



Public Health
England

**Public Health England
South Yorkshire Team**

THE MANAGEMENT AND CONTROL OF INFECTIOUS DISEASES

**MANUAL FOR SCHOOLS, NURSERIES AND THE
YOUTH SERVICE IN SOUTH YORKSHIRE**

4th Edition

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SECTION 1

INTRODUCTION

1.1 THE MANAGEMENT AND CONTROL OF INFECTIOUS DISEASES FOR SCHOOLS, NURSERIES AND THE YOUTH SERVICE IN SOUTH YORKSHIRE

Introduction

This handbook has been compiled for the use of teachers and school nurses, to act as an initial and immediate source of information about the major infectious diseases, which may occur in schools. It is impossible to plan for every eventuality, and schools are encouraged to seek further advice and information where necessary from the appropriate school nurse or from Public Health England – South Yorkshire Team.

The format of the handbook has been designed so that information for school staff is supplemented by information that can be duplicated and sent to parents where there is a problem in the school with a particular infectious disease. The information sheet for parents may be photocopied as it stands, if the information contained within it is appropriate, or it may act as the core information, which can be augmented and customised by the school to suit a particular set of circumstances. For some diseases additional information has been provided for head teachers. Information in this handbook supplements the 'Guidance on infection control in schools and other childcare settings' produced by PHE. The latter is available in the version of a poster, and can also be downloaded from the PHE website (www.phe.gov.uk).

The School Nurse

The school nurse is the key front-line professional linking the service to the department of health services. She/he has access to a number of written policies, including this document, which gives advice on symptoms and specific diseases and the recommended action to take. She/he also has ready access to **a school doctor** and Public Health Physicians. However, school nurses may cover several schools and may not always be immediately available. In this event particularly when the situation is perceived as serious, advice on individual pupils may be sought from a Community Paediatrician at the Community Child Health Service and advice of a general nature or on the potential for an outbreak may be obtained from Public Health England – South Yorkshire Team. Although the initial contact for general advice is with the school nurse it should be remembered that school **health** staff may not examine children without expressed parental consent and the responsibility for individual diagnosis and management lies with the pupils own GP.

Management of individual cases of infection and outbreaks

From time to time advice may be required on the occurrence of particular symptoms or signs in pupils such as rashes, jaundice or diarrhoea. When teachers have identified a health problem within a school the school nurse should be provided with the necessary information for its management. This includes:

- the numbers involved;
- the affected children/staff's names and contact details;
- their age and class;
- the symptoms;
- the dates of onset and absence, symptoms etc.

Once contacted the school nurse will assess the situation and her further action will fall into two broad categories:

- I. Issues that may be dealt with by the school nurse alone. This will include problems not requiring specific intervention nor having the potential to spread within the school and on which the school nurse feels able to provide the relevant advice.
- II. Issues about which the school nurse is unsure, which require more specialised advice or further co-ordinated action. These include problems which indicate a potential outbreak of an infectious disease or which relate to a potentially serious condition. The School Nurse should refer these to the Community Paediatrician and Public Health England – South Yorkshire Team who will then co-ordinate any further action required. This may well involve professionals in education, environmental health and the health services.

Information and advice

Head teachers may contact a school nurse when they have a health problem within a school for which they need information and advice. They should alert the Public Health England- South Yorkshire Team to a potentially serious medical situation within the school, which may require further action.

In general Public Health England - South Yorkshire Team (which has the responsibility for the health of the whole community) would wish to know of single cases of serious conditions such as diphtheria, polio, meningitis or dysentery or potential outbreaks of less serious conditions. That is two or more pupils in the same class or three or more in the whole school with the same condition. Situations in which Public Health England - South Yorkshire Team should be contacted urgently by telephone are indicated in the text. Whenever there is doubt advice should be sought.

Children who need special consideration

Some children may be at increased risk of infection because of their medical/physical special needs that may be temporary or permanent.

Other children at risk of infection include those recently recovering from very major surgery and children who suffer from malignant disease (leukaemia or cancer) or altered immunity. Some children may receive high doses of steroids and be prone to infection. Normally the doctor caring for these children will advise the parents to alert the school to infections requiring action. These may include chickenpox, measles, hepatitis A, when immunisation may be required to protect the child. Similarly staff members with malignant disease or on high dose steroid treatment may need to seek medical advice. Risk assessment of susceptible individuals within the school community should be considered.

Pregnant members of staff, and mothers

Pregnant women, whether members of staff, pupils or mothers of pupils should be informed whenever there is a case of rubella, chickenpox, measles or slapped cheek syndrome in the school. This will allow them to seek medical advice, at the earliest opportunity, if they have been exposed to the case. In the early stages of pregnancy they may not have informed colleagues, and a laminated sheet with advice for pregnant women may be displayed at prominent places.

It must be remembered that the greatest risk to pregnant women from these infectious diseases comes from their own children, and not from the workplace. However, it is recommended that all female staff under the age of 25, working with young children should have evidence of two doses of MMR vaccine.

Surveillance

During a single week in February 2002, over 6000 school pupils in Sheffield were absent from school, suffering from Influenza. Some schools had an absence rate as high as 45%. It was only by pure chance that Public Health England - South Yorkshire Team became aware of this situation, and was able to carry out a crude but rapid survey of schools to ascertain the extent of the problem. So that the Public Health England - South Yorkshire Team can offer the best advice to schools, **it would be very helpful if schools noticing a particularly high sickness absence rate could alert the service as soon as possible.** It is not possible to set a "trigger" level as every school will have its own background absence rate. However, marked increases above this should be notified, particularly if most children are absent with the same symptoms.

1.3 USEFUL CONTACT NUMBERS

Your School Nurse _____

Tel _____

Barnsley

Child Health Service 01226 777891 (Schools) 01226 777970 (pre school)
01226 777893

Public Health England – South Yorkshire Team 0114 3211177

Barnsley District General Hospital 01226 730000

Education Department 01226 773558

Occupational Health Nurse 01226 730000 ext. 4939

Local Authority (Environmental Health) 01226 773860

Doncaster

Child Health Service 01302 796309

Public Health England – South Yorkshire Team 0114 3211177

Community Infection Control Nurse 01302 565656

Doncaster Royal Infirmary 01302 366666

Education Department 01302 737222

Occupational Health Nurse 01302 737045

Local Authority (Environmental Health) 01302 737539

Rotherham

Child Health Service 01709 304873

Public Health England – South Yorkshire Team 0114 3211177

Rotherham General Hospital Trust 01709 820000

Education Department 01709 382121

Occupational Health Nurse 01709 304437

Local Authority (Environmental Health) 01709 823164

Sheffield

Community Child Health Service 0114 226 2098

Public Health England – South Yorkshire Team 0114 3211177

Royal Hallamshire Hospital 0114 271 1900

Northern General Hospital 0114 243 4343

Sheffield Children's Hospital 0114 271 7000

Health & Safety Section,

Education Department 0114 272 6444

Occupational Health Nurse 0114 272 6444

Local Authority (Environmental Health) 0114 27 34644

Please add any other useful numbers of your own.

SECTION 2

INFORMATION ON COMMON INFECTIOUS DISEASES

2.1 RASHES AND SKIN DISORDERS

Chicken Pox Advice for Schools

What is it?

Chicken pox is caused by a virus called Varicella zoster.

Symptoms

The symptoms of chicken pox begin with a 'flu-like illness, a rash and a slightly raised temperature. The most characteristic feature of chicken pox is the rash, which starts out as crops of raised red spots, which then develop into small blisters that scab over in 3-4 days. The rash can be widespread but is usually concentrated towards the centre of the body.

Chicken pox is mainly a disease of children and is usually a mild illness. However, children with leukaemia or other problems of the immune system have an increased risk of developing a severe form of the illness. The virus causing chicken pox appears to remain dormant within the body after recovery and can occasionally be 'reactivated' in later life. This 'reactivation' is the cause of shingles (Herpes zoster) in adults and older children. Chicken pox can be much more serious in adults and particularly during pregnancy. For this reason it is important to encourage children to catch the disease at an early age, to prevent infection in adulthood.

Spread

Chicken pox is highly infectious and most people have had the illness before they reach adulthood, although the incidence of chicken pox in adults is rising in the UK. A child who has had chicken pox will be immune for life. It is usually spread from person to person by coughs and sneezes, with an incubation period of two to three weeks. Children with chicken pox can pass it to others from 1-2 days before the rash appears until 5 days after the rash has started. It is very difficult to prevent the spread of chicken pox as it has already been passed on to others before the spots appear and the diagnosis becomes obvious.

Prevention

Teachers should be aware of any children in their class who would be particularly at risk if they caught chicken pox, as it is particularly important that these children are protected against infection. The school doctor will be able to give advice on these children. There is a vaccine available for chicken pox, but it is only used in special circumstances, to protect highly vulnerable children. It is not recommended for routine use as part of the childhood immunisation programme.

Exclusion Periods

Children should be encouraged to get chicken pox at a young age to prevent the dangers of chicken pox in adulthood. Although national policy is to recommend exclusion from school till five days after the onset of rash, this is unlikely to prevent spread.

Teachers and mothers who are pregnant should be warned of a case of chicken pox in the school, and advised to see their GP as soon as possible if they are not already immune.

Chicken Pox

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

Chicken pox is a mild illness caused by a virus. It is much more severe in adults than in children, and can be a particular problem in pregnancy.

What are the symptoms?

Chicken pox is like a mild case of 'flu with a rash. The rash is the most noticeable feature and starts out as crops of raised red spots. These develop into small blisters which eventually scab over in 3-4 days. Chicken pox is mainly a disease of children and is usually, but not always, a mild illness.

How is it spread?

Chicken pox is highly infectious and is usually spread from person to person by coughs and sneezes. The incubation period is two to three weeks. Children with chicken pox can pass it to others from 1-2 days before the rash appears until 5 days after the rash has started. A child who has had chicken pox will be immune for life.

How can it be prevented?

Chicken pox is highly infectious and it is very difficult to prevent it spreading from person to person. Children should be encouraged wherever possible to catch chicken pox, to prevent them developing the disease when they are adults, when the infection may be more serious. There is a vaccine available for chicken pox, but it is only used in special circumstances, to protect highly vulnerable children. It is not used routinely as part of the childhood immunisation programme.

Should children stay away from school?

Children with chicken pox should stay away from school for five days from the first appearance of the rash. Please make sure that the class teacher knows that your child has chicken pox, in case other children, parents or teachers need to avoid infection for medical reasons.

If your child has a condition or is having treatment causing suppression of their immune system, you should see your doctor immediately and tell him/her that your child may have been in contact with chicken pox.

