Child Care and K-12 School Settings – Selected Infectious Diseases

Summary

Childcare settings include home care by relatives, childcare cooperatives, parents' day-out programs, family day homes, and large childcare centers.

Infectious diseases occur with increased frequency in group childcare settings. There are several factors that affect the risk of disease in these settings, including age of child, immunity of the group, number of children, the degree of close contact between children and providers, and the hygienic habits of the children and care providers. This section provides information about infectious diseases not individually notifiable by the New Mexico Administrative Code, but which may commonly be seen in childcare facilities.

The table at the end of this chapter contains a list of diseases, some of which are notifiable conditions under New Mexico Administrative Code, and exclusion criteria for each disease. Please call the Infectious Disease Epidemiology Bureau (IDEB) at 505-827-0006 regarding suspected outbreaks.

Contact Precautions – General Recommendations

When in direct contact with a body area that is known or suspected to be infectious, barrier protection should always be used. This includes glove use and prompt hand washing before and after putting on the gloves. Depending on how extensive the direct contact with the infected area is, gowns may also be used. Contact with items used by the infected person may also transmit infection. Gloves should be used when exposed to contaminated inanimate objects. Since the hands are the most common method of transmission of these diseases, hand washing after the removal of gloves is required.

The child care center also should review its infection control protocols with staff, and emphasize the following:

- Standard precautions should be followed including strict hand washing routines for staff and children and routines for handling fecally contaminated materials.
- Frequently mouthed objects should be cleaned and sanitized daily. Items should be washed with dishwashing detergent and water, and then rinsed in freshly prepared (daily) household bleach solution (dilute 1 cup bleach in 9 cups of water).
- Food handling and diaper changing areas should be physically separated and cleaned daily.
- Diaper changing surfaces should be nonporous and cleaned with a freshly prepared (daily) household bleach solution (dilute one cup bleach in nine cups of water). Cleaning of diaper changing surfaces after each use is required; diapers should be disposed of properly. If available, non-porous gloves should be worn when changing diapers.
- Ideally institute and maintain a system of stool monitoring (i.e., diaper logs) for all infants and children who are not toilet trained. Diaper logs are recommended whenever a day care attendee is diagnosed with an enteric pathogen. At a minimum, diaper logs should document the quality (e.g., formed, loose, watery, blood present, mucus present) and time of each diaper change. The log should be reviewed each day with the center director, or their designated personnel, and personnel from NMDOH who are being consulted and/or investigating individual cases, clusters, or outbreaks at the center. The

purpose of the log is to assist in the identification of potential new cases, to prioritize testing recommendations, and assist in determining if exclusion of the infant or child is necessary until infection can be ruled out.

- Animals are not recommended at group childcare settings. However, if an animal is present and has diarrhea, or any signs of illness, the animal should be isolated from children and taken to a veterinarian for diagnosis and treatment.

Other General Recommendations

- Other important environmental infection control and prevention measures for child care settings include having adequate air flow in the building; providing enough physical space in a facility and between cots for naps (which may increase social distancing and reduce droplet spread); ensuring physical separation and separate personnel (if possible) involved in food preparation and diaper changing; requiring appropriate handling of animals (and excluding reptiles, turtles, amphibians, birds, primates, live poultry, ferrets, or rodents in the facility), with hand hygiene before and after contact; and adhering to recommended ratios of children to care providers.
- Childcare staff should be familiar with applicable New Mexico Administrative Code regarding:
    - Incident reporting of illnesses and communicable disease, and
    - Training requirements for prevention and control of infectious diseases including immunization.

Skin and Scalp Illnesses

- Head Lice
- Herpes Simplex
- Impetigo
- Ringworm
- Scabies

Head Lice – Pediculosis capitis

Agent

Pediculus humanus capitis is the human head louse. Adult lice and nymphs (immature lice), feed on human blood. Adult lice deposit their eggs (nits) on hair shafts. Lice from nymph to adult stage, as well as the eggs, are visible on inspection. Adult lice are up to 3mm in length. Outbreaks of head lice are common among children in schools and daycare, affecting all socioeconomic groups. Because there is no evidence that head lice transmit disease, pediculosis is considered a nuisance rather than a health hazard.

Transmission

Reservoir:

Humans.

Mode of Transmission:

Direct contact with an infected person and (uncommonly) objects used by them. Lice are spread by close head-to-head contact with someone who has head lice. Head lice do not fly or jump; they crawl from place to place.

Period of Communicability:

As long as lice or eggs remain alive on the infected person or on fomites. The adult's life span is approximately one month. Head lice can survive <1 day at room temperature away from the scalp.

