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Guidance

# Chapter 9: managing specific infectious diseases

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# **Athlete's Foot**

Athlete's foot is a skin infection caused by a fungus which can also cause ringworm.

## **Symptoms**

The person will have scaling or cracking of the skin, especially between the toes, or blisters containing fluid; it can be very itchy.

## **Spread**

It is generally spread by prolonged direct or indirect contact with skin lesions on infected people or contaminated floors, shower stalls and other articles used by infected people.

## **Exclusion**

No exclusion is necessary.

## **Do's**

Advise the case to visit their GP for advice and treatment.

Take care to dry between the toes after bathing. Use a fungicidal dusting powder on the feet, between the toes and in the socks and shoes.

Wear shoes that allow feet to breathe and change frequently.

Cover the affected foot with a rubber sock when going swimming.

## **Don'ts**

Do not share towels, bath mats or footwear when infected.

# **Chicken pox (shingles)**

Chickenpox is highly infectious and is spread by respiratory secretions or by direct contact with fluid from blisters. Shingles is spread by direct contact with fluid from blisters. It cannot produce shingles in another person but the virus can spread to those who never had chickenpox from fluid in the blisters of a case.

## **Symptoms**

Chickenpox has a sudden onset with fever, runny nose, cough and a generalised rash. The rash starts with blisters which then scab over. Several 'crops' of blisters occur so that at any one time there will be scabs in various stages of development.

The rash tends to be more noticeable on the trunk than on exposed parts of the body and may also appear inside the mouth and on the scalp. Some infections can be mild or without symptoms.

Shingles presents as a blistering rash in the area supplied by the affected nerve. Usually only one side of the body is affected and there is severe pain in the affected area. Most people recover fully without developing serious complications. There is often altered sensation before the rash appears, accompanied by 'flu like' symptoms.

## **Spread**

Chickenpox is highly infectious and is spread by respiratory secretions or by direct contact with fluid from blisters.

Shingles is spread by direct contact with fluid from blisters. It cannot produce shingles in another person but the virus can spread to those who never had chickenpox from fluid in the blisters of a case.

## **Exclusion**

Cases of chickenpox are generally infectious from 2 days before the rash appears to 5 days after the onset of rash.

Although the usual exclusion period is 5 days, all lesions should be crusted over before children return to nursery or school.

A person with shingles is infectious to those who have not had chickenpox and should be excluded from school if the rash is weeping and cannot be covered or until the rash is dry and crusted over.

## **Do's**

Send the child home and advise parents to consult their GP.

In cases of shingles, decision to exclude child will vary for each case of shingles and will be dependent on whether the rash is weeping and whether the rash can be covered.

## **Don'ts**

Don't allow the child back to school until at least 5 days after the appearance of the chickenpox rash (blisters) and all the lesions have crusted over.

## **Cold sores**

Cold sores are caused by a virus called herpes simplex and usually appear on lips and around nostrils but can spread more widely over the face. It is estimated that 50 to 90% of the population are carriers of the virus but they do not all suffer from cold sores.

It is usually a mild self-limiting disease. Most people who already suffer from cold sores will have been infected very early in life.

## **Symptoms**

First signs are tingling, burning or itching in the area where it is going to appear. This phase may last for as little as 24 hours. There is reddening and swelling of the infected area resulting in a fluid filled blister, or sometimes a group of them, which can be very painful and uncomfortable. They break down to form

ulcers, which weep and crack. They then dry up and crust over.

The virus can be reactivated by various trigger factors such as stress or sunlight.

## **Spread**

The virus is spread by direct contact.

## **Exclusion**

None needed.

## **Do's**

Advise the case (and their carers) to avoid spread by not touching the cold sore or breaking or picking the blisters.

Avoid kissing people, especially children when they have a blister and not to share things like cups, towels and facecloths.

## **Don'ts**

Cases should not touch their eyes and adults should take extra care when applying or removing make-up.

## **Conjunctivitis**

Conjunctivitis is an inflammation of the outer lining of the eye and eyelid causing an itchy red eye with a sticky or watery discharge. It can be caused by bacteria or viruses or due to an allergy.

Conjunctivitis can be caused by a bacteria or a virus and is treated with eye drops. Spread is by direct or indirect contact with discharge from the eyes. Prompt treatment and good hand washing helps to prevent spread especially after contact with infectious secretions.

## **Symptoms**

The eye(s) becomes reddened and swollen and there may be a sticky yellow or green discharge. Eyes usually feel itchy and 'gritty'. Topical ointment can be obtained from the doctor or pharmacy to treat the infection.

## **Spread**

Conjunctivitis can be spread by contact with discharge from the eye which gets onto the hands or towel when the child rubs their eyes.

## **Exclusion**

None needed.

## **Do's**

Advise parents to seek advice.

Encourage children not to rub their eyes and to wash their hand frequently.

Contact your local Health Protection Team if an outbreak or cluster occurs.

## **Food poisoning**

Food poisoning is a general term for gastrointestinal infections caused by consuming contaminated food or drink. Person to person spread of these infections is unusual.