If you are pregnant, and you have been in contact with a case of chickenpox, you should tell your doctor about it as soon as possible if you have never had chickenpox yourself.

Cold sores (Herpes simplex)

Advice for schools

What is it?

Cold sores are caused by infection with the Herpes simplex Virus, commonly presenting as blisters in the nose or mouth.

Symptoms

It often starts with symptoms of tingling in an area of nose or mouth followed by the appearance of a blister. The blister crusts and heals without a scar. Children who are infected for the first time can have more widespread blisters, mouth ulcers and fever which makes them quite ill. Subsequent attacks normally present with cold sores only.

They have a tendency to recur because the cold sore virus does not disappear from the body completely after the infection. The virus remains in an inactive state, and re-activation can be triggered by factors such as stress, illness, and sunlight.

Spread

Cold sores can spread from person to person. There are two ways of spread. They are usually spread by kissing since the virus is active in the cold sore blister. The virus can also be picked up by touching the sores, and thus spread to others.

Prevention

Cold sores are highly infectious, especially among young children. The most effective method of prevention is to avoid contact with oral secretions and the blisters of an infected person. Hands must be thoroughly washed after touching cold sores. Persons with active cold sores should avoid kissing young children. Some people with frequent recurrences may receive medicines from their GP for prevention. Within the Nursery setting, children with cold sores should be discouraged from "mouthing" toys. Toys that are exposed to oral secretions should be washed on a regular basis.

Exclusion Period

Persons with cold sores need not be excluded from school. Children infected for the first time may shed the virus for several weeks. However exclusion is not effective since infection is virtually universal in early childhood.

Hand, foot and mouth disease

Advice for Schools

What is it?

Hand, foot and mouth disease is a mild viral illness caused by the Coxsackie virus that often occurs in epidemics.

Symptoms

The typical symptoms are a sore throat along with a rash, or ulcers, in the mouth and blisters on the hands and feet. There may also be a fever. The illness is usually mild and can even occur without any symptoms. If a rash does develop it lasts from five to ten days.

Spread

The illness can be spread by coughs and sneezes or the stools of people with the infection. The precise way in which the illness spreads throughout communities is not known.

Prevention

There is no specific treatment for those with the illness and there is no immunisation against it. The mainstay of prevention is the practice of good personal hygiene.

- Children should be educated about the need for good personal hygiene.
- Hands should be washed after every visit to the toilet and before meals.
- The use of communal towels should be discouraged - single use paper towels should be used.
- Children with a rash should be prevented from swimming in swimming pools as there is some evidence that the illness can be spread in this way.

Exclusion

If children are unwell they should stay off school until they feel well; otherwise they need not be excluded from school.

Action

The school nurse should be kept informed about cases. She will be able to give advice on good hygienic practice and may be able to help with the 'hygiene' education of children.

Contracting Hand, foot and mouth in pregnancy can, in very rare cases, causes miscarriage. The risk of complications is very low. There is normally no risk to the unborn baby, however if hand, foot and mouth is contracted shortly before giving birth the infection can be passed onto the baby.

Hand, foot and mouth disease

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

Hand, foot and mouth disease is a mild illness caused by a virus that often occurs in epidemics. It is not related in any way to "Foot and Mouth" disease of animals.

What are the symptoms?

The usual symptoms are a sore throat and a rash, ulcers in the mouth and blisters on the hands and feet. There may also be a fever. The illness is usually mild and can even occur without any symptoms. If a rash does develop it lasts from five to ten days.

How is it spread?

The illness is passed from person to person by coughs and sneezes or the stools of people with the infection.

How is it prevented?

There is no specific treatment for people with the illness and there is no immunisation against it. The best method of prevention is the practice of good personal hygiene, that is:

- Everyone should wash their hands after every visit to the toilet and before meals.
- If it is possible each family member should have his or her own towel.
- Whilst the rash is present swimming in swimming pools should be avoided.

In order to prevent the illness spreading at school, action is being taken to keep the level of personal hygiene as high as possible.

Should children stay away from school?

There is no need for any child to stay away from school unless they do not feel well enough to go.

If pregnant woman contracts hand, foot and mouth the risk of complications is low. Miscarriage can occur in very rare cases.

If the infection is contracted shortly before giving birth the baby may be born with the infection – most babies, however, will only have mild symptoms.

Impetigo

Advice for Schools

What is it?

Impetigo is a skin infection caused by a bacterium called *Staphylococcus aureus*.

Symptoms

Impetigo appears as a flat, yellow, crusty or weeping patch on the skin. People with impetigo do not usually feel unwell.

Spread

Impetigo spreads from person to person by direct contact with the infected skin or the hands of those with the infection. It can sometimes be caught from contaminated objects (e.g. clothes), although it is unlikely that this plays a major role in the spread of impetigo.

Prevention

In order to prevent impetigo it is necessary to maintain a good standard of personal hygiene within schools at all times. Hand washing appears to be the most important factor - hands should be washed regularly with soap and hot water and dried on single use paper towels if possible. This is especially important for people who are in close contact with someone with impetigo. No one should use the same towel as someone with impetigo.

The prompt treatment of the infection with antibiotics also helps prevent the spread of the disease.

Exclusion Periods

Pupils with impetigo should be excluded from school until the skin is healed or until 48 hours after antibiotic treatment has begun. Contacts do not require exclusion from school.

Impetigo

Advice for Parents

Dear Parent

Please read the following information carefully

What is it?

Impetigo is a skin infection caused by bacteria.

What are the symptoms?

Impetigo appears as a flat, yellow, crusty or weeping patch on the skin. People with impetigo do not usually feel unwell.

How is it spread?

Impetigo spreads from person to person mainly by direct contact with the infected skin or the hands of people with the infection. On rare occasions it may also be caught from objects that have been used by people with impetigo, such as clothes and towels.

How is it prevented?

Regular hand washing using soap and water is the most important way in which impetigo can be prevented. This is very important for people who are in close contact with someone with impetigo.

Once impetigo has occurred it needs to be treated with antibiotics which will help the skin to heal and will help prevent other people from catching it. The doctor may provide antibiotic cream, tablets, or, sometimes, both. Children with impetigo also need to be kept especially clean. The infected skin area should be washed with mild soap and water and their hands should be washed frequently. Their clothes and towels should be changed daily. People with impetigo should have their own towel, which should be kept aside solely for their own use.

Should children stay away from school?

All pupils with impetigo should be kept away from school until their skin has healed or until 48 hours after any antibiotic treatment has begun. Children coming into contact with someone with impetigo do not require any treatment or exclusion from school.

Measles

Advice for Schools

What is it?

Measles is a highly infectious viral disease caused by the measles virus in those not immunised against it.

Symptoms

Measles usually begins with 'flu like symptoms, pink eyes, runny nose and a cough. After 4-7 days a red blotchy rash develops on the face which then spreads to the rest of the body. The rash usually lasts for another 4-7 days.

Spread

Measles is one of the most highly infectious diseases and is usually spread from person to person by coughs and sneezes. People with the illness can pass it to others from before any symptoms develop until about four days after the rash appears.

Prevention

The only effective way to prevent measles is to immunise all children against it with the MMR vaccine as part of the routine schedule of childhood immunisation.

When several cases of measles occur in any one school Public Health England - South Yorkshire Team should be informed. Unimmunised children who have been in contact with a case of measles can be protected against the disease if immunisation is given within 72 hours of the contact. There is no age limit to the immunisation.

The Head teacher should inform parents of children who are immuno-suppressed (e.g. receiving treatment for cancer) of cases occurring in schools. They should then be advised to contact their doctor.

Measles during pregnancy can result in early delivery or even loss of the baby. If a pregnant member of staff is exposed to a case of measles, she should immediately contact her doctor for advice.

Exclusion Periods

Pupils with measles should be excluded from school for four days after the onset of the rash.

Measles

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

Measles is a highly infectious viral disease.

What are the symptoms?

Measles feels just like 'flu at first along with pink eyes, a runny nose and a cough. The 'flu like feeling lasts for about 4-7 days before a red blotchy rash develops. This rash usually starts on the face and then spreads to the rest of the body and can last for 4-7 days. Measles is usually a mild illness, although sometimes it can be severe and can cause ear and chest infections. It can also cause brain damage and, rarely, kill.

How is it spread?

It is usually spread from person to person by coughs and sneezes. People with the illness can pass it to others from shortly before the symptoms start until about four days after the rash appears.

How can it be prevented?

The only effective way to prevent measles is to immunise all children against it with the MMR vaccine that is part of the routine programme of childhood immunisation.

If your child has not been immunised against measles it is strongly recommended that they should be. This will not only protect your children from the illness but will also prevent the spread of measles to others.

Should children stay away from school?

To help prevent the spread of measles within school children with measles should stay away from school until four days after the beginning of the rash. All other children should go to school as normal.

If your child has a condition or is having treatment which suppresses their immune system, you should see your doctor immediately and tell him/her that your child may have been in contact with measles.

Molluscum Contagiosum

Advice for Schools

What is it?

Molluscum Contagiosum is a skin infection which is caused by the molluscum contagiosum virus (MCV). Once exposed to the virus it can take anything from 7 days to 6 months for the infection to appear and can take up to two years to clear. In most cases no treatment is necessary

Symptoms

Molluscum Contagiosum appears as small, firm, raised, wart-like spots on the skin which usually form in small clusters. The spots may be skin coloured, pink or pearly white and some may have a tiny pus-like head in the centre. The spots can develop anywhere but often develop on areas of skin which are not usually covered, i.e. hands, arms, face, neck and sometimes chest and stomach.

There are normally around 20 mollusca. If there are significantly more than this this may be a sign that the immune system is not working properly.

Each mollusca will crust over after approximately 6 – 12 weeks before eventually healing up.

Spread

Molluscum Contagiosum is spread through close, direct contact with someone who is infected, or by coming into contact with contaminated objects such as towels, flannels, toys and clothes.

MCV is highly infectious and can be passed easily among children at nursery and school who play together, share toys and are constantly coming into contact with other children.

The contagious period is thought to last up until the last spot heals completely

Prevention

Most people will be immune to the virus. Those with damaged immune systems are more likely to be affected.

If a child has molluscum contagiosum the affected area should be covered if possible.

Avoid sharing towels, flannels and clothing with others.

Avoid sharing baths.

Avoid scratching the spots because this can cause the virus to infect other areas of your skin and prolong the infection.

Exclusion Periods

No exclusion is necessary. Most people are naturally resistant to MCV so there is usually no need to keep children who have the infection away from school.

Rubella (German Measles)

Advice for Schools

What is it?