Clinical Disease

Incubation Period:

The life cycle is composed of three stages: eggs, nymphs and adult. The incubation period from laying of the eggs to hatching of the first nymph is 6 to 9 days. Lice mature to the adult stage approximately 7 days later. Adult females then may lay eggs (nits), but these will develop only if the female has mated.

Illness:

Infestation of head lice occurs in head hair. Itching is the most common symptom of head lice, but not always present, particularly when newly arrived to the head. Excoriation and crusting caused by secondary bacterial infection may occur.

Diagnosis Note - Misdiagnosis of head lice infestation is common.

Proper diagnosis of head lice is the most important step in controlling infestation. Identification of eggs and lice can be done by the naked eye, although adult lice are seldom seen because they move rapidly in dry hair and conceal themselves. Inspect for live lice especially at the hairline, including behind the ears, and the nape of

the neck. Most persons with head lice infestation will have between 10 and 20 lice. Lice live near the scalp to feed and to maintain their body temperature. Nits are grayish-white round balls that are attached to the hair shaft.

Treatment

Two methods of treatment are commonly used:

1. Chemical treatment to kill the lice and nymphs: Chemical treatment has been the first line of defense for many years; consequently, lice have become resistant to insecticides. Pediculoside resistance is approaching 50%. Educate the parent on the proper regime by following the manufacturer's recommendations. Retreatment may be needed after eggs present at the time of initial treatment have hatched but before new eggs are produced; retreatment intervals vary by product. Detection of living lice on scalp inspection 24 hours or more after treatment suggests incorrect use of pediculicide, hatching of lice after treatment, reinfestation, or resistance to therapy, because pediculicides kill lice shortly after application. All household members should be checked for live lice and everyone with lice in the household should be treated at the same time.
2. Non-chemical treatment: Involves applying hair conditioner to wet washed hair, then combing with a louse comb (special fine toothed comb). The caregiver sections off the hair and removes the lice a section at a time combing from the scalp out. Rinse and dry the hair once the entire head has been combed. Repeat this process every two days over a 10 day period. Recheck the head for re-infestation once a week for one month. If adult lice are found, then restart the combing process with the fine-toothed comb. Check all household members for live lice and nits and treat using this same regime.

Discuss the importance of appropriate treatment of hair. The use of alternative treatments such as olive oil, mayonnaise, margarine, or petroleum jelly has not been evaluated scientifically.

Control Measures

Routine screening or performing "head checks" is not recommended.

Household and other close contacts should be examined and treated if infested.

Bedmates of infested people should be treated prophylactically at the same time as the infested household members and contacts. Prophylactic treatment of other non-infested people is not recommended.

Children should not be excluded or sent home early from school because of head lice. The "no-nit" policies requiring that children be nit free before returning to school have not been effective in controlling head lice transmission and are not recommended.

Supplemental measures generally are not required to eliminate an infestation. Head lice are only rarely transferred via fomites from shared headgear, clothing, combs, or bedding. Special handling of such items is not likely to be useful. Educating people on transmission, treatment, and management is the best method for controlling head lice.

See Head Lice Fact Sheets (English) (Spanish).

Herpes Simplex

Agent

Herpes simplex virus (HSV) is in the virus family Herpesviridae. Herpes simplex type 1 (HSV-1) is the most common cause of oral and non-genital herpes. Herpes simplex type 2 (HSV-2) is the primary cause of genital herpes. However, either type of virus can be found in either body area. HSV-1 oral lesions (or herpes labialis) will be covered in this section.

Transmission

Reservoir:

Humans.

Mode of Transmission:

Direct contact with HSV shed from oral lesions or secretions or from other skin sites, either from symptomatic persons or those shedding the virus asymptomatically.

Period of Communicability:

HSV can be isolated for at least one week and up to 7 weeks after the primary lesion. An infected person may be asymptomatic and still shed and transmit virus, although patients with recurrent infection shed virus for a much shorter period, typically 3 to 4 days.

Clinical Disease

Incubation Period:

Ranges from 2-14 days.

Illness:

Primary infection with HSV1 may be mild and unapparent and occur in early childhood. Gingivostomatitis is the most common clinical manifestation of primary HSV1 infection. Illness is characterized by fever, irritability, tender submandibular adenopathy, and ulcers on the mucous membranes of the mouth. After primary infection, HSV persists in neural ganglia for life. The common reactivation of latent infection results in fever blisters or cold sores (herpes labialis) manifesting as superficial clear vesicles on an erythematous base, usually on the face or lips, which crust and heal within a few days. Various forms of trauma, fever, physiologic changes, or intercurrent disease precipitate reactivation.