### **Symptoms**

Symptoms of food poisoning usually begin within 1 to 2 days of eating contaminated food, although they may start at any point between a few hours and several weeks later. The main symptoms include feeling sick (nausea), vomiting, diarrhoea, stomach cramps and fever.

### **Spread**

Infection can be caused by a variety of bacteria, viruses or parasites; most commonly reported are Salmonella and Campylobacter. They can cause sudden large outbreaks of diarrhoea if a large number of people eat the same contaminated food.

### **Exclusion**

Children and adults with diarrhoea should be excluded until 48 hours after the diarrhoea and vomiting has stopped and they are well enough to return.

For some infections, longer periods of exclusion from school are required and there may be a need to obtain microbiological clearance. For these groups your local Health Protection Team will advise. All outbreaks of food poisoning need to be investigated in order to identify their cause.

### **Do's**

Exclude the pupil or staff member until 48 hours after the symptoms have stopped.

Inform your local Health Protection Team (<https://www.gov.uk/health-protection-team>) if 2 or more cases with similar symptoms are reported to you.

## **Giardia**

This parasitic disease is spread from those with the infection to others by the faecal-oral route. It may also be spread by drinking water contaminated with faeces. Infection with giardia may not cause any symptoms. The incubation period is between 5 and 25 days.

When symptoms do occur, they may include abdominal pain, bloating, fatigue and pale, loose stools. Cases need to be treated with antibiotics.

### **Exclusion**

Cases should be excluded until 48 hours after symptoms have stopped.

### **Do's**

Exclude the pupil or staff member until 48 hours after the symptoms have stopped.

Inform your local Health Protection Team if 2 or more cases with similar symptoms are reported to you.

## **Salmonella**

Salmonella is caused by eating contaminated food, particularly poultry or eggs. It can also be spread directly from person to person by the faecal-oral route. Symptoms include diarrhoea, headache, fever and sometimes vomiting. Infection can be more serious in the very young and very old. The incubation period can be from as little as 6 hours up to 72 hours (most commonly 12 to 36 hours).

### **Exclusion**

Cases should be excluded until 48 hours after symptoms have stopped.

### **Do's**

Exclude the pupil or staff member until 48 hours after the symptoms have stopped.

Inform your local Health Protection Team if 2 or more cases with similar symptoms are reported to you.

## **Typhoid and Paratyphoid fever**

These are less common but serious illnesses. They are spread by consuming food or water contaminated by the faeces or urine of someone with the illness or someone without symptoms who may be excreting the organism. These infections are most commonly acquired abroad.

Symptoms of typhoid fever are tiredness, fever and constipation, whereas those of paratyphoid fever are fever, diarrhoea and vomiting. The severity of the illness and length of the incubation period (typhoid 1 to 3 weeks, paratyphoid 1 to 10 days), are related to the number of infecting organisms ingested.

### **Exclusion**

Environmental health officers or your local Health Protection Team will advise.

### **Do's**

Encourage staff and children to always practice good personal hygiene.

Encourage staff and children to wash their hands especially after using the toilet and before eating or preparing food. Young children may need supervision to ensure that adequate hand washing takes place

Always ensure high standards of environmental cleaning (especially frequently touched areas, like flush handles, toilet seats, taps, toilet door handles). Please refer to the infection control section on cleaning.

Use liquid soap and disposable paper towels for hand washing.



Report immediately to the Health Protection Team (HPT).

Observe exclusion period – whilst symptomatic and for 48 hours after symptoms have resolved, or longer if advised by the HPT or Environmental Health Officer (EHO).

Consider sending out the travel health advice information prior to the main travel periods to raise awareness of the need for pre-travel health advice and vaccinations.

## **E. coli (verocytotoxigenic or VTEC)**

Escherichia coli (E. coli) are bacteria that live in the gut of humans and animals, particularly cattle and sheep. A few strains of E. coli, such as VTEC can produce toxins that lead to more serious and potentially fatal illness.

Spread is by eating contaminated food, direct contact with animals and by faecal-oral route from an infected person as a result of sharing towels and food. Spread by contaminated drinking has also been reported.

### **Symptoms**

Symptoms vary depending on the severity of the infection but include diarrhoea, abdominal cramps, headache and bloody diarrhoea. The incubation period is 1 to 10 days and cases are infectious as long as bacteria are present in the faeces.

### **Spread**

Spread is mainly by contaminated water and food and contact with animals. Person to person spread is by direct contact and can happen within families and child care settings. Outbreaks and sporadic cases have also been linked with handling animals. Therefore, adults should supervise children while washing their hands during visits to petting zoos and farm centres. Read chapter 8: pet and animal contact (<https://www.gov.uk/government/publications/health-protection-in-schools-and-other-childcare-facilities>).

### **Exclusion**

The standard exclusion period is until 48 hours after symptoms have resolved. However, some people pose a greater risk to others and may be excluded until they have a negative stool sample(s) for example pre-school infants, food handlers, and care staff working with vulnerable people. The HPT will advise in these instances.

### **Do's**

Follow healthcare professional's exclusion advice.