Rubella is a mild viral illness caused by the Rubella virus. It is important because of its effect on the developing baby. If a pregnant mother catches rubella in the first 16 weeks of pregnancy her child is at an increased risk of being born with a congenital abnormality of the eyes, ears or heart, or serious learning difficulties.

Symptoms

A mild fever along with a widespread rash are the symptoms of rubella along with swollen lymph glands especially of the back of the neck. The illness is usually mild and most people remain perfectly well. It may even go completely unnoticed, as up to half of all rubella infections do not have a rash. Rubella can be difficult to diagnose without laboratory tests, as its rash can look like that caused by scarlet fever or other viral diseases.

Spread

Rubella is highly infectious and is usually spread from person to person by coughs and sneezes. People with the illness can pass it to others from at least one week before any symptoms develop up until about four days after the rash has appeared.

Prevention

The only effective way to prevent rubella is to immunise all children against it with the MMR vaccine, which is a part of the routine programme of childhood immunisation. It is important that both boys and girls are immunised against rubella, so that the amount of virus which is circulating in the community is kept as low as possible. Boys who are not immunised may still catch Rubella, and may continue to pass the infection onto their pregnant female relatives. It is also important to ensure that all female teaching staff of childbearing age are protected against rubella.

To prevent the risk of congenital abnormalities, female teaching staff and the mothers of pupils should be told of a case of rubella in a child at school and if they are pregnant they should be advised to see their GP.

Exclusion Periods

To help prevent the spread of rubella within school children with rubella should be excluded from school for six days after the start of the rash. However, as the disease can be passed to others before any symptoms develop, the exclusion of pupils can not be expected effectively to stop it spreading within schools. All other children should go to school as normal.

Rubella (German Measles)

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

Rubella is a mild illness caused by a virus. Rubella is important not because of its effect on the children or adults who get it, but because of its effect on the developing baby. If a pregnant mother catches rubella in the first 16 weeks of pregnancy her child is at an increased risk of being born with an ear, eye or heart problem, or having serious learning difficulties.

What are the symptoms?

The symptoms of rubella are a widespread rash and a slightly raised temperature. The illness may go completely unnoticed as most people are perfectly well and many people do not develop a rash.

How is it spread?

Rubella is a highly infectious disease and is usually spread from person to person by coughs and sneezes. People with the illness can pass it to others from at least one week before any symptoms develop up until about four days after the rash has appeared.

How can it be prevented?

The only effective way to prevent rubella is to ensure that all children are immunised against it with the MMR vaccine that is part of the routine programme of childhood immunisation. If your children have not been immunised, you should see your doctor to ensure your children, both boys and girls, are protected from rubella before they reach child bearing age. Boys who have not been immunised may still catch Rubella, and may then pass it on to pregnant members of their family.

Should children stay away from school?

To help prevent the spread of rubella to others within school, children with rubella should be kept away from school for six days from the start of the rash. All other children should go to school as normal.

If any members of your household are up to 5 months pregnant they should visit their GP so that he can make sure that there is no risk to their babies.

Scabies

Advice for Schools

What is it?

Scabies is caused by a minute insect (the scabies mite) which burrows into the skin particularly in the skin crease areas, usually of the hands and wrists.

Symptoms

The most common symptom of scabies is severe itching of the skin, which may be particularly bad at night time. The itching may be bad enough to cause repeated scratching. This may lead to visible scratch marks, which may become infected. The mites are not easily seen with the naked eye and the diagnosis usually has to be made by looking for characteristic burrows in the skin, often in finger webs and on wrists.

Spread

Scabies is spread from person to person by direct skin to skin contact. A person with scabies can spread the infection to others until he/she is successfully treated. Shared clothing is not believed to be important in the spread of scabies, so "Dressing-up" need not be discouraged.

Treatment

Treatment with an anti-scabies lotion for all close family contacts is recommended and is obtained from the family GP or chemist. It is very important that the whole family receive treatment at the same time as the patient even if they don't have any itch. This is because there is often a delay of up to 6 weeks between acquiring the infection and the beginning of the "itch". Treatment is essential to kill all the insects and prevent new cases in the family. Treatment is very effective although itching may persist for 1-2 weeks after successful treatment.

Prevention

In order to prevent scabies from spreading in school all people with scabies should be excluded from school until the day after treatment has begun. The scabies mite dies very quickly once it has left the human body, so clothes and bedding are unlikely to be a source of infection. They may be laundered in the usual manner.

Exclusion Periods

All people with scabies and their close contacts should be excluded from school until the day after treatment has begun.

Scabies

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

Scabies is caused by a minute insect that burrows into the skin.

What are the symptoms?

Scabies causes severe itching of the skin, which is often worse at night. The itching may cause repeated scratching which may lead to visible scratch marks. These may become infected. Scabies may be present for 2-6 weeks before the itching begins. It is easily treated by using a cream or lotion from the GP.

How is it spread?

Scabies is spread from person to person by direct skin to skin contact. A person with scabies can spread the infection to others until he/she is successfully treated.

How can it be prevented?

In order to prevent scabies from spreading it is important to treat everyone with scabies as well as everyone who has had direct skin contact with them. All these people should be treated at the same time to prevent re infection. The scabies mite dies very quickly away from the human body, so clothes and bedding are not likely to be sources of infection. They may be washed in the usual way. All people with scabies should stay away from school until the day after treatment has begun.

What should you do?

If you are contacted because you need treatment you should follow the advice that is given to you. If you think that your children or any one of your family has scabies you should contact your GP. If he confirms that it is scabies you should follow his advice. All children should be kept away from school until the day after treatment has started.

Shingles

Advice for Schools

What is it?

Shingles is a blistering and usually painful rash caused by the same virus as chicken pox. It is a reactivation of the virus, which occurs some time (often years) after the initial infection with chicken pox.

Symptoms

The rash occurs along the pathway of a single nerve and is usually very painful. A crop of blisters occurs, often after the pain, and usually limited to one side of the body. It is most common in older adults, but it can also occur in children, especially those who are immuno-suppressed or being treated for cancer.

Spread

Shingles will only develop in a person who has previously had chicken pox - you cannot catch shingles, hence it cannot be prevented. However the fluid from the blisters can spread the virus to another person for about a week after the rash has appeared and can cause chicken pox in them. This can be minimised by covering the rash with a dry dressing until the blisters dry up.

However, immuno-suppressed children or those being treated for cancer, who have not had chicken pox should *not* be allowed to contact cases of shingles, and should see their GP to arrange for a protective vaccine.

Exclusion period

Neither children nor teachers need to stay away from school if the shingles rash can be kept covered by clothing. Exclude only if rash is weeping and cannot be covered.

Shingles

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

Shingles is a painful rash or blisters, which is caused by the same virus that causes chicken pox. It is actually a reactivation of the chicken pox virus, so it only occurs in people who have had chicken pox at some time in the past.

What are the symptoms?

A rash of painful blisters usually appears along the path of a nerve, e.g. along a rib. It usually occurs on just one side of the body. There is often pain before the blisters appear.

Who gets shingles?

The disease only occurs in people who have already had chicken pox. It mainly affects adults, but it can also occur in children, especially those who are immuno-suppressed or who are being treated for cancer.

How is it spread?

Because it is the reactivation of a virus, you cannot catch shingles. However, fluid from the blisters can spread the virus to other people, who will develop chicken pox if they have never had it before. The rash should be covered with a dry dressing until the blisters have dried up.

How can it be prevented?

Shingles itself cannot be prevented, but children who are immuno-suppressed or are being treated for cancer, and who have not had chicken pox, should not be allowed to contact cases of shingles, and they should see their GP to ask about protection.

Should children stay away from school?

Children and adults with shingles do not need to stay away from school if the shingles rash can be kept covered by clothing.

Skin Infections

Advice for Schools

General Advice

Children are prone to suffer from various infections of the skin. None of these are serious, although they may look unsightly, and may cause discomfort and irritation. They can be difficult to eradicate. They are most often seen as sporadic cases, rather than in outbreaks, although these can occur.

Many of these infections may be associated with poor personal hygiene, or the presence of infection in other members of the family. The school nurse and health visitor have a very important role in tracing contacts, and in helping to improve home hygiene.

In school, the sharing of clothing and footwear should be discouraged. Dressing up clothing, worn over everyday clothes, is an exception. Surfaces used for barefoot activities in school should be kept in good repair, and regularly cleaned and disinfected.

Non-Infectious Conditions

Eczema

Eczema itself is not infectious, but is frequently an allergic reaction, causing an itchy red rash, which may be localised or extensive. The rash may become infected as a secondary phenomenon, but there is no problem with spread to other children. Children with eczema should be encouraged to dry their hands particularly carefully after washing, and they may need to avoid contact with certain substances e.g. soaps or detergents

Psoriasis

This skin condition is not infectious. Patches of skin have a high turnover of skin cells, and the areas appear red and scaly. Although the condition can be very extensive, and may appear unsightly, there is no need to restrict any activities, and the condition cannot spread to others.

Infections of the Skin

Verrucas (Plantar Warts)

These are caused by a viral infection, which is spread by direct or indirect contact, e.g. via floors. The incubation period is believed to be around 4 months, but may be longer. Verrucas usually heal spontaneously within a few months, but if treatment is felt necessary, local applications can be supplied by GP or pharmacist. Children need not be excluded from school, or from any barefoot activity, including showering and swimming (although managers of local baths may have their own rules). Some, but not all, experts recommend covering verrucas with waterproof plasters for barefoot activities, in order to limit spread.

Ringworm

This is a fungal infection of the skin, which may affect various parts of the body.

1. Feet (Athlete's Foot)

The fungal infection is encouraged in warm, soggy environments. Advice about treatment should be sought from the GP or pharmacist. Careful drying of the feet and the use of foot powders and natural fibre (e.g. cotton) socks and shoes are helpful. There is no need to exclude children from gym or swimming.

2. Scalp (Tinea Capitis)

This fungal infection causes a ring shaped rash on the scalp, associated with the breaking of hairs. It may be spread directly (head to head) or indirectly, via combs, or from infected animals. Treatment with antifungal tablets should be sought from the GP. Exclusion from school is not necessary once treatment has started.

3. Nail

This fungal infection is not common in children. Exclusion is not necessary.

4. Body (Tinea Corporis)

This fungal infection causes a ring shaped, spreading rash on the body. Spread is by direct contact, or via contaminated surfaces, or by contact with infected animals. Treatment may be obtained from the GP, and children need not be excluded from school once treatment has started.

Slapped Cheek Syndrome

Advice for Schools

This disease, which is also called "Fifth Disease", is caused by a virus called "Parvovirus B19".