Laboratory Diagnosis

- Viral culture of fluid from lesions or cold sores, or from the mouth, can be performed though diagnostic testing of oral lesions is not common. Some laboratories offer direct fluorescent staining from scrapings of the base of a lesion.
- Polymerase chain reaction (PCR) testing may be available.
- Serologic tests are not helpful for diagnosing acute HSV infections.

Treatment

Episodes of herpes labialis are self-limited and generally do not require treatment. Recurrent episodes or complicated infections should be referred to the child's healthcare provider for medical management.

Control Measures

- Contact isolation with use of barrier protection (gloves) and proper hand hygiene when in contact with potentially infectious lesions. A bandage over the sore, if possible, will reduce contagiousness. Avoid kissing or sharing cups or bottles with an infected child. Equipment, toys, and dishes used by the child should be cleaned with a disinfectant.
- Exclusion – Children with primary HSV gingivostomatitis who do not have control of oral secretions should be excluded from child care until signs and symptoms resolve. There is no exclusion from child care or school for children with simple cold sores (i.e., recurrent HSV).

See Herpes Simplex Fact Sheets (English) (Spanish).

Impetigo

Agent

Impetigo is a bacterial skin infection that is highly contagious. The primary pathogens causing impetigo are *Staphylococcus aureus* and *Streptococcus pyogenes* (group A *Streptococcus* [GAS]).

Transmission

Reservoir:

The only significant reservoir is humans.

Mode of Transmission:

Direct contact with a person with a purulent lesion or who is an asymptomatic carrier of a pathogenic strain. The carrier will be colonized in the nose and throat and transmit the organism by respiratory droplets, or by autoinfection. Hands are the most important mechanism for transmitting infection. Colonization of healthy skin by GAS usually precedes the development of skin infection. Impetigenous lesions occur at the site of breaks in skin such as insect bites or other wounds.

Period of Communicability:

Generally, as long as purulent lesions continue to drain or the carrier state persists.

Clinical Disease

Incubation period:

Streptococcal infections: 7 to 10 days. Staphylococcal infections: Variable.

Illness:

Flat, red, yellow, crusty or weeping lesions seen commonly on the face and arms. The lesions are usually superficial that proceed through vesicular, pustular and encrusted stages. Bullae may form. Constitutional symptoms are usually absent, although streptococcal skin infections can have serious sequelae such as acute glomerulonephritis.

Laboratory Diagnosis

Routine culturing of impetiginous lesions is not usually indicated.

Treatment

- In localized skin infections, cleaning the area and applying appropriate topical antimicrobial ointment.
- Systemic antimicrobial therapy is usually not indicated unless an infection spreads significantly or there is impetigo in multiple family members or child care attendees.
- Treatment decisions must be made by the patient's health care provider.

Control Measures

- Contact precautions using barrier protection (gloves) and good hand hygiene when in contact with the lesions. Hand washing after the removal of gloves is required. Cover the lesion with a bandage. Properly dispose of wound dressings.

- Exclusion - A child with impetigo should be excluded from childcare until well appearing and at least 12 hours after beginning appropriate topical and/or systemic antimicrobial therapy. Close contact with other children during this time should be avoided.

See Impetigo Fact Sheets (English) (Spanish).

Ringworm

Ringworm is a common skin infection that is caused by a fungus. It's called "ringworm" because it can cause a circular rash (shaped like a ring) that is usually red and itchy. Other names for ringworm are based on its location on the body.

- *Tinea pedis* (Athlete's foot) – infection of the foot
- *Tinea corporis*–infection of body
- *Tinea capitis* – infection of the scalp

Agent

Various fungal species of *Microsporum, Epidermophyton* and *Trichophyton*.

Transmission

Reservoir:

Humans and animals, especially dogs, cats, and cattle. The fungus grows best in warm, moist areas.

Mode of Transmission:

Skin-to-skin contact from infected people or animals; or contact from personal items like combs, contaminated clothing or hats, bedding and towels, and shower or pool surfaces.

Period of Communicability:

As long as lesions are present; viable fungus may persist on contaminated materials for long periods.

Clinical Disease

Incubation Period:

Unknown but believed to be 1 to 3 weeks but can be as short as 3 days.

Illness:

Tinea lesions are generally circular, reddish, crusty, and scaly, with a vesiculopapular border; they occur on the face, scalp, and body. Lesions are often itchy. Tinea capitus may present with patchy areas of dandruff-like scaling and hair loss; discrete areas of hair loss with stubs of broken hair; numerous scaly pustules; or a kerion (boggy mass).

Laboratory Diagnosis

Fungal culture and potassium hydroxide wet mount of scrapings from skin lesions.

Treatment

- Tinea corporis and tinea pedis are treated with either topical or systemic antifungal therapy.
- Tinea capitis requires systemic antifungal treatment, usually with oral griseofulvin for at least six weeks for children 2 years and older. Selenium sulfide shampoo is also often used as adjunctive therapy.