Promote good hand washing to children visiting to farms or petting zoos, especially after handling animals and prior to eating or drinking (see chapter 8: pet and animal contact).

## **Diarrhoea and vomiting (Gastroenteritis)**

Diarrhoea has numerous causes but diarrhoea caused by an infection in the gut can be easily passed to others.

## **Symptoms**

Diarrhoea is defined as 3 or more liquid or semi-liquid stools in a 24 hour period.

## **Spread**

These infections are spread when organisms enter the gut by the mouth or when contaminated hands or objects are put in the mouth or after eating contaminated food or drinks. Also, infection can be spread to contacts when the affected person vomits. This is because aerosols can spread the organism directly to others and contaminate the environment. A person will be infectious while symptoms remain.

## **Exclusion**

Children and adults with diarrhoea or vomiting should be excluded until 48 hours after symptoms have stopped and they are well enough to return. If medication is prescribed, ensure that the full course is completed and there is no further diarrhoea or vomiting for 48 hours after the course is completed.

For some gastrointestinal infections, longer periods of exclusion from school are required and there may be a need to obtain microbiological clearance. For these groups, your local HPT, school health advisor or environmental health officer will advise.

If a child has been diagnosed with cryptosporidium, they should NOT go swimming for two weeks following the last episode of diarrhoea.

## **Do's**

Ensure the case is excluded.

Do encourage staff and children to practice good hand hygiene at all times.

Notify your local Health Protection Team if there are more cases than normally expected.

## **Bacillary Dysentery (Shigella)**

This disease is passed directly from person to person by the faecal-oral route or by contaminated food. It is usually spread from those with diarrhoea but can be spread from those recovering from the illness even if they do not have symptoms.

## **Symptoms**

Symptoms can include bloody diarrhoea, vomiting, abdominal pain and fever lasting on average from 4-7 days but can last for several weeks. The incubation period is 12 to 96 hours.

## **Exclusion**

Microbiological clearance is required for some types of shigella species prior to the child or food handler returning to school (age of child and infectious agent).

# **Campylobacter**

It is spread between people and animals by the faecal-oral route. Bacteria are present in the faeces of adults and children with diarrhoea, and spread to the mouths of other people directly on their hands or by food or objects. Campylobacter can be present in raw meat, especially chicken, and can contaminate other foods, surfaces and utensils. The disease usually lasts 3 to 5 days and has an incubation period of between 1 and 10 days but most commonly 3 to 5 days.

## **Exclusion**

Cases should be excluded until 48 hours after symptoms have stopped.

# **Cryptosporidiosis**

Cryptosporidiosis is spread from those with the infection to others by the faecal-oral route. It can also be spread by direct contact with farm animals particularly cattle and sheep. Spread by contaminated or untreated water and milk has also been reported. Symptoms include abdominal pain, diarrhoea and occasionally vomiting. The incubation period is between 1 and 12 days.

## **Exclusion**

Cases should be excluded until 48 hours after symptoms have stopped.

# **Glandular fever**

Glandular fever is caused by the Epstein-Barr virus.

## **Symptoms**

Symptoms present as severe tiredness, aching muscles and sore throat, fever, swollen glands and occasionally jaundice (yellowing of the skin and eyes). In children, the disease is generally mild and difficult to recognise. The incubation period is 4 to 6 weeks but the infectious period is not accurately known.

Duration of the illness is from 1 to several weeks or months.

## **Spread**

Spread is by direct contact with saliva and by indirect contact with hands or contaminated objects from cases. The incubation period is between 4 to 6 weeks.

## **Exclusion**

Exclusion is not required and children can return once they feel well.

## **Do's**

Promote hand hygiene to reduce the risk of spread and ensure that used tissues are disposed of or washed straight away.

Remember the child may feel unwell for some months.

## **Don'ts**

There is no specific treatment only symptom management.

## **Hand, foot and mouth disease**

Hand, foot and mouth disease is a common viral illness in childhood. It is generally a mild illness caused by an enterovirus. In very rare instances it can be more severe.

## **Symptoms**

The child usually develops a fever, reduced appetite and generally feeling unwell. One or two days after these symptoms a rash will develop with blisters on their cheeks, hands and feet. Not all cases have symptoms. The incubation period is 3 to 5 days.

## **Spread**

Hand foot and mouth infection is most contagious in the first 7 days but the virus can stay in the body for a few weeks. Spread is by direct contact with the secretions of the infected person (including faeces) and by coughing and sneezing. Younger children are more at risk because they tend to play closely with peers. Promote good hand washing to reduce the risk of transmission even after the child is well because the virus can still be present in the faeces and saliva (spit) for a few weeks.

## **Exclusion**

Children are safe to return to school or nursery as soon as they are feeling better, there is no need to stay off until the blisters have all healed. Keeping your child off for longer periods is unlikely to stop the illness spreading. Exclusion of a well pupil is not required.

## **Do's**

Do ensure that any tissues used to for nose and throat are disposed of or washed immediately. Promote hand washing.

## **Don'ts**

Don't confuse with foot and mouth disease in animals.