Symptoms

The disease is mild, and often associated with a fever. The most characteristic feature in children is a bright red colour on the cheeks - a "slapped face" appearance, followed by a lacy pink rash on the body. School outbreaks are very common, especially in the early spring.

Infections with no symptoms are very common. However in adults, arthritis or joint pains may occur. The virus can cause a chronic anaemia in patients who are immuno-suppressed, or who have sickle cell anaemia or thalassaemia. Rarely, it can also cause miscarriages or anaemia in the baby in women who are infected during the first 20 weeks of pregnancy

Spread

The virus spreads mainly from person to person by coughs and sneezes. It is highly infectious with an incubation period of two to three weeks.

Prevention

Prevention is difficult as so many infections occur with no symptoms. *However, if cases do occur in schools, children who are immuno-suppressed or have sickle cell disease, or thalassaemia, and pregnant teachers or mothers should be advised to consult their GP.* A blood test is available to test for immunity to the infection, and the doctor will be able to advise if any further action is needed. During outbreaks in school or day-care settings, pregnant women and the immunosuppressed should be informed of the possible risks of acquiring and transmitting the infection. More than 50% of adults will already have antibodies and will not be at risk of infection. Many other exposed adults will not get the infection, and will not be at risk of complications. Of those pregnant women who do develop infection, 95% will have a normal pregnancy, but their obstetrician should be informed.

Exclusion periods

The virus is most infectious in the period before the rash appears. Once the rash has appeared, the disease is no longer infectious. Hence excluding children from school is *not* appropriate to prevent the spread of infection.

Slapped Cheek Syndrome

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

This is a mild virus infection, which can affect children and adults.

What are the symptoms?

The most striking feature is a bright red rash on the face, which looks like "slapped cheeks", followed by a lacy pink rash all over the body. The illness is very mild, with little or no fever, and there are often no symptoms at all.

Many adults have already got antibodies to this infection, and are immune. Adults who get the infection may get joint pains or arthritis. People with sickle cell anaemia or thalassaemia can become anaemic as a result of the infection. In very rare cases, women who get the infection when they are in the first 20 weeks of pregnancy may have a miscarriage, or the baby may develop anaemia. However, 95% of women who catch this infection during pregnancy do **not** have any problems at all.

How is it spread?

The infection is spread from person to person by coughs and sneezes. The incubation period is two to three weeks.

How can it be prevented?

Prevention is difficult as many infections occur with no symptoms. *Children who have sickle cell anaemia, thalassaemia, or who are immuno-suppressed, and pregnant women, should see their doctor if they have been in contact with this disease. A blood test is available to test for immunity and the doctor will be able to advise if any further action is needed.*

Should children stay away from school?

By the time the rash has appeared, the person is no longer infectious. For this reason children with the infection do not need to stay away from school.

2.2 DIARRHOEA AND VOMITING

Diseases causing Diarrhoea (Gastroenteric Diseases)

Advice for Schools

Although diarrhoea can be caused by many agents, both infective (i.e. bacteria, viruses) and chemical, it is often not possible to tell what the cause of diarrhoea is without carrying out special laboratory tests, therefore all cases of diarrhoea should be treated as infective until proved otherwise.

Symptoms

Diarrhoea is actually a symptom and not a disease. A useful working definition of diarrhoea is the passage of more than one abnormally loose stool. The diarrhoea can vary in severity and can also be associated with other symptoms such as fever, vomiting and abdominal pain, depending upon the underlying cause.

Spread

Diseases causing diarrhoea pass from the intestinal tract (gut) of one person to another. The germs causing diarrhoea are excreted in the faeces of those with the illness and, if the standard of hygiene is poor, can be spread to other places (taps, other people, etc.) on their hands. The germs can then enter the mouths of those not infected, usually on their hands, thereby spreading the illness. This is called 'hand to mouth' or "faeco-oral" spread. These diseases can sometimes be spread by eating or drinking contaminated food or water.

Prevention

Good hygiene is the mainstay of the prevention of diarrhoeal diseases as they can spread rapidly and it is not always easy to identify cases early enough to stop them spreading their illness to others. If cases of diarrhoea occur in school it is important that meticulous attention is paid to hygiene.

- Children and staff should be informed about the importance of both personal hygiene and of hygienic practices when serving, preparing and eating food. Parents should also be informed about the need for good hygiene at home as these diseases also spread rapidly within the community.
- Both pupils and staff should wash their hands thoroughly with soap and hot water after every visit to the toilet and before handling or eating food, and should dry them on single use paper towels. Young children may need supervision to ensure that adequate hand washing takes place.
- Toilet bowls, seats and flush handles along with any other surfaces that may have been touched by contaminated hands (i.e. door handles, tap handles etc.) should be disinfected daily. A simple solution of a disinfectant at the correct dilution is all that is required.

- The wash hand basins in toilet blocks should not be used for drinking water and the use of communal drinking fountains should be discontinued.

The school nurse should be made aware of the occurrence of more than one case of diarrhoea in any particular class, or 3 or more in school.

Exclusion Periods

To help prevent the spread of diarrhoea within schools all children with diarrhoea should be excluded until **48 hours after the diarrhoea has stopped**. The contacts of those with diarrhoea do not usually need to be excluded provided they are well and have normal stools, as they present only a very small risk of spreading diarrhoea. The chief exception to this is in the case of E.Coli 0157 infection, where contacts of cases must be excluded until they have produced two negative stool samples.

Certain groups of people pose an increased risk of spreading diarrhoeal diseases and may require more strict control. These 'high risk' groups are: -

- Those whose work involves handling food
- Nursery school and health care staff
- Children aged up to 7 years attending nursery and infant schools
- Older children and adults unable to maintain a good standard of personal hygiene.

Further advice on these groups can be obtained from Public Health England - South Yorkshire Team.

If a child is sent home or is absent with diarrhoea it is important that the school is made aware of the precise diagnosis. Once this is known as it will help in deciding upon the necessary control measures.

Diseases causing Diarrhoea (Gastroenteric Diseases)

Advice for Parents

Dear Parent

Please read this information carefully.

Although diarrhoea can be caused by many agents, both infective (i.e. bacteria, viruses) and chemical, it is often not possible to tell what the cause of diarrhoea is without carrying out special tests, therefore all cases of diarrhoea should be treated as infective until proved otherwise.

What is diarrhoea?

Diarrhoea is actually a symptom and not a disease. By diarrhoea we mean the stools are abnormally loose and frequent. The diarrhoea can vary in severity and there may be other symptoms such as fever, vomiting and abdominal pain, depending upon the underlying cause.

How is it spread?

Germs causing diarrhoea pass from the gut of one person to another. The germs causing diarrhoea are excreted in the stools of people with the illness and if the standard of hygiene is poor the germs can be spread to other places (taps, other people, etc.). Other people then pick up the germs on their hands, and by putting their fingers in their mouths, or by handling food, the germs enter their mouth and they become infected. This type of spread is described as "hand to mouth". These diseases can sometimes be spread by eating or drinking contaminated food or water.

How can they be prevented?

Good hygiene is the most important way to prevent these diseases. It is necessary to practice good hygiene at all times as diarrhoeal disease can spread rapidly and it is not always easy to identify cases early enough to stop them spreading their illness to others.

- Children should be taught about the importance of both personal hygiene and of hygienic practices when serving, preparing and eating food. Good hygiene is especially important at home as these diseases also spread rapidly within the community.
- Everyone should wash their hands thoroughly with soap and hot water after every visit to the toilet and before handling or eating food. Young children will probably need help to make sure their hands are properly washed.
- Toilet bowls, seats and flush handles along with any other surfaces that may have been touched by contaminated hands (i.e. door handles, taps etc.) should be disinfected daily. A simple solution of a disinfectant at the correct dilution is all that is required.

Should children stay away from school?

To help prevent the spread of infection within schools all children with diarrhoea should stay away from school until **48 hours after the diarrhoea has stopped**. The contacts of people with diarrhoea do not usually need to stay away provided they are well and have normal stools.

If your child develops or is sent home with diarrhoea, it is important to tell the school the exact diagnosis once this is known, as it will help in deciding whether any further action is necessary.

Norovirus – “Winter Vomiting Disease”

Advice for Schools

Norovirus is the most common cause of infectious gastroenteritis in England and Wales. Although relatively mild, norovirus illness can occur at any age because immunity to it is not long-lasting. The disease was historically known as 'winter vomiting disease' due to its seasonality and typical symptoms.

Incubation period

Usually 24 to 48 hours.

Symptoms

Symptoms will start with the sudden onset of nausea followed by projectile vomiting and watery diarrhoea. Some people may have a raised temperature, headaches and aching limbs. The illness is self-limiting and the symptoms will last for 12 to 60 hours. Most people make a full recovery within 1-2 days. However some people (usually the very young or elderly) may become very dehydrated and require hospital treatment.

Infectivity

The infective dose is extremely low.
Infectivity lasts for 48 hours after symptoms have ceased.

Spread

Noroviruses are found in the stool and vomit of infected people. People can become infected with the virus in several ways:

- eating food or drinking liquids that are contaminated with norovirus
- touching surfaces or objects contaminated with norovirus (e.g. toilets, taps, flush handles, door handles), and then placing their hand in their mouth
- having direct contact with another person who is infected and showing symptoms (for example, when caring for someone with illness, or sharing foods or eating utensils with someone who is ill)

Illness can result from contact with a very small dose of virus e.g. invisible particles contaminating the area surrounding a vomiting incident.

Why does Norovirus often cause outbreaks?

Norovirus often causes outbreaks because it is easily spread from one person to another and the virus is able to survive in the environment for many days. Outbreaks can be difficult to control and long-lasting. Because there are many different strains of Norovirus, and immunity is short-lived, outbreaks tend to affect more than 50% of susceptible people. Any semi-closed environment where large numbers of people congregate for periods of several days (e.g. schools, care homes, cruise ships, hospitals) provides an ideal environment for the spread of the disease.

Prevention of an outbreak

The same principles apply as for other diseases involving vomiting and/or diarrhoea: Good hygiene is the mainstay of the prevention as vomiting/diarrhoeal diseases can spread rapidly and it is not always easy to identify cases early enough to stop them spreading their illness to others. If cases of diarrhoea and/or vomiting occur in school it is important that meticulous attention is paid to hygiene.

Vomiting causes widespread contamination of the surrounding area (clothing, furniture, flooring, doors and handles, items like pencils or other equipment nearby) through spraying of particles too small to be seen by the naked eye. Anything potentially contaminated needs thorough cleaning with hot soapy water.