Control Measures

- Contact isolation with the use of barrier protection (gloves) and proper hand hygiene when exposed to potentially infectious lesions. A bandage over the sore is recommended.
- Decontaminate sports equipment or wading pools where the fungus may grow.
- Discourage sharing towels, clothing, combs, brushes or hair ribbons.
- Since pets can be the source of infection, have the family pet evaluated by a veterinarian.
- Educate the children and parents about the method of transmission.
- Exclusion – treatment can occur at the end of the day with return the following day.

See Ringworm Fact Sheets (English) (Spanish).

Scabies

Agent

Human scabies is caused by infestation of the skin by the human itch mite, *Sarcoptes scabiei.* The mite has no separate existence off the human body (an obligate parasite). The microscopic scabies mite burrows into the upper layer of the skin where it lives and lays its eggs.

Transmission

Reservoir:

Humans are the source of infestation. Other mites of animals may live on humans but do not reproduce on them.

Mode of Transmission:

Direct, prolonged, close contact with infested skin. Can be acquired during sexual contact.

Period of Communicability:

Until mites and eggs are destroyed by treatment. Ordinarily this is after one or two courses of treatment given a week apart.

Clinical Disease

Incubation Period:

Four to six weeks in people without previous exposure. People who have had previous infestations develop symptoms 1-4 days after re-exposure due to sensitization.

Illness:

Lesions caused by an infestation of mites are characterized by an intensely pruritic, red, vesiculopapular eruption caused by the adult female mites burrowing under the skin to lay eggs. The scabies burrow appears as a gray or white threadlike line. Lesions are commonly found on the finger webs, wrists and elbows, axillary folds, waistline, thighs, naval, genitalia, nipples, abdomen and lower portion of the buttock. In children younger than two years old, the head, neck, palms and soles may be involved. The itching is worse at night and secondary bacterial infections may occur due to group A *Streptococcus* or *Staphylococcus aureus*.

Laboratory Diagnosis

Diagnosis may be established by scraping the mite from its burrow and identifying it microscopically. Often times the burrows have been destroyed by scratching. Prior application of mineral oil or water to the skin facilitates collection of scrapings.

Treatment

- Treatment of choice is topical application of 5% permethrin (Elimite®), particularly for infants (greater than two months of age), children, and pregnant or nursing women. Apply cream to all portions of the body and wash off by bathing 8-14 hours later. Special attention should be given to trimming fingernails and application of treatment in that area.
- After the cleansing bath is taken, a change is made to clean clothing (and bed sheets). Itching may persist several weeks even with successful treatment. Use of oral

antihistamines or topical corticosteroids can help relieve itching. Topical or system antimicrobial therapy is indicated for secondary bacterial infections of excoriated lesions.

- Because of safety concerns and availability of other treatments, Lindane should not be used for treatment of scabies.
- All treatment decisions should be made by the patient's health care provider. Oral medications may be available after consultation with a healthcare provider.

Control Measures

- Children should be treated at the end of the program day and allowed to return to childcare or school after the first course of treatment has been completed. Children should not be excluded or sent home early from school because of scabies.
- All members of the household should be treated at the same time to prevent reinfestation. Manifestations of scabies infestations can appear as late as two months after exposure, during which infected persons can transmit scabies.
- Launder clothing and bed sheets (hot cycle in washer and dryer) used by the patient during the three days prior to initiation of treatment. Items that cannot be washed should be isolated in plastic bags for 7 days. The mites do not survive more than 3-4 days without skin contact.
- Environmental disinfection is unnecessary and unwarranted.
- For scabies among hospitalized patients, contact precautions are recommended until the patient has been treated with an appropriate scabicide.

See Scabies Fact Sheets (English) (Spanish).

Rash Illnesses

- Fifth disease
- Hand, foot, and mouth syndrome
- Scarlet fever (under respiratory infections section)

Fifth Disease

Agent

Human parvovirus B19.

Transmission

Reservoir:

Humans.

Mode of transmission:

Person to person presumably by contact by with respiratory secretions. Rarely transmitted by blood transfusion, direct contact with contaminated blood, or in-uterus transmission from mother to fetus.

Period of communicability:

Greatest before onset of rash and usually noninfectious by the time of rash onset, and/or joint symptoms. Persons with aplastic crisis remain infectious for about a week after onset of symptoms. Persons with immune impairment may remain infectious for a prolonged period.

Clinical Disease

Incubation period:

Usually 4-14 days, but can be up to 21 days.