## **Head lice**

Head lice are tiny insects that live only on humans, feeding on blood. Eggs are grey or brown and about the size of a pinhead; are glued to the hair, close to the scalp and hatch in 7 to 10 days. Empty egg shells (nits) are white and shiny and are found further along the hair shaft as they grow out.

## **Spread**

Head lice are spread by direct head-to-head contact and therefore tend to be more common in children because of the way they play. They cannot jump, fly or swim. When newly infected, cases have no symptoms. Itching and scratching on the scalp occurs 2 to 3 weeks after infection. There is no incubation period.

Treatment is only needed if live lice are seen. Dimeticone, a silicone oil (like Hedrin) or malathion, an insecticide are recommended treatments. Alternatively, lice can be physically removed by combing through hair that has been lubricated with a conditioner using a fine-toothed detector comb.

### **Exclusion**

No exclusion is needed.

### **Do's**

Treatment is needed only when live lice are seen.

### **Don'ts**

Exclusion is not required.

## **Hepatitis A**

Hepatitis A is a viral infection affecting the liver. The severity of the disease varies from a mild illness lasting 1 to 2 weeks to a severely disabling disease lasting several months. Children under 5 years may not have any symptoms.

### **Symptoms**

Symptoms include abdominal pain, loss of appetite, nausea, fever and tiredness, followed by jaundice (yellowing of the skin and eyes), dark urine and pale faeces. Symptoms are usually much milder or not noticed in younger children and jaundice is not common in children under 5 years.

The illness in children usually lasts 1 to 2 weeks but be longer and more severe in adults.

### **Spread**

Hepatitis A is spread from person to person through the faecal-oral route, most commonly when food and hands are contaminated. As some children may not have symptoms at all, they may readily spread the infection to others unless good personal hygiene measures are routinely taken.

### **Exclusion**

Exclude cases from school while unwell or until 7 days after the onset of jaundice (or onset of symptoms if no jaundice or if under 5 or where hygiene is poor. There is no need to exclude well, older children with good hygiene who will have been much more infectious prior to diagnosis.

### **Do's**

Promote good hand washing to reduce the risk of spread.

Take care to wash hand before handling food and after going to the toilet.

Clean kitchen and toilet areas regularly.

Household contacts of cases will be offered a hepatitis A vaccine if they are not immune.

## **Hepatitis B**

Hepatitis B infection is not a common viral infection in young children.

### **Symptoms**

The incubation period varies between 4 to 160 days. Symptoms can vary and include general tiredness, nausea and vomiting, loss of appetite, fever, dark urine and older children and adults may develop jaundice (a yellowing of the eyes and skin).

### **Spread**

Spread is by contact with infected blood and body fluids entering the bloodstream through broken skin or the mucous membranes, for example through a bite which breaks the skin or if the skin is pierced by an object which has been in contact with someone else's body fluids.

All blood and body fluids should be considered potentially infectious and spills should be cleared wearing protective clothing and using a spills kit.

### **Exclusion**

Acute cases of hepatitis B will be too ill to attend school and their doctors will advise when they can return. Do not exclude chronic cases of hepatitis B or restrict their activities. Similarly, do not exclude staff with chronic hepatitis B infection. Contact your local health protection team for more advice if required.

### **Do's**

Take a standard approach to cleaning all spillages of blood and body fluids.

Always complete the accident book with details of injuries or adverse events.

### **Don'ts**

Individuals with chronic hepatitis B infection should not be excluded or have their activities restricted.

## **Hepatitis C**

Hepatitis C is not a common infection in children.

### **Symptoms**

Hepatitis C virus (HCV) is a blood borne virus affecting the liver. Symptoms of hepatitis C infection can often be vague and include loss of appetite, fatigue, nausea and abdominal pain. Jaundice (yellowing of the skin and eyes) occurs less commonly than in hepatitis B infection. Up to 80% of those infected may be carriers of the virus and can pass it on to others.

## **Spread**

HCV is present in blood and other body fluids and tissues and is spread in the same way as hepatitis B virus. Hepatitis C, like Hepatitis B, cannot be spread through casual contact.

## **Exclusion**

No exclusion is needed

## **Do's**

Take a standard approach to cleaning all spillages of blood and body fluids.

Always complete the accident book with details of injuries or adverse events.

## **Don'ts**

Individuals with chronic hepatitis C infection should not be excluded or have their activities restricted.

## **Impetigo**

Impetigo is an infectious bacterial skin disease and may be a primary infection or a complication of an existing skin condition such as eczema, scabies or insect bites. Impetigo is common in children, particularly during warm weather.

## **Symptoms**

The infection can develop anywhere on the body but lesions tend to occur on the face, flexures and limbs not covered by clothing.

## **Spread**

Spread is by direct contact with discharges from the scabs of an infected person. The bacteria invade skin through minor abrasions and then spread to other sites by scratching. Infection is spread mainly on hands, but indirect spread via toys, clothing, equipment and the environment may occur. The incubation period is between 4 to 10 days.

## **Exclusion**

The child should be excluded from school until the lesions are crusted and healed or 48 hours after commencing antibiotic treatment.