- Children and staff should be informed about the importance of both personal hygiene and of hygienic practices when serving, preparing and eating food. Parents should also be informed about the need for good hygiene at home as these diseases also spread rapidly within the community.
- Both pupils and staff should wash their hands thoroughly with soap and hot water after every visit to the toilet and before handling or eating food, and should dry them on single use paper towels. Young children may need supervision to ensure that adequate hand washing takes place. An adequate supply of toilet paper, soap and paper towels should be available in school toilets at all times.
- Toilet bowls, seats and flush handles along with any other surfaces that may have been touched by contaminated hands (i.e. door handles, tap handles etc.) should be disinfected daily. A simple solution of a disinfectant at the correct dilution is all that is required.
- The wash hand basins in toilet blocks should not be used for drinking water and the use of communal drinking fountains should be discontinued.

An outbreak situation

The school nurse should be made aware of the occurrence of more than one case of diarrhoea in any particular class, or 3 or more in school. This situation would be regarded as an outbreak. It is important that any outbreak is responded to quickly. Public Health England – South Yorkshire Team should be contacted for help and advice.

Exclusion periods

Those who have been infected should be excluded for up to **48 hours after their symptoms have ceased**.

Treatment

Like all viral infections, norovirus does not respond to treatment with antibiotics. There is no specific treatment for norovirus apart from letting the illness run its course. It is important to drink plenty of fluids to prevent dehydration.

Norovirus – “Winter Vomiting Disease”

Advice for parents

What are noroviruses?

Noroviruses are a group of viruses that cause “stomach flu,” or vomiting and diarrhoea in people. Like all viral infections, noroviruses are not affected by treatment with antibiotics, and cannot grow outside of a person’s body. The amount of norovirus needed to become unwell with vomiting and diarrhoea is extremely small, making it very easy to transmit illness from person to person.

Symptoms

The symptoms are nausea, vomiting, which is often sudden and “projectile”, diarrhoea and sometimes both. Some people may have a raised temperature, chills, stomach cramps, headaches and aching limbs. The illness often begins suddenly, and the infected person may feel very sick. Norovirus affects people of all ages. In general, children experience more vomiting than adults.

When do symptoms appear?

Symptoms of norovirus illness usually begin about 24 to 48 hours after contact with the virus, but they can appear as early as 12 hours after exposure.

Are noroviruses contagious?

Noroviruses are very contagious and can spread easily from person to person. Both stool and vomit are infectious. Particular care should be taken with young children in nappies who have diarrhoea.

How do people become infected with noroviruses?

Noroviruses are found in the stool or vomit of infected people. Anyone can become infected with these viruses. There are many different strains of norovirus, which makes it difficult for a person’s body to develop long-lasting immunity. Therefore, norovirus illness can recur throughout a person’s lifetime. People can become infected with the virus in several ways:

- eating food or drinking liquids that are contaminated with norovirus
- touching surfaces or objects contaminated with norovirus (e.g. toilets, taps, flush handles, door handles, furniture) and then placing their hand in their mouth
- having direct contact with another person who is infected and showing symptoms (for example, when caring for someone with illness, or sharing foods or eating utensils with someone who is ill)

How long will my child be contagious for?

48 hours after symptoms have gone away.

How serious is norovirus disease?

People may feel very sick and vomit many times a day, but most people get better within 1 or 2 days, and they have no long-term health effects related to their illness.

How long does my child need to be excluded from school?

Children who have been infected should not go to school for 48 hours after their symptoms have gone away.

What treatment is available for people with norovirus infection?

Norovirus infection cannot be treated with antibiotics. This is because antibiotics work to fight bacteria and not viruses. There is no specific treatment for norovirus apart from letting the illness run its course. It is important to offer plenty of drinks (water, dilute fruit juice) to your child to prevent dehydration.

Can norovirus infections be prevented?

You can decrease your chance of coming in contact with noroviruses by following these preventive steps:

- Frequently wash your hands, especially after toilet visits and changing nappies and before eating or preparing food
- Carefully wash fruits and vegetables
- Thoroughly clean contaminated surfaces immediately after an episode of illness, with hot soapy water, remembering that vomiting sprays infectious particles too small to be seen by the naked eye over a wide area
- Immediately remove and wash clothing or linens that may be contaminated with virus after an episode of illness (use hot water and soap)
- Flush or discard any vomit and/or stool in the toilet and make sure that the surrounding area is kept clean
- Should you (parent/carer) become unwell with diarrhoea and/or vomiting, you should not prepare food while you have symptoms and for 48 hours after you recover from illness. Food that may have been contaminated by an ill person should be disposed of.

Dysentery

Advice for Schools

What is Dysentery?

Dysentery is the name given to acute watery diarrhoea caused by infection with the bacterium *Shigella sonnei*.

Symptoms

Dysentery starts with the sudden onset of diarrhoea, which may contain blood, pus or mucus, associated with fever, nausea, vomiting and abdominal pain. The illness usually lasts 4-7 days.

Spread

Dysentery is highly infectious. Only 10-100 organisms are needed to spread the disease. It spreads from person-to-person by hand to mouth (the faeco-oral route) by direct contact or via contaminated taps, door handles etc. People whose stools have returned to normal pose minimal risk to other people provided their hand hygiene is good.

Prevention

The most important control measures are thorough hand washing after using the toilet, and regular cleaning of the toilet areas in schools. Younger children should be supervised while hand washing, and in the event of an outbreak, extra cleaning of the toilets may be necessary.

Further detailed information is available from Public Health England – South Yorkshire Unit

Exclusion Period

Children with dysentery should be excluded from school until they have had normal stools for 48 hours. Further exclusion may be required for some children until they are no longer excreting virus. Contacts of cases do not need to be excluded.

Dysentery

Advice for Parents

Dear Parent

Please read the following information carefully.

What is Dysentery?

Dysentery is the name given to the diarrhoea that is caused by infection with the germ Shigella.

What are the symptoms?

Dysentery starts with the sudden onset of diarrhoea. The stools may have blood, mucus or pus in them, and there may be fever, feeling sick, vomiting, and stomach pains. The illness usually lasts about 4-7 days.

How is it spread?

Dysentery is highly infectious. It spreads very easily from person to person directly from hand to hand or indirectly by touching contaminated surfaces such as taps, or door handles.

How can it be prevented?

The most effective way to prevent the spread of dysentery is to make sure hands are washed very thoroughly after using the toilet and before eating meals. Young children will probably need help to make sure their hands are properly washed. If your child has dysentery you can help to prevent spread to other family members by regularly wiping down taps, door and flush handles with a disinfectant solution.

Should children stay away from school?

Children should stay away from school while they have diarrhoea. They may go back to school once they have had normal stools for 48 hours. Further exclusion may be required for some children until they are no longer excreting virus.

Contacts of cases should go to school as normal.

Information for Headteachers

Guidelines for the control of Dysentery

What is Dysentery?

The term dysentery usually refers to the passage of watery diarrhoea containing blood and pus, caused by infection with organisms in the *Shigella* group. In the United Kingdom, the most severe form of dysentery is quite rare, and is usually imported following foreign travel.

However, infection with *Shigella Sonnei* is common. It is most commonly associated with mild and transient diarrhoea, with little systemic illness. Two thirds of the cases occur in children under ten years of age.

How is it spread?

The mode of spread is by the faeco-oral route, by direct contact from person to person. It appears that intermediate modes of transmission by contaminated objects outside the toilet (e.g. toys) play only a small part in transmission. Spread by food and water is uncommon.

The risk of transmission of the organism is directly related to the degree of exposure to liquid, infected stool. The ingestion of very few organisms (10-100) is sufficient to pass on the infection, and hence the disease is highly infectious.

Who is most at risk of catching it?

Those most at risk of developing dysentery are pre-school, nursery and infant children, and anyone who has difficulty in maintaining normal hygiene, for reasons of age or learning disabilities. These groups are also those who are most likely to act as a source of infection for others.

Following infection with *S. Sonnei*, it is common for individuals to continue to excrete the organism, although they rapidly become asymptomatic. Provided that these people maintain good standards of hygiene, the risk of transmitting the infection to others is minimal. Individuals who are unable to maintain good hygiene standards pose a greater risk of transmitting the infection.

How is it controlled?

The most important control measures are the provision of toilet paper and the thorough washing of hands after using the toilet and before eating meals. Hot water and soap should be available in all toilet areas. Single use paper towels or a hot air dryer are the preferred options for hand drying. A single roller towel for communal use is bad practice, and should be discouraged, particularly in outbreak situations.

Handwashing by children in infant schools and nurseries should be supervised routinely, and this is particularly important during outbreaks.

Regular cleaning of the toilet areas in schools is important to break the chain of transmission. Toilets, washhand basins, taps, door handles, flush handles etc. should be wiped down with a disinfectant solution at least once a day under normal circumstances. In an outbreak situation, toilet cleaning two or three times a day may be indicated, between the times of maximum use (i.e. after morning break, after lunch and at the end of the school day). A separate information sheet for distribution to school cleaning staff is provided on Page 35.

In nurseries, where children in nappies are cared for, carers should pay meticulous attention to hand washing after changing nappies, and the changing areas should be frequently and thoroughly cleaned.

The closure of schools and nurseries to control outbreaks of *S. Sonnei* is rarely indicated, and may, in fact, increase transmission in the community. However, EHO's should inspect the premises and ensure that adequate toilet facilities and environmental cleansing routines are in use.

Further information

Public Health England - South Yorkshire Team will provide information on prevention and control measures for teachers, ancillary staff, school nurses, GP's and parents. All schools and nurseries are advised to develop a formal written policy for the regular and frequent cleaning of toilet areas and nappy changing areas, and for the management of environmental contamination, should it occur.

The most important control measures are thorough hand washing after use of the toilet and before meals, and the exclusion from work or school of cases until they are symptom free and have formed stools. The PHLS Working Group on Dysentery has recommended that control measures should be based on establishing high standards of hygiene in schools and nurseries, and effective measures to deal with children who become ill at school. They emphasise that exclusion policies based on microbiological screening and clearance are difficult to enforce and less effective as control measures, as compliance may be a problem.

Recommendations For The Cleaning Of School Toilets During An Outbreak of Dysentery or E.Coli 0157

Dysentery and E. coli 0157 are infections causing fever, vomiting and diarrhoea. The bacteria that cause these diseases spread very easily, particularly among young children. The reason they are so highly infectious is because only very tiny numbers of bacteria are needed to spread the infection. The bacteria spread from bottoms to hands of cases, and then to the hands of other people often by touching contaminated surfaces, and thence to their mouths.