Illness:

Illness in children is usually mild with a prodrome consisting of low grade or no fever, mild constitutional, respiratory or gastrointestinal signs/symptoms. Slightly raised confluent erythema of the cheeks produces a “slapped cheek” appearance. A faint pink maculopapular rash on the trunk and extremities has a variable, lacy or reticular appearance. This rash may come and go for days to weeks; it tends to appear when the child is hot from sunlight or a bath. Adults may not have a rash, but about 50% have arthralgias or inflammatory arthritis that may last for a few days or persist weeks or months to years. Up to 20% of infected persons have no symptoms.

Hepatitis and myocarditis have been reported in association with parvovirus B19 infection. Persons with chronic hemolytic anemia such as sickle-cell disease may have a transient aplastic crisis as a result of parvovirus B19 infection. Persons with impairment of immune function (such as HIV infection) may develop persistent parvovirus B19 infection with chronic anemia or leukopenia. Transplacental infection of the fetus occurs in about 10% of cases of maternal infection during the first half of pregnancy; fetal demise or stillbirth is associated with fetal hydrops (anemia leading to heart failure). An increased risk of congenital anomalies is not reported.

Laboratory Diagnosis

- In immunocompromised patients, direct detection of parvovirus B19 antigen or deoxyribonucleic acid (DNA) (e.g., polymerase chain reaction (PCR)) in serum or other clinical specimens.
- In immunocompetent patients, detection of parvovirus B19-specific IgM antibody in serum (positive in 90% or more of patients at time of acute illness).

Treatment

- Supportive care for most patients.
- Transfusion may be required for patients with aplastic crisis.
- Chronic infection in immunodeficient patients has been treated with intravenous immunoglobulin.
- Concurrent infection with hydrops fetalis has been treated with intrauterine blood transfusions.

Control Measures

- Children with a rash from fifth disease may attend child care or school since they are not infectious at the time of rash development.
- Transmission of parvovirus B19 is likely reduced through standard cleaning and adherence to recommended hand hygiene practices in childcare settings.
- Pregnant staff should be informed of the potential risks to the fetus of parvovirus B19 infection and about preventive measures to reduce those risks (e.g., adherence to infection control procedures;
- Pregnant women in contact with cases may wish to evaluate their parvovirus B19 immune status.
- The childcare center should identify attendees and staff at increased risk of complications of infection, including persons with chronic hemolytic anemia (most commonly sickle-cell disease) or impaired immune function. These individuals should see a health care provider if they develop signs/symptoms.

See Fifth Disease Fact Sheets (English) (Spanish).

Hand, Foot, and Mouth Disease

Agent

Hand, foot, and mouth disease (HFMD) is caused by viruses that belong to the Enterovirus genus (group). This group of viruses includes polioviruses, coxsackieviruses, echoviruses, and enteroviruses. Coxsackievirus A16 is the most common cause of hand, foot, and mouth disease in the US, but other coxsackieviruses have been associated with the illness. Enterovirus 71 has also been associated with hand, foot, and mouth disease particularly during outbreaks of HFMD.

Transmission

Reservoir:

Humans.

Mode of Transmission:

Most commonly via direct contact with nose and throat secretions and feces of infected persons or through contact with contaminated objects or surfaces.

Less frequently, transmission can occur after swallowing contaminated recreational water sources, like swimming pools. There can also be transmission during the prenatal and peripartum periods.

Period of Communicability:

Respiratory tract viral shedding usually is limited to 1 to 3 weeks or less. Fecal shedding can last for several weeks or months after onset of infection.

Clinical Disease

Incubation period:

Usually 3 to 6 days.

Illness:

Exanthem consisting of diffuse oral papulovesicular or ulcerative lesions. An exanthem consisting of papulovesicular lesions also may be present on the palms and soles, and other areas of the skin.

Laboratory Diagnosis

Diagnosis is usually clinical. Coxsackievirus can be isolated in viral cultures and polymerase chain reaction (PCR) are available to detect enteroviruses.

Treatment

Supportive.

Control Measures

- Wash hands often with soap and water, especially after changing diapers and using the toilet.

- Clean and disinfect frequently touched surfaces and soiled items, including toys.
- Avoid close contact such as kissing, hugging, or sharing eating utensils or cups with people with hand, foot, and mouth disease. Children with hand, foot, and mouth syndrome do not need to be excluded from childcare unless they are unable to control their oral secretions.

See Hand, Foot, and Mouth Disease Fact Sheets (English) (Spanish).