## **Do's**

Promote hand hygiene to reduce the risk of spread.

Towels and facecloths or eating utensils should not be shared by pupils.

Ensure that toys and play equipment are thoroughly cleaned.

## **Don'ts**

The child should not return to school until lesions are crusted over or 48 hours after starting antibiotic treatment.

## **Influenza**

Influenza, commonly known as flu, is caused by a virus, usually influenza A or B. The illness is very infectious and easily spreads in crowded populations and in enclosed spaces. Flu viruses are always changing so this winter's flu strains will be slightly different from last winter's.

Annual vaccination is recommended for certain groups of people. Currently all children between the ages of 2, 3 or 4 years and children in year groups 1, 2 and 3 are recommended to have vaccination against influenza.

This programme will include more year groups in the future, your school health team will be able to advise you on this Influenza vaccine is also recommended for pregnant women. For further details see national immunisation schedule (<http://www.nhs.uk/conditions/vaccinations/pages/vaccination-schedule-age-checklist.aspx>).

## **Symptoms**

Influenza is a respiratory illness and commonly has a sudden onset. Symptoms include headache, fever, cough, sore throat, aching muscles and joints and tiredness. Cases are infectious 1 day before to 3 to 5 days after symptoms appear.

## **Spread**

By breathing in droplets coughed out into the air by infected people or by the droplets landing on mucous membranes. Transmission may also occur by direct or indirect contact with respiratory secretions for example via soiled tissues, surfaces.

Incubation period is between 1 to 3 days.

## **Exclusion**

There is no precise exclusion period. Adults and children with symptoms of influenza are advised to remain at home until recovered.

## **Do's**

Encourage those in risk groups to have the influenza vaccine.

Encourage children and staff with flu-like symptoms to stay at home until recovered.



Ask children to cover their noses and mouths with a tissue when coughing or sneezing and discard tissues after use.

Ensure regular hand washing with soap and water, especially after coughing or sneezing.

## **Don'ts**

Do not allow children under 16 years old to have aspirin as it is associated with Reye's syndrome (a neurological disorder).

## **Measles**

Measles is a highly infectious viral infection. The mumps, measles-rubella (MMR) immunisation campaign carried out in the UK 1994 resulted in a dramatic reduction in cases of measles. However, there has recently been a sharp rise in the number of cases reported in unvaccinated individuals in London.

## **Symptoms**

Symptoms include a runny nose; cough; conjunctivitis (sticky eye); high fever and small white spots (Koplik spots) inside the cheeks. Around day 3 of the illness, a rash of flat red or brown blotches appear, beginning on the face and spreading over the body. The incubation period is between 7 to 18 days.

## **Spread**

Measles is highly infectious. The virus is transmitted through airborne droplet spread, and direct contact with nasal or throat secretions.

## **Exclusion**

Cases are infectious from 4 days before onset of rash to 4 days after so it is important to ensure cases are excluded from school during this period.

## **Do's**

Encourage all children over the age of 1 to have MMR immunisations as per the national schedule.

Staff should be up to date with their MMR vaccinations.

## **Don'ts**

Children and adults with a weak immune system, pregnant women and children under 12 months who come into contact with measles should contact their GP immediately for advice.

## **Meningitis**

Meningitis is a general term that describes an inflammation of the membranes covering the brain and spinal cord. It can be caused by a range of bacteria or viruses. Bacterial meningitis is less common but more serious than viral meningitis and needs urgent antibiotic treatment. In some cases, bacterial

meningitis can lead to septicaemia (blood poisoning). If you suspect meningitis, get medical help urgently.

## **Symptoms**

Common signs and symptoms of meningitis and septicaemia include fever, severe headache, photophobia, neck stiffness, non-blanching rash (see glass test box below), vomiting, drowsiness.

The incubation period varies with the organism causing the infection. Bacterial meningitis incubation is between 2 and 10 days.

## **Glass test**

If a glass tumbler is pressed firmly against a septicaemic rash, the rash will not fade. You will be able to see the rash through the glass. If this happens get medical help immediately. Note that the rash is a late symptom - if any of the other symptoms have already occurred seek medical advice immediately.

The routine childhood immunisation schedule provides protection against meningitis caused by mumps, polio, Haemophilus influenzae type b (Hib), pneumococcus and Neisseria meningitidis group A,B,C,W and Y. There is no vaccination for some types of meningitis. Pupils should be encouraged to be up to date with their vaccinations.

There is no effective medication the treatment of viral meningitis but symptoms are usually much milder.

## **Exclusion**

Once the child has been treated (if necessary) and has recovered, they can return to school. No exclusion is needed.

Meningitis is a notifiable disease.

## **Meningococcal meningitis and meningitis septicaemia**

Meningitis and septicaemia require immediate medical attention.

The bacteria Neisseria meningitidis is responsible for meningococcal meningitis and meningococcal septicaemia (known collectively as 'meningococcal infection'). There are 13 known groups of the bacteria, the most common worldwide are A, B, C, W135 and Y. In the UK, groups B and C are the most common. Meningococcal infection is a rare but serious disease and is fatal in around 1 in 10 people with the illness. About 15% of those that recover have long-term complications.