The two most important ways to prevent the spread of dysentery and E. coli 0157 are therefore: -

- to ensure that everyone washes their hands very thoroughly with soap and hot water, after every visit to the toilet, and before eating meals.
- to ensure that all the surfaces within the toilet area are kept scrupulously clean.

The following notes offer additional guidance to those responsible for cleaning the toilet areas in schools.

1. At least once a day, and whenever fouling of the toilet pan is noticed, clean the toilet bowl with full strength disinfectant/toilet cleaner, and leave to soak for the recommended time.
2. As frequently as possible, all surfaces likely to be handled should be wiped over with a disinfectant solution. In an outbreak situation, this should be at least three times a day i.e. after morning break, after the lunch break, and after school ends.
3. Please ensure that it is a disinfectant that is being used, and that it is diluted as recommended in the product instructions.
4. Always check the product label for health and safety information. It is recommended that rubber gloves should be worn.
5. Start wiping down at the "clean end", i.e. the entrance door, towel dispenser, hand dryer, soap dispenser, basins, taps etc. Regular rinsing and recharging of the cloth and disinfectant solution is essential, and it is recommended that cloths should be disposable and used once only. Failing this, wiping cloths should be soaked in disinfectant solution between uses.
6. Then concentrate on the WC cubicles, door handles, hand plates, toilet paper dispenser, cistern handle/chain pull. Then wipe over the toilet seat and rim of the bowl. Finally dispose of or disinfect the wiping cloth and rubber gloves.
7. Do not forget to wash your own hands afterwards, even though you have worn rubber gloves.
8. Please ensure that supplies of toilet paper, soap and paper towels are kept up.

2.3 RESPIRATORY ILLNESS

Common Cold

Advice for Schools

What is it?

The common cold is caused by a number of viruses, especially the rhinoviruses.

Symptoms

The usual symptoms are malaise, irritation of the nose and throat and catarrh. It is sometimes accompanied or followed by ear or chest infections. Colds are most common in the autumn and winter and most people have between 1 and 6 colds each year.

Spread

Colds are easily spread from person to person by coughs and sneezes. They spread rapidly within families and schools where there are many people in close proximity. The infective period is from 24 hours before until 5 days after symptoms begin.

Prevention

There are no specific treatments but there are many proprietary preparations available from pharmacists to ease the symptoms. There is no immunisation against the common cold.

Exclusion Period

Children with a cold should be excluded from school only if feverish and/or feeling miserable. Contacts of such children should go to school as normal.

Common Cold

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

The common cold is caused by a number of viruses.

What are the symptoms?

The usual symptoms are feeling poorly, irritation of the nose and throat and catarrh. It is sometimes accompanied or followed by ear or chest infections. Colds are most common in the autumn and winter and most people have between 1 and 6 colds each year.

How is it spread?

Colds are easily spread from person to person by coughs and sneezes. They spread rapidly within families and schools where there are many people close together. Colds can be passed on to other people.

How can it be prevented?

There are no specific treatments but there are many cold remedies available from pharmacists to ease the symptoms. There is no immunisation against the common cold.

Should children stay away from school?

Children with a cold should stay away from school only if feverish and/or feeling miserable. Contacts of such children should go to school as normal.

Diphtheria

Advice for Schools

What is it?

Diphtheria is a serious disease caused by a germ called *Corynebacterium Diphtheriae*, which affects the tonsils, throat and nasal passages. It is nowadays very rare. In 1990 there were only 2 cases notified in the whole of England and Wales, neither of which were fatal. However it is still common abroad, such as the current epidemic in Russia. Cases or suspected cases should be notified immediately to Public Health England – South Yorkshire Team.

Symptoms

The usual symptoms are a sore throat and swollen tonsils, which are covered with a characteristic grey membrane. The swelling of the throat can be so severe (particularly in young children) that breathing difficulties can occur. The bacteria causing diphtheria also produce a toxin which may spread through the bloodstream and cause permanent damage to the heart and nervous system.

Spread

Diphtheria is spread from person to person by coughs and sneezes. Contact must be close, as in the classroom or home, for spread to occur. Most infected children have no symptoms at all but can still pass the disease to others.

Prevention

By far the most effective way to prevent Diphtheria is to immunise all children against it as part of the routine schedule of childhood immunisation. Diphtheria was a major killer of children prior to 1942, but as a result of widespread immunisation it is now rare in the UK. School entry is a useful time to review the immunisation history of new pupils and to offer any injections required for completing the programme. Diphtheria toxoid is now offered to all pupils as part of the school leaving booster immunisation.

Those with clinical diphtheria require treatment and will usually be admitted to hospital. Close contacts (in the same class at school or living in the same house as a case) should remain at home where they will be observed for 7 days for the symptoms of diphtheria. They will be given antibiotic treatment and either a full course or a single reinforcing dose of Diphtheria vaccine depending upon their age and previous immunisation history. Other contacts will be given either a full course or a single reinforcing dose of 'vaccine' according to their age and previous immunisation history.

Public Health England - South Yorkshire Team will be responsible for the identification and classification of contacts and the co-ordination of the action required. All queries should be directed to them.

Most commonly nowadays, the diphtheria bacterium can cause a sore throat rather than invasive diphtheria. People with this condition will be treated with a course of antibiotics, but no further action will be required.

Exclusion periods

Cases of diphtheria should be kept off school until they have recovered and 3 consecutive nasal and throat swabs taken on different days following the completion of treatment are negative. Close contacts should be kept off school until 3 consecutive nasal and throat swabs taken on different days following the completion of antibiotic treatment are negative. All other contacts do not require exclusion. Contacts of people with a sore throat caused by the diphtheria germ do not need to be excluded from school.

Diphtheria

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

Diphtheria is a disease caused by a germ that affects the tonsils, throat and nose. Although it is a serious condition it is fortunately very rare, and there have been no cases in South Yorkshire for several years.

What are the symptoms?

The usual symptoms are a sore throat and swollen tonsils, which are covered with a grey membrane. The swelling of the throat can cause breathing difficulties, particularly in young children. The germ causing diphtheria also produces a substance called a "toxin", which can spread through the bloodstream and cause damage to the heart and nervous system.

How is it spread?

Diphtheria is spread from person to person by sneezes or coughs from close contact with people with the infection.

How can it be prevented?

By far the most effective way to prevent cases of diphtheria is to immunise all children against it as part of the routine programme of childhood immunisation.

Once a case has occurred it is important to protect those who have been in contact with this case. Close contacts need to remain at home for 7 days and require treatment with antibiotics and further immunisation against diphtheria. Other more casual contacts will need further immunisation against diphtheria but need not have their activities restricted in any way.

The present situation has been looked at and both close and casual contacts have been identified and informed. If you are contacted follow the instructions given to you carefully. If you are not contacted you will not require treatment, your child and your family do not require the antibiotic and you and your children should carry on life as normal.

What should you do?

If you or your children have not been immunised against diphtheria we strongly advise you to contact your GP and have this carried out.

It is important that you remain alert to any illness that may develop in your family particularly if the symptoms look like those mentioned above. If you are worried you should contact your family doctor (GP).

Influenza ('Flu)

Advice for Schools

What is it?

Influenza (or 'flu) is caused by various strains of the influenza virus.

Symptoms

The usual symptoms are fever, headache, aching muscles, prostration, sore throat and cough. Nausea, vomiting and diarrhoea can occur, especially in children. It is sometimes accompanied or followed by chest infections that can be severe. It often occurs in epidemics, predominantly during the winter months, which can be associated with many deaths, particularly in elderly people. 'Flu is generally a milder illness in children, although the attack rate may be very high.

Spread

Influenza is spread from person to person by coughs and sneezes. The infective period is from 3 to 5 days after symptoms begin.

It can spread rapidly within families and schools where there are many people in close proximity: in some outbreaks of flu, hundreds of pupils have been absent from school at the same time.

Prevention

There are no specific treatments but there are many proprietary preparations available from pharmacists to ease the symptoms. Preparations containing aspirin should **not** be used.

Each year vaccine against the likely common types of the virus is prepared and should be given to all people, particularly the elderly with chronic heart, chest or kidney diseases and pregnant women.

There is an immunisation programme in place for healthy children.

Exclusion Period

Children and staff with 'flu need not be excluded from school once they are well. Contacts should go to school as normal.

Influenza ('Flu)

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

'Flu (or influenza) is caused by various strains of the influenza virus.

What are the symptoms?

The usual symptoms are fever, headache, muscle aches, severe tiredness, sore throat and cough. Sickness and diarrhoea can occur, especially in children. It is sometimes accompanied or followed by chest infections that can be severe, however it is generally a milder illness in children. It often occurs in epidemics, most commonly in the winter,

How is it spread?

'Flu is spread from person to person by coughs and sneezes. It can spread rapidly within families and schools where there are many people living close together. 'Flu can be passed on to other people for 3-5 days after symptoms start.

How can it be prevented?

There are no specific treatments but there are many remedies available from pharmacists to ease the symptoms. Children should **NOT** be given any preparations containing aspirin. If you are in any doubt about the contents of a 'flu remedy, please check with the Pharmacist.

Each year vaccine against the likely common types of the virus is prepared and should be given to all people, particularly the elderly with chronic heart, chest or kidney diseases and pregnant women.

There is an immunisation programme in place for healthy children.

Should children stay away from school?

Children with 'flu should stay away from school until they are better. Contacts of children with 'flu should go to school as normal.

Tuberculosis (TB)

Advice for Schools

What is it?

TB is a disease caused by a bacterium called Mycobacterium Tuberculosis. It can affect any part of the body but most commonly affects the lungs. In the past TB was a common cause of illness and death. Although it is less common today, new cases still occur. Modern treatments mean that most cases of TB are readily curable although the course of treatment is prolonged (6-12 months). Only occasionally does TB cause death.

Symptoms

The early symptoms include tiredness, loss of weight and fever. When pulmonary TB is established the symptoms localise to the chest and include a productive cough (the phlegm may be bloodstained) and chest pain. If other parts of the body are affected there may be other symptoms, which will depend upon the areas affected.

Spread

As a rule, TB is not very infectious. Only people with a productive cough or a discharging lesion can spread the disease.

The germs causing TB are spread from person to person by coughs and sneezes. These germs settle in the lungs but in 95% of cases, the body's defences overcome the infection and the person does not become ill. However the germs remain in the lungs and may reactivate or flare up later in life. In 5% of people who are infected, the infection progresses to become active TB.

Most children with active TB are not infectious to other people. However, as they reach adolescence, they are more likely to develop "adult type" infectious disease. In general, children are more vulnerable to TB infection than adults, and they are at greater risk of catching TB from an infected adult.