Respiratory Infections

- Conjunctivitis
- Acute viral upper respiratory tract disease
- Noninvasive Group A Streptococcal infection (e.g. 'strep throat' (pharyngitis), scarlet fever)
- Viral meningitis

Conjunctivitis

Agent

- Viral – most common; caused by several different viruses, including adenovirus and enterovirus. Conjunctivitis caused by viral agents usually occurs in outbreaks.
- Bacterial – Numerous, including: *Haemophilus influenzae* (non-type b); *Streptococcus pneumoniae*; *Staphylococcal aureus*; *Moraxella catarrhalis*; *Neisseria meningitidis*. In newborn infants: *Chlamydia trachomatis* and *Neisseria gonorrhoeae* are important pathogens.

Transmission

Reservoir:

Humans.

Mode of Transmission:

Direct or indirect contact with the eye secretions of an infected person, or contaminated surfaces or inanimate objects. With viral conjunctivitis, person to person transmission is most noticeable in families, where high attack rates often occur.

Period of Communicability:

Bacterial – During the course of the active infection. Viral – for adenovirus from late in the incubation period to 14 days after onset; for enterovirus at least four days after onset.

Clinical Disease

Incubation Period:

Bacterial – 24-72 hours. Viral – for adenovirus infection, 2-14 days with an average of 8 days; for enterovirus infection, 24-72 hours.

Illness:

Bacterial - excessive tearing, irritation, blood-shot eyes followed by edema of lids and mucopurulent discharge; blurring of vision or photophobia may occur. Viral – sudden onset of redness, swelling, and pain often in both eyes; inflammation of conjunctivae; edema of the lids and periorbital tissue.

Laboratory Diagnosis

Often made clinically, but culture of eye drainage can be performed.

Treatment

Bacterial:

Local application of an antimicrobial ointment or drops. Oral antimicrobial agents are also effective.

Viral:

Conjunctivitis attributable to adenoviruses or enteroviruses is self-limited and requires no specific antiviral therapy. Supportive treatment only.

Control Measures

- Personal hygiene and good hand washing should be emphasized.
- Discourage sharing of personal items like towels, eye or sun glasses or eye make-up.
- Ensure proper disposal of tissues containing eye or nasal drainage.
- Prompt evaluation and treatment of family members of infected person is recommended.
- Proper disinfection of all medical and eye examining equipment is recommended.
- Ensure prompt hand washing before and after eye treatment, administering eye drops or cleansing.
- Exclusion - For schools—except when viral or bacterial conjunctivitis is accompanied by systemic signs of illness, infected children should be allowed to remain in school once any indicated therapy is implemented, unless their behavior is such that close contact with other students cannot be avoided. For child care—conjunctivitis without fever and without behavioral change does not necessitate exclusion. If two or more children in a group care setting develop conjunctivitis in the same time period, seek advice from the program's health consultant or public health authority.

See Conjunctivitis Fact Sheets (English) (Spanish).

Acute Viral Upper Respiratory Tract Disease

Agents

Many viruses, including rhinoviruses, coronaviruses, parainfluenza viruses, respiratory syncytial virus (RSV), influenza, adenoviruses, and enteroviruses.

Transmission

Reservoir:

Humans.

Mode of Transmission:

Direct oral contact, by droplet, or by inhalation of airborne droplets; indirectly by hands and contact with articles freshly soiled by discharges of nose and throat of infected person. Contaminated hands carrying virus to the mucous membranes of the eye and nose transmit rhinovirus, RSV, and other similar viruses.

Period of Communicability:

Varies by agent; generally most infectious just prior to and during active disease, but shedding of some agents can continue for three weeks.

Clinical Disease

Incubation Period:

Varies by agent; generally several days.

Illness:

An acute infection of the upper respiratory tract characterized by nasal discharge, sneezing, lacrimation, irritated nasopharynx, sore throat, and malaise lasting 2-7 days. Includes conditions such as the common cold, pharyngitis, laryngitis, croup, influenza. Some agents (particularly RSV and influenza) can cause lower airway disease, such as pneumonia and bronchiolitis.

Laboratory Diagnosis

Reverse transcriptase-polymerase chain reaction (RT-PCR) testing, viral cultures or various antigen tests can be used for diagnostic purposes. Nasopharyngeal swabs or washings are used for diagnostic testing.

Treatment

Potential treatment depends on etiology. For the milder forms of viral respiratory illness, supportive treatment is recommended, which may include an antipyretic, an antihistamine, an antitussive, or an analgesic. For more severe illness, it is important for children to be evaluated by their medical provider. There are specific therapies for certain upper respiratory infections, such as influenza. Indiscriminate use of antibiotics for these viral illnesses is discouraged.

Control Measures

- Hand washing is the most effective method of prevention of transmission of respiratory viruses. Proper cleaning of inanimate objects contaminated with oral or nasal discharges is important. The use of disinfectant sprays in the environment is of no proven benefit.
- Acutely ill children should not attend childcare; however, exclusion is not recommended for prevention of transmission of these infections as transmission may occur prior to onset of signs and symptoms, and most illnesses are mild and self-limited. A child may be excluded if they appear ill, if illness prevents participation in activities (as determined by childcare staff), or if the level of care required exceeds the capacity of the childcare facility.