## **Symptoms**

Symptoms include fever, severe headache, photophobia, drowsiness, non-blanching rash (see glass test box). Not all the symptoms will be present and cases can have symptoms of meningitis and septicaemia.

## **Glass test:**

If a glass tumbler is pressed firmly against a septicaemic rash, the rash will not fade. You will be able to see the rash through the glass. If this happens get medical help immediately. Note that the rash is a late symptom - if any of the other symptoms have already occurred seek medical advice immediately.

## **Spread**

Spread is from person to person through respiratory droplets and direct contact with nose and throat secretions. About 10% of us carry the bacteria harmlessly in our nose and throat without and only a very small proportion of people develop meningitis or septicaemia if they come into contact with it.

Close and prolonged contact is needed to pass the bacteria to others (such as contacts in a household setting or intimate kissing). For this reason, only people that have had significant close contact with the case in the previous 7 days will be offered antibiotics.

The case is considered non-infectious 24 hours after taking appropriate antibiotic treatment to clear the bacteria from their nose and throat.

If the child has been treated and has recovered, they can return to school. The HPT will have carried out a risk assessment and organised antibiotics for household and other close contacts. Exclusion is not necessary for household or close contacts unless they have symptoms suggestive of meningococcal infection.

## **Do's**

Seek medical advice immediately if meningitis is suspected.

Inform HPT and school health advisor of a case of meningococcal disease in your school.

Respect confidentiality of the patient.

Inform the HPT if 2 cases of meningococcal disease occur in the school within 4 weeks.

## **Meningitis (viral)**

The symptoms of meningitis (inflammation of the linings surrounding the brain) can be caused by a number of different viruses.

## **Symptoms**

Symptoms include headache, fever, gastrointestinal or upper respiratory tract involvement and in some cases a rash. Active illness seldom lasts more than 10 days.

## **Spread**

How the disease is spread will depend on the virus causing the illness. Transmission may be through droplet spread or direct contact with nose and throat discharges or faeces of infected individuals.

## **Exclusion**

No exclusion is required. Once the child is well the risk of infection is minimal. There is no reason to exclude siblings and other close contacts of a case.

## **Do's**

Encourage high standards of basic hygiene.

Encourage the prompt disposal of soiled tissues.

Recommend a consultation with the GP.

Seek advice from Health Protection Team if more than one case occurs.

## **Meticillin resistant Staphylococcus aureus (MRSA)**

MRSA (meticillin resistant Staphylococcus aureus) is a bacteria that has developed resistance to methicillin (a type of penicillin) and some other antibiotics that are used to treat infections.

## **Symptoms**

Staphylococcus aureus is commonly found on the skin and in the nostrils of about 25 to 30% of the population. Most people do not even realise they are carrying it because it does not harm them and they have no symptoms, or only experience minor problems such as skin infections or boils. It can occasionally cause serious infection.

## **Spread**

Spread is mainly by direct contact with contaminated hands and objects.

## **Exclusion**

None advised.

## **Do's**

Staff should ensure good infection control principles are in place, in particular good hand washing, to reduce the risk of transmission.

All infected wounds should be covered.

## **Mumps**

### **Symptoms**

Mumps is a viral infection. The first symptoms of mumps are usually a raised temperature and general malaise. Following this there is stiffness or pain in the jaws or neck. Then the glands in the cheeks and under the jaw swell up and cause pain. The swelling can be one sided or affect both sides. Mumps is usually fairly mild in young children, but can cause swelling of the testicles and rarely, infertility in males over the age of puberty.

## **Spread**

The mumps virus is highly infectious and can be spread by droplets from the nose and throat and by saliva.

## **Exclusion**

Infected children can return to school 5 days after the onset of swelling, if well.

## **Do's**

Encourage staff and children to practice good hygiene at all times.

Send the child home if unwell.

Advise the parents to see their GP.

Encourage parents to have their children immunised against mumps.

## **Ringworm**

### **Symptoms**

Ringworm, also known as tinea, is a fungal infection of the skin, hair or nails. It is caused by various types of fungi and infections are named after the parts of the body that are affected, namely face, groin, foot, hand, scalp, beard area and nail. Scalp ringworm in children is becoming more common in the UK, particularly in urban areas. Until recently this was usually spread from infected animals but now spread between humans within families and in schools is more common.

### **Ringworm of the scalp**

Infection with animal ringworm starts as a small red spot which spreads leaving a scaly bald patch. The hair becomes brittle and breaks easily. The picture with human scalp ringworm varies from lightly flaky areas, often indistinguishable from dandruff, to small patches of hair loss on the scalp. There may be affected areas on the face, neck and trunk.

### **Ringworm of the body**

Infected areas are found on the trunk or legs and have a prominent red margin with a central scaly area.

### **Athlete's foot**

Affects the feet, particularly the toes, in between the toes and soles.

### **Nail ringworm**

Infection of the nails often with infection of the adjacent skin. There is thickening and discolouration of the nail.