Prevention

All health care staff and those working with children should have pre-employment medical screening to ensure that they are free from TB and that they are protected against it. If there is no history of BCG vaccination it is recommended that staff are Mantoux tested and offered BCG, although this is not obligatory.

The early treatment of TB not only cures the infection but also prevents the spread to others. All close contacts of a case of TB are 'screened' in order to pick up further cases and offer treatment if this is necessary. This will be organised by the Chest Clinic who will decide who needs to be 'screened'. Children may receive preventive treatment for TB if they have been in contact with a case. These children do not have TB and they are not infectious.

Exclusion Periods

The exclusion of people with TB will be decided on a case by case basis, by the Consultant Physician in charge of the case. Usually people with sputum positive TB (those with infectious bacteria in the sputum) will be excluded until they become sputum negative (non-infectious). Those who are sputum negative do not normally need exclusion. The contacts of people with TB do not need to be excluded from school.

If a case of TB occurs in a schoolchild or member of staff, screening of classroom or friendship group contacts may be carried out. The nature, timing and extent of this screening will be determined by Public Health England - South Yorkshire Team, in conjunction with the Chest Physicians, TB Specialist Nurses, and the School Health Service.

Tuberculosis (TB)

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

TB is a disease caused by a bacterium. It can affect any part of the body but most commonly affects the lungs.

What are the symptoms?

The early symptoms are tiredness, loss of weight and fever. When TB affects the lungs a productive cough (the phlegm may be bloodstained) and chest pain develop later in the illness. There may be other symptoms if the disease affects other parts of the body.

How is it spread?

The germs causing TB are spread from person to person by coughs and sneezes.

How is it prevented?

The early treatment of TB not only cures the infection but also prevents the spread to others. All close contacts of a case of TB are 'screened' in order to pick up further cases and offer treatment if this is necessary. This will be organised by the Chest Clinic who will decide who needs to be 'screened'. Children may receive preventive treatment for TB if they have been in contact with a case. These children do not have TB and they are not infectious.

Exclusion form school

People with TB will not be allowed to attend or work in school until their doctor is sure that they are not infectious. Once they are no longer infectious they may safely attend school, even if they are still taking treatment.

Whooping Cough (Pertussis)

Advice for Schools

What is it?

Whooping cough is a highly infectious disease caused by a bacterium called *Bordetella Pertussis*, which involves the respiratory tract. It can affect people of any age but is mainly a disease of childhood, particularly children under 5 years of age. It is an extremely serious illness in babies and infants.

Symptoms

Whooping cough begins as an irritating cough that gets steadily worse over a period of one to two weeks and develops into severe episodes of coughing which may be followed by a characteristic "whooping sound" which may be accompanied by vomiting. The illness lasts for two to three months. In addition to being a very distressing condition, whooping cough can have serious complications, especially in children less than one year old and can kill. Over the age of five years complications are rare and there is usually a full recovery.

Spread

Whooping cough is usually spread from person to person by coughs and sneezes. Children with the illness can pass it to others during the early stage up until about 3 weeks after the severe bouts of coughing have started. Antibiotic treatment may reduce this period of infectivity but only if started early.

Prevention

The only effective way to prevent whooping cough is to immunise all children against it as part of the routine programme of childhood immunisations. Immunisation of older siblings is the only way to protect tiny babies. Previous worries about the harmful effects of immunisation have not been proven by scientific study and the current thinking is that the risks of harm from whooping cough are far greater than any potential harm from the vaccine. Nowadays more than 90% of babies are immunised against pertussis.

Antibiotics may be useful for unvaccinated household contacts especially young children. In the event of an outbreak of whooping cough antibiotic treatment of close contacts may be recommended.

Exclusion periods

Children with whooping cough should be excluded from school or nursery until 21 days after the onset of the episodic coughing if they have not been treated with antibiotics. If treatment has been initiated children need to be excluded for 48 hours from starting antibiotics. The contacts of children with whooping cough do not require exclusion.

Whooping Cough (Pertussis)

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

Whooping cough is a highly infectious disease, which involves the lungs and air passages. It is mainly a disease of childhood, particularly of children under five years of age, but can affect people of any age. It is an extremely serious disease in babies and infants.

What are the symptoms?

The main symptom of whooping cough is an irritating cough, which gets steadily worse over a period of one to two weeks. and develops into severe coughing which may be followed by a distinctive "whooping sound" and may be accompanied by vomiting. The illness lasts for two to three months and is a very distressing and exhausting condition. Although most people with whooping cough make a full recovery from it, whooping cough can have serious complications in those under the age of one year and can kill. Babies and adults seldom "whoop".

How is it spread?

Whooping cough is usually spread from person to person by coughs and sneezes. Children with the illness can pass it to others during the early stage up until about 3 weeks after the severe bouts of coughing have started.

How is it prevented?

The only effective way to prevent whooping cough is to immunise all children against it as part of the routine programme of childhood immunisation. In the past, there have been worries about the possibility of harmful effects following immunisation against whooping cough. However, there is no proof that the vaccine has harmful effects, and nowadays more than 90% of children have the whooping cough vaccine. However, the disease itself can kill children and can also cause long term damage. If your children have not been immunised against whooping cough it is strongly recommended that you ask your GP to do this.

Should children stay away from school?

To help prevent the spread of whooping cough all children with whooping cough should be kept off school for 21 days after the onset of the severe episodes of coughing if they have not been treated with antibiotics. If treatment has been started children should stay away from school for 48 hours from starting antibiotics. The contacts of children with whooping cough do not need to stay away from school.

2.4 OTHER INFECTIONS

Conjunctivitis

Advice for Schools

What is it?

Conjunctivitis (also known as red - or pinkeye or sticky eye) can be caused by a number of bacteria and viruses.

Symptoms

The usual symptoms are watering of the eye, itching, soreness and redness. This may be followed by a yellowish sticky discharge, which is especially troublesome in the mornings. It can last from 2 days to 2 weeks.

Spread

Conjunctivitis is easily spread through contact with the discharges from the infected eye and by the coughs and sneezes of people with the infection. It spreads rapidly within families and where there are poor hygiene measures. Occasionally outbreaks of viral conjunctivitis occur through poorly chlorinated swimming pools - "swimming pool conjunctivitis".

Prevention

Good standards of personal hygiene prevent spread, particularly regular hand washing. Conjunctivitis caused by bacteria may be treated with antibiotic drops or cream. There is no treatment for viral conjunctivitis and there is no immunisation against it.

Exclusion

It is impossible to tell whether conjunctivitis is caused by a bacterial infection or by a virus, and it is therefore difficult to advise on exclusion. However, bacterial infection is more likely to cause a discharge of pus, whereas viral infection is more likely to produce "pink eye". As a practical rule of thumb, children who have sticky eyes should be excluded from school/nursery until the infection has cleared, and the eyes are no longer producing pus. Children with "pink eye" do not need to be excluded, but should an outbreak occur, advice should be sought from Public Health England – South Yorkshire Team.

Contacts of children with the illness should go to school as normal.

Conjunctivitis

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

Conjunctivitis (also known as red - or pinkeye or sticky eye) can be caused by a number of bacteria and viruses.

What are the symptoms?

The usual symptoms are watering of the eye, itching, soreness and redness. This may be followed by a yellowish sticky discharge, which is especially troublesome in the mornings. It can last from 2 days to 2 weeks.

How is it spread?

Conjunctivitis is easily spread through contact with the discharges from the infected eye and by the coughs and sneezes of people with the infection. It spreads rapidly within families and in situations where hygiene is poor. Occasionally outbreaks of viral conjunctivitis occur through poorly chlorinated swimming pools - "swimming pool conjunctivitis".

How can it be prevented?

Good standards of personal hygiene prevent spread, particularly regular hand washing. Conjunctivitis caused by bacteria may need to be treated with antibiotic drops or cream. There is no treatment for viral conjunctivitis, and there is no immunisation against it.

Should children stay away from school?

Children whose eyes are sticky or producing pus should stay away from school or nursery until the infection has cleared. Children who have "pink eye", but whose eyes are not producing pus do not need to stay away from school or nursery. Contacts of children with the illness should go to school as normal.

Cytomegalovirus (CMV)

Advice for schools

What is it?

Cytomegalovirus is a common virus which can cause a glandular fever like illness and can infect many parts of the body such as the eyes, liver, gut and the nervous system

Who can it affect?

Cytomegalovirus can affect anyone. Between 60% and 90% of adults will have been in contact with the virus and have immunity.

Symptoms

There are usually no symptoms at all, or just a mild fever. Cytomegalovirus can cause more severe infections in vulnerable groups of people such as pregnant women, new born and premature babies and people with weakened immune systems.

To minimise the risk of congenital abnormalities, pregnant women should be informed and discuss with their GP or midwife.

Spread

It is spread by close contact and poor personal hygiene between family members, social and friendship groups. CMV can also be passed on from mother to baby in the mother's womb, during birth and via breast milk. It can also be passed on via mouth kissing and sexual contact.

Prevention

By adopting good hygiene practices and always washing hands thoroughly with hot water and soap;

Before eating food

Before preparing and serving food

After changing a babies nappy

After hands have been contaminated with any body fluid

After going to the toilet

By always cleaning surfaces contaminated with body fluids with household cleansing agents and wearing disposable gloves if possible

Be aware of risks in vulnerable groups and take extra care with hygiene practices, cleaning practices and by adopting safer sexual practices

Exclusion

Children with symptoms should remain absent from school only while they feel unwell

Cytomegalovirus (CMV)

Advice for parents

Dear parent

Please read the following information carefully

What is it?

Cytomegalovirus is a common virus which can cause a glandular fever like illness and can infect many parts of the body such as the eyes, liver, gut and the nervous system

Who can it affect?

Cytomegalovirus can affect anyone. Between 60% and 90% of adults will have been in contact with the virus and have immunity.

Symptoms

There are usually no symptoms at all, or just a mild fever. Cytomegalovirus can cause more severe infections in vulnerable groups of people such as pregnant women, new born and premature babies and people with weakened immune systems.

To minimise the risk of congenital abnormalities, pregnant women should be informed and discuss with their GP or midwife.

Spread

It is spread by close contact and poor personal hygiene between family members, social and friendship groups. CMV can also be passed on from mother to baby in the mother's womb, during birth and via breast milk. It can also be passed on via mouth kissing and sexual contact.

Prevention

By adopting good hygiene practices and always washing hands thoroughly with hot water and soap;

Before eating food

Before preparing and serving food

After changing a babies nappy

After hands have been contaminated with any body fluid

After going to the toilet

By always cleaning surfaces contaminated with body fluids with household cleansing agents and wearing disposable gloves if possible

Be aware of risks in vulnerable groups and take extra care with hygiene practices, cleaning practices and by adopting safer sexual practices

Exclusion

Children with symptoms should remain absent from school only while they feel unwell

Glandular Fever

Advice for Schools

What is it?