See Acute Viral URI Fact Sheets (English) (Spanish).

Noninvasive Group A Streptococcal Infections

Agent

Streptococcus pyogenes (group A Streptococcus).

Transmission

Reservoir:

Humans.

Mode of Transmission:

Contact with respiratory tract secretions of infected persons. Inanimate objects do not play a significant part in the transmission of the disease.

Period of Communicability:

In untreated persons, up to several weeks or months. With adequate antibiotic therapy, communicability terminates after 24 hours.

Clinical Disease

Incubation period:

Usually 2-5 days.

Illness:

Acute onset of fever, sore throat, exudative tonsillitis, tender cervical lymph nodes ("strep throat"), and possibly a diffuse erythematous sandpaper-like rash ("scarlet fever").

Laboratory Diagnosis

Throat culture or rapid GAS antigen assay from throat swab.

Treatment

Penicillin is the drug of choice in patients who are not allergic to penicillin, but a variety of other antimicrobial agents are also effective. Symptoms usually resolve within 24-48 hours after the start of treatment. Treatment decisions should be made by the patient's health care provider.

Control Measures

- The most important means of reducing spread of noninvasive GAS disease is prompt identification and treatment of infections. Hand washing is recommended after contact with infected persons.
- Exclusion - Children with streptococcal pharyngitis or scarlet fever should be excluded from childcare until well appearing and at least 12 hours after beginning appropriate antibiotic therapy.
- Contacts of patients with GAS infections, who have recent or current clinical evidence of GAS infection, should be tested and treated if tests are positive.

See Noninvasive GAS Fact Sheets (English) (Spanish).

Viral Meningitis

Agents

Viral – Numerous, including enteroviruses, arboviruses, herpes simplex, and varicella viruses.

Transmission

Reservoir:

Humans

Mode of Transmission:

For both viral and bacterial meningitis, direct contact with infected secretions from throat or nose. For enteroviruses, it is primarily transmitted through the oral-fecal route and close personal contact.

Period of Communicability:

Viral - many of the viruses have different periods of communicability, but generally persons are most infectious during the acute stage of the illness.

Clinical Disease

Incubation period:

Varies depending on agent. Usually 7-10 days.

Illness:

For infants - unusual irritability, excessive crying with an inability to be comforted and high-pitched cry. In children and adults, the severity of signs and symptoms may vary, but sign/symptom complex can include: abrupt onset of fever, chills, intense headache, nausea and vomiting, stiff neck, back pain, malaise, drowsiness, altered consciousness, prostration, and possibly rash. Convulsions may also occur.

Laboratory

Viral – virus may be isolated in culture during early stages from throat washings and stool, and occasionally from cerebral spinal fluid (CSF).

Treatment

Viral - supportive therapy under most circumstances.

Control Measures

- Hand washing is the most important action to prevent transmission of infectious agents.
- Children with suspected meningitis represent a medical emergency and should be **immediately** evaluated by a health care provider and excluded from child care until the cause of the meningitis is identified. Additional intervention depends on the etiology of the disease.
- Viral - Standard precautions are recommended when in contact with stool, nasal, and throat secretions.

References

American Academy of Pediatrics. In: Kimberlin DW, Barnett ED, Lynfield R, Sawyer MD, eds. Red Book: 2021 Report of the Committee on Infectious Diseases. 32nd ed. Itasca, IL: American Academy of Pediatrics; 2021.

Heymann, DL, Ed. Control of Communicable Diseases Manual. 21st edition. Washington, DC: American Public Health Association; 2022.

See Viral Meningitis Fact Sheets (English) (Spanish).

Child Care Center and K-12 School Exclusion List

The following list outlines exclusion for children attending day care centers who develop specific infectious diseases.

INFECTION	EXCLUDE?	DURATION OF EXCLUSION
AIDS/HIV	NO*	
Campylobacter	YES	Until stools are contained in the diaper or when toilet-trained children no longer have accidents using the toilet and when stool frequency becomes no more than 2 stools above that child's normal frequency for the time the child is in the program, even if the stools remain loose.
Chickenpox/varicella	YES	Until all sores are dried and crusted or in immunized people without crusts, until no new lesions appear within a 24-hour period.
Conjunctivitis (pink eye) with white or yellow discharge without fever and without behavioral change	NO	
Cryptosporidium	YES	Until stools are contained in the diaper or when toilet-trained children no longer have accidents using the toilet and when stool frequency becomes no more than 2 stools above that child's normal frequency for the time the child is in the program, even if stools remain loose. Do not participate in recreational water activities, such as swimming, while having diarrhea and for 2 weeks after symptoms have completely resolved.
Diarrhea – uncontrolled	YES	Until stools are contained in the diaper or when toilet-trained children no longer have accidents using the toilet and when stool frequency becomes no more than 2 stools above that child's normal