## **Spread**

Spread is by direct skin to skin contact with an infected person or animal and with athlete's foot, by indirect contact with contaminated surfaces.

## **Exclusion**

No exclusion needed. Once treatment has started for infections of the skin and scalp children can return to school. Scalp ringworm needs to be treated with oral anti-fungal agents. An anti-fungal cream is used to treat ringworm of the skin and feet.

## **Do's**

Wash and dry feet well in cases of athlete's foot.

Keep towels separate in all cases.

Ensure the child with ringworm of the feet is wearing socks and trainers. The child should have his or her feet covered for physical education.

## **Rotavirus**

### **Symptoms**

Rotavirus infection is the most common cause of gastroenteritis (inflammation of the intestines) in children under 5 years of age worldwide. Rotavirus is a highly infectious virus and can cause severe diarrhoea, stomach cramps, vomiting, dehydration and mild fever. These symptoms usually last from 3 to 8 days.

### **Spread**

Rotavirus is highly contagious and is mainly transmitted by the faecal-oral route, although respiratory transmission may also occur.

Apart from vaccination, good hygiene is the most important way of preventing the spread of rotavirus.

### **Exclusion**

Until 48 hours after the symptoms have subsided.

### **Do's**

Encourage staff and children to practice good hygiene at all times.

Send the child home if unwell advise the parents to see their GP.

Use PPE when handling blood or body substances.

## **Rubella (German Measles)**

Rubella is a viral infection. The infection is mild but can cause congenital rubella syndrome. When a pregnant woman who is not immune gets a rubella infection in the first twenty weeks of pregnancy it can have serious consequences for the pregnant woman and for the unborn baby. If you are not immune and develop rubella infection in the first twenty weeks of pregnancy, there is a chance that the virus will affect the baby's developing organs and cause serious disability.

In the UK, the introduction of the MMR vaccine has resulted in the infection being virtually eliminated, although due to the decline in the uptake of the measles, mumps and rubella vaccine it has resulted in some cases within the UK.

## **Symptoms**

The symptoms of rubella are mild. Usually the rash is the first indication, although there may be mild catarrh, headache or vomiting at the start.

The rash takes the form of small pink spots all over the body. There may be a slight fever and some tenderness in the neck, armpits or groin and there may be joint pains. The rash lasts for only 1 or 2 days, and the spots remain distinct, unlike measles.

## **Spread**

Spread is by the respiratory route.

## **Exclusion**

Exclude from school for 5 days from the appearance of the rash.

## **Do's**

Promote 2 MMR vaccinations for all pupils.

Female staff should have 2 MMR vaccinations or show a history of rubella infection.

## **Scabies**

Scabies is a skin infection caused by tiny mites that burrow in the skin. The pregnant female mite burrows into the top layer of the skin and lays about 2 to 3 eggs per day before dying after 4 to 5 weeks. The burrows may be several centimetres long but they are very close to the surface of the skin. The eggs hatch after 3 to 4 days into larvae which move to hair follicles where they develop into adults.

## **Symptoms**

The appearance of the rash varies but tiny pimples and nodules are characteristic. Secondary infection can occur if the rash has been scratched. The scabies mites are attracted to folded skin such as the webs of the fingers. Burrows may also be seen on the wrists, palms, elbows, genitalia and buttocks.

## **Spread**

Spread is most commonly by direct contact with the affected skin.

Occasionally if there is impaired immunity or altered skin sensation, large numbers of mites occur and the skin thickens and becomes very scaly.

## **Exclusion**

Yes. The infected child or staff member should be excluded until after the first treatment has been carried out.

## **Do's**

The child can return after the first treatment has been completed.

It is important that the second treatment is not missed and this should be carried out 1 week after the first treatment.

All household contacts and any other very close contacts should have 1 treatment at the same time as the second treatment of the case.

## **Scarlet Fever**

A wide variety of bacteria and viruses can cause tonsillitis and other throat infections. Most are caused by viruses but streptococci bacteria account for 25 to 30% of cases. Certain strains of streptococcus bacteria produce a toxin which causes scarlet fever in susceptible people.

## **Symptoms**

There is acute inflammation extending over the pharynx or tonsils. The tonsils may be deep red in colour and partially covered with a thick yellowish exudate. The illness symptoms vary but in severe cases there may be high fever, difficulty in swallowing and tender enlarged lymph nodes.

A rash develops on the first day of fever, it is red, generalised, pinhead in size and gives the skin a sandpaper-like texture and the tongue has a strawberry-like appearance. The fever lasts 24 to 48 hours. Scarlet fever is now usually a mild illness but is rarely complicated by ear infections, rheumatic fever which affects the heart, and kidney problems.

## **Spread**

Spread is by the respiratory route through inhaling or ingesting respiratory droplets or by direct contact with nose and throat discharges especially during sneezing and coughing.

## **Exclusion**

Yes. Children can return to school 24 hours after commencing appropriate antibiotic treatment. If no antibiotics have been administered the person will be infectious for 2 to 3 weeks. If there is an outbreak of scarlet fever at the school or nursery, the HPT will assist with letters and factsheet to send to parents or carers and staff.

