food intended for sale or distribution is manufactured, packed, stored, or handled unless permission is granted by the local health officer of the State Department of Health.