		frequency for the time the child is in the program, even if stools remain loose.
E. coli 0157 (or other STEC)	YES	Until 2 negative stool cultures (obtained at least 48 hours after any antimicrobial therapy, if administered, has been discontinued) are negative, and stools are contained in the diaper or child is continent, and stool frequency is no more than 2 stools above that child's normal frequency. Report to and consult with local or state public health officials. Some state health departments have less stringent exclusion policies for children who have recovered from less virulent STEC infection.
Giardia	YES	Until stools are contained in the diaper or when toilet-trained children no longer have accidents using the toilet and when stool frequency becomes no more than 2 stools above that child's normal frequency for the time the child is in the program, even if stools remain loose and NMDOH agrees with the return to childcare. People with diarrhea should not use recreational water venues (e.g., swimming pools, water slides) while symptomatic. who had diarrhea attributable to Giardia should avoid recreational water activities and shared bathing for 1 additional week after cessation of symptoms.
Head Lice	NO**	Treatment at end of program day and readmission on completion of first treatment. Children should not be excluded or sent home early from school because of head lice, because head lice have a low contagion within classrooms.
Hepatitis A	YES	Until one week after onset of illness
Hepatitis B and C	NO*	

Herpes – multiple mouth sores with drooling	YES	Until fever is gone and no drooling
Herpes – single fever blisters	NO*	
Impetigo	NO	If treatment has been initiated and as long as lesions on exposed skin are covered.
Mumps	YES	Until 5 days after onset of parotid gland swelling
Pertussis	YES	Until 5 days of appropriate antibiotic therapy has been completed; children and providers who refuse treatment should be excluded until 21 days have elapsed from cough onset.
Rash Illness with fever	YES	Until provider determines not contagious
Ringworm (scalp & body)	NO***	Exclusion and treatment can occur at the end of the day with return the following day.
Rubeola (measles)	YES	Until 4 days from appearance of rash and when child is able to participate.
Rubella	YES	Until 7 days after onset of rash for postnatal infection.
Salmonella - serotypes Typhi or Paratyphi	YES	Until 3 consecutive stool cultures obtained at least 48 hours after cessation of antimicrobial therapy are negative, stools are contained in the diaper or child is continent, and stool frequency is no more than 2 stools above that child's normal frequency for the time the child is in the program.
Nontyphoidal *Salmonella* species, *Salmonella* species unknown	YES	Until stools are contained in the diaper or child is continent and stool frequency is no more than 2 stools above that child's normal frequency for the time the child is in the program. Stool consistency does not need to return to normal to be able to return to childcare. Negative stool culture results generally

		not required for nonserotype Typhi or Paratyphi *Salmonella* species.
Scabies	NO	Treatment at end of program day and readmission on completion of first treatment. Children should not be excluded or sent home early from school because of scabies, because scabies has a low contagion within classrooms.
Shigella	YES	Until State or local health department has deemed it safe to return to work per state or local childcare exclusion regulations. Following this, children can return to childcare facilities if stools are contained in the diaper or when toilet-trained children are continent and when stool frequency becomes no more than 2 stools above that child's normal baseline for the time the child is in the program, even if the stools remain loose.
Shingles	YES, if lesions cannot be completely covered	Until all lesions have dried and crusted
Staphylococcus skin lesions	NO****	
Streptococcal Pharyngitis (Strep throat)	YES	Until at least 12 hours after treatment has been initiated.
Oral temperature of 101 degrees Fahrenheit or greater or armpit temperature is 100.4 degrees Fahrenheit or greater and the child shows signs of illness or behavior changes	YES	Until after provider evaluation and fever subsides
Vomiting (>= 2 times in 24 hours)	YES	Until symptoms have resolved, unless vomiting is determined to be caused by a noncommunicable condition a child is able to remain hydrated and participate in activities.

*Unless child shows aggressive behaviors like biting, or scratching, or has draining skin lesions, or bleeding problems.

**Chemical treatment of the hair is nonetheless highly recommended.

***If using topical treatment and lesions covered.

****Exclude, if skin lesions draining and cannot be covered with watertight dressing.

References

American Academy of Pediatrics. In: Kimberlin DW, Barnett ED, Lynfield R, Sawyer MD, eds. Red Book: 2021 Report of the Committee on Infectious Diseases. 32nd ed. Itasca, IL: American Academy of Pediatrics; 2021.

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