## **Do's**

Ensure that particular attention is paid to hand washing at all times.



Send the child home from school if unwell.

Advise parents to take the child to their GP.

Inform the HPT if there is an outbreak.

## **Slapped cheek syndrome, Parvovirus B19, Fifth's Disease**

### **Symptoms**

The illness may only consist of a mild feverish illness which escapes notice but in others a rash appears after a few days. The rose-red rash makes the cheeks appear bright red, hence the name 'slapped cheek syndrome'. The rash may spread to the rest of the body but unlike many other rashes it only rarely involves the palms and soles.

The child begins to feel better as the rash appears. The rash usually peaks after a week and then fades. The rash is unusual in that for some months afterwards, a warm bath, sunlight, heat or fever will trigger a recurrence of the bright red cheeks and the rash itself. Most children recover and need no specific treatment. In adults the virus may cause acute arthritis.

The virus can affect an unborn baby in the first 20 weeks of pregnancy. If a woman is exposed early in pregnancy (before 20 weeks) she should seek prompt advice from whoever is giving her antenatal care.

### **Spread**

Spread is by the respiratory route and a person is infectious 3 to 5 days before the appearance of the rash. Children are no longer infectious once the rash appears. There is no specific treatment.

### **Exclusion**

None. The child need not be excluded from school because he or she is no longer infectious by the time the rash occurs.

### **Do's**

Do advise a visit to the GP.

Do request that parents inform the school of a diagnosis of fifth disease.

## **Threadworm**

Threadworm infection is an intestinal infection and is very common childhood infection.

### **Symptoms**

Adult worms live in the small intestine. Mature female worms migrate through the anus and lay thousands of eggs on the perianal skin causing itching, particularly at night. Infective embryos develop within 5 to 6 hours and these are transferred to the mouth on fingers as a result of scratching. Larvae emerge from the eggs in the small intestine and develop into adult worms.

## **Spread**

Re-infection is common and infectious eggs are also spread to others directly on fingers or indirectly on bedding, clothing and environmental dust.

## **Exclusion**

None needed.

## **Do's**

Do encourage high standards of basic hygiene.

Do recommend a consultation with the GP or pharmacist.

Do be aware that transmission is uncommon in schools.

## **Don'ts**

Don't forget that threadworm infection can lead to lack of sleep, irritability and loss of concentration.

## **Tuberculosis (TB)**

TB is a bacterial infection that can infect any part of the body, including the lungs. It can affect people of all ages, classes and ethnic background.

## **Symptoms**

People with TB might have all or some of the following symptoms; cough, loss of appetite, loss of weight, fever, sweating particularly at night, breathlessness and pains in the chest. TB in a part of the body other than the lungs may produce a lump or swelling which can be painful.

## **Spread**

Some (but not all) people who develop TB of the lung (pulmonary TB) are infectious to others. Spread happens when these infectious cases pass TB in their sputum to someone else by inhalation. This happens if the person had a lot of close contact with the case (especially if the case has been coughing). The incubation period is 4 to 12 weeks.

## **Exclusion**

Yes. Pupils and staff with infectious TB can return to school after 2 weeks of treatment if well enough to do so and as long as they have responded to anti-TB therapy. Pupils and staff with non-pulmonary TB do not require exclusion and can return to school as soon as they are well enough.

## **Do's**

Do inform and discuss with the Health Protection Team, TB nurses or school health advisor before taking any action.

Do maintain confidentiality of persons with suspected TB.

Do not exclude pupils whilst they are infectious, following taking advice from TB nurses or the Health Protection Team.

## **Don'ts**

Don't exclude children or staff with non-pulmonary TB or those with pulmonary TB who have effectively completed at least 2 weeks of treatment as confirmed by the TB nurses.

## **Whooping Cough (pertussis)**

Whooping cough (pertussis) is a bacterial chest infection caused by *Bordetella pertussis*. The national immunisation schedule recommends that women 16 to 32 weeks pregnant should be immunised to maximise the likelihood that the baby will be protected from birth. Infants receive 3 doses of vaccination by their 16th week and an additional pre-school booster.

## **Symptoms**

The early stages of whooping cough, which may last a week or so, can be very like a heavy cold with a temperature and persistent cough. The cough becomes worse and usually the characteristic 'whoop' develops. Coughing spasms are frequently worse at night and may be associated with vomiting. The whole illness may last several months.

The disease is usually more serious in children of pre-school age. Antibiotics rarely affect the course of the illness, but may reduce the period the child is infectious.

## **Spread**

Whooping cough spreads by direct contact with airborne particles or discharges from the nose and throat.

## **Exclusion**

Yes. A child or staff member should not return to school until they have had 48 hours of appropriate treatment with antibiotics and they feel well enough to do so or 21 days from onset of illness if no antibiotic treatment.

Children should be immunised against whooping cough in their first year of life.

## **Do's**

Do advise parent to see GP.

Do allow the child to return to school after exclusion period even if they are still coughing.

Do encourage parents to have their children immunised against whooping cough.