Glandular fever (also called mononucleosis) is a viral illness caused by the Epstein-Barr virus.

Symptoms

The usual symptoms are tiredness, fever, sore throat and swollen lymph nodes, particularly in the neck but also in the armpits and groin. Rarely the child may be jaundiced. In young children the disease is generally mild. Once the acute stage has settled, the child can be left with little energy or stamina that can last for several weeks.

Spread

Glandular fever is spread through saliva by the coughs of people with the infection, or by kissing - it is sometimes known as the "kissing disease". Around 15-20% of people with the infection are able to pass it on for many months afterwards.

Prevention

There is no specific treatment for glandular fever and there is no immunisation against it. Good standards of personal hygiene, and reduced exposure to saliva can help prevent spread.

Exclusion Period

Children with the illness should stay off school until they feel well again. There is no specific exclusion period since those infected can remain infectious for a year or more. Contacts of children with the illness should go to school as normal.

Glandular Fever

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

Glandular fever (also called mononucleosis) is a viral illness caused by the Epstein-Barr virus.

What are the symptoms?

The usual symptoms are tiredness, fever and sore throat and swollen tender glands, particularly in the neck but also in the armpit and groin. Rarely the child may be jaundiced. In young children the disease is generally mild. Once the acute stage has settled, the child can be left with little energy or stamina, which can last for several weeks.

How is it spread?

Glandular fever is spread through saliva by the coughs of people with the infection, or by kissing - it is sometimes known as the "kissing disease". Some people with the infection are able to pass it on for many months afterwards.

How can it be prevented?

There is no specific treatment for glandular fever and there is no immunisation against it. Good standards of personal hygiene can help prevent spread.

Should children stay away from school?

Children with the illness should stay off school until they feel well again. All other children should go to school as normal.

Head Lice

Advice for Schools

What is it?

Lice are small parasites that live on the surface of the body. Head lice infest the hair and scalp, and are particularly common among young children (pre-school and infant school). Head lice are not responsible for any illness and are not a public health problem.

Symptoms

Infestation with head lice is often asymptomatic although it may cause intense itching of the scalp. It may be possible to see the eggs of the lice (nits) attached to the hair and occasionally a louse itself may be seen crawling through the hair. The only certain way to diagnose an infestation is by detecting living lice in the hair by wet combing.

Spread

Head lice can easily spread from person to person by direct contact or by contact with personal objects such as hats, clothing, combs and brushes. A person with head lice can spread them to others until they are successfully treated. Although the spread of head lice from person to person occurs mainly outside school, head lice often present in the school setting. However the main responsibility for prevention and control of head lice rests with the parents, who should regularly inspect their children's hair, preferably by weekly wet combing, and treat infestations correctly when and if they occur.

Prevention

If a case is discovered at school the parents of the affected children should be notified discreetly and asked to treat their child without delay. Treatment should be either by the correct use of an appropriate insecticide, available from the GP or local pharmacy, or, if preferred, by wet combing twice weekly until the infestation is cleared. All members of the family should wet comb their hair to identify any live lice, and treat as above if they are found. The routine use of "alert" letters to parents is not recommended as they can cause unnecessary alarm and can lead to unaffected children being treated "just in case".

Exclusion Period

Children with infestation do not need to be excluded from school but they should be treated as soon as possible to minimise transmission to others.

Head Lice Policy

A copy of the full Headlice Control Policy is included in Section 3 of this document.

The School Nurses are very experienced in the management of Head Lice, and they can be contacted by teaching staff and parents for advice and support, particularly where head lice prove difficult to control.

Hepatitis A

Advice for Schools

What is Hepatitis A?

Hepatitis A is a common infection caused by a virus. It sometimes leads to inflammation of the liver and causes a temporary yellow discoloration of the skin known as jaundice.

What causes Hepatitis A?

Hepatitis A is caused by a virus. It is usually passed from person-to-person by 'hand-to-mouth' spread as a result of poor hygiene after defecation. This is the most common method of contracting the infection although contaminated food or drink may sometimes be the cause, for example raw shellfish from contaminated water.

The majority of cases in the UK are 'one-off' although outbreaks involving many people do occur.

The disease varies in severity from a mild illness lasting 1-2 weeks, and rarely to a severely disabling disease lasting several months. Convalescence often takes several weeks. In general, the disease is more severe in adults but complete recovery without problems or recurrences is usual.

What are the symptoms and signs of Hepatitis A?

Many infections occur without symptoms particularly in children; and many infections are mild and without jaundice. Serious complications are very rare.

When symptoms do occur, the onset is usually sudden with fever, malaise, loss of appetite, nausea and abdominal discomfort followed within a few days by jaundice. There are often light coloured faeces and dark urine when a person becomes jaundiced.

What should parents do if they think their child has Hepatitis A?

Parents should contact their family doctor (GP), urgently if the child is very unwell. The GP will usually confirm the diagnosis with a blood test.

How is Hepatitis A treated?

There is no specific treatment for Hepatitis A. Rest is recommended during the acute illness and convalescence is necessary until the patient feels well. Violent exercise is best avoided for 6 months and alcohol for one year.

Should a child with Hepatitis be excluded from school?

Cases of hepatitis A infection should be excluded from school until 7 days after onset of jaundice or until 7 days after onset of symptoms, or until clinically recovered. Exclusion of *contacts* of cases from school is *not* usually justified.

What can be done to prevent Hepatitis A?

Preventive measures

The key preventive measure is *education* about good personal hygiene, with special emphasis on sanitary disposal of faeces and careful hand washing.

Control of the infection is difficult because people with Hepatitis A are usually most infectious for a week or two before diagnosis is made until a week after onset of jaundice. Spread of hepatitis A is reduced by simple hygienic measures particularly thorough hand washing and the sanitary disposal of faeces. Most cases are non-infectious after the first week of jaundice. Exclusion from school, therefore, should be until 7 days after onset of jaundice (or 7 days after onset of symptoms if no jaundice)

An injection of Hepatitis A vaccine given intramuscularly to contacts of cases before exposure to the virus or soon after exposure will prevent or lessen the impact of the illness. Vaccination should be offered to all relevant close contacts presenting within 14 days of exposure.

Control of contacts

In the event of an outbreak the Public Health England - South Yorkshire Team, will advise about any specific control measures necessary including immunisation of staff and pupils if necessary.

Hepatitis A

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

Hepatitis A is a common infection caused by a virus. It sometimes leads to inflammation of the liver and causes a temporary yellow discoloration of the skin known as jaundice.

What are the symptoms?

Many infections occur without symptoms particularly in children; and many infections are mild and without jaundice. Serious complications are very rare.

When symptoms do occur, the onset is usually sudden with fever, tiredness, loss of appetite, feeling sick and abdominal discomfort followed within a few days by jaundice. When a person becomes jaundiced they often develop light coloured stools and dark urine.

How is it spread?

Hepatitis A is caused by a virus. It is usually passed from person-to-person by "hand-to-mouth" spread as a result of poor hygiene after using the toilet.

How can it be prevented?

Control of infection is difficult because people with Hepatitis A are usually most infectious for a week or two before symptoms appear until a week after the onset of jaundice. Spread of Hepatitis A is reduced by simple hygienic measures particularly thorough hand washing after using the toilet.

An injection of Hepatitis A Vaccine given to contacts of cases soon after exposure to the virus will prevent or reduce the severity of the illness.

Should children stay away from school?

Children with hepatitis A infection should stay away from school until 7 days after onset of jaundice (or onset of symptoms if not jaundiced) or until they are well. Contacts of cases should only stay away from school if they have symptoms, and they should see the GP. Other contacts of cases should go to school as normal.

Hepatitis B

Advice for Schools

What is it?

Hepatitis B is a virus infection, which causes inflammation of the liver. It is **very rare** in children.

Symptoms

Hepatitis B infection starts slowly with the onset of loss of appetite, vague abdominal discomfort, nausea and vomiting, and often jaundice. Fever may be mild or absent. The disease may be very mild or may cause severe liver damage, liver cirrhosis and even death. Some people who become infected may not show symptoms for many years, but carry the virus in their blood.

Spread

Hepatitis B spreads from person to person through exposure to infected blood, saliva, or body secretions such as semen. The most common modes of spread are by using infected needles for injecting drugs, or by sexual intercourse. A woman who develops hepatitis B during pregnancy may pass the infection onto her unborn child.

Prevention

Hepatitis B is only likely to be seen in children of infected mothers. If these mothers are identified in pregnancy, the child may be protected by vaccination at birth. Hepatitis B can be spread by the bites of carriers of the disease, and residents and staff of long stay institutions for people with learning disabilities have a higher incidence than the general population of hepatitis B. Children with learning disabilities in mainstream education, who have never been in residential care, are no more at risk of hepatitis B than any other child.

People at high risk of contracting hepatitis B through their occupation may be protected by hepatitis B vaccine. Vaccination of school staff may be considered if a child at school is known to be a carrier of hepatitis B, and regularly bites. Under normal circumstances school staff are not at high risk of contracting hepatitis B.

Within the school setting staff should ensure that appropriate protective clothing (gloves and preferably plastic apron) is used when dealing with bleeding incidents.

Exclusion period

In the unlikely event of a child developing hepatitis B the doctor in charge of the case will decide when the child is fit to return to school. Contacts of the case do not need exclusion.

H.I.V. and A.I.D.S.

Advice for Schools

What is it?

AIDS (Acquired Immune Deficiency Syndrome) is the long-term consequence of infection with HIV, Human Immunodeficiency Virus. When a person is infected with HIV they are said to be "HIV positive". A person is usually HIV positive for many years before symptoms of AIDS appear.

Symptoms

A person who is HIV positive may have no symptoms at all. As the illness progresses they may develop symptoms of infection, as their immune system becomes weaker. Eventually they may develop one of the "indicator" diseases, which signify that their HIV infection has reached an advanced stage which is described as AIDS. These indicator diseases include tuberculosis, unusual infections and some unusual cancers.

Spread

HIV infection spreads from person to person through infected blood entering the body or by sexual intercourse. Infected children usually acquire HIV from their HIV positive mother during pregnancy, birth or breastfeeding. However, in the UK less than 1 in a hundred babies will become infected this way if their HIV positive mother receives appropriate healthcare during pregnancy. At the moment there are very few HIV positive children in the UK.

In this country, the majority of people who are HIV positive are heterosexual men and women. Men who have sex with men and people who were born in countries where HIV is more common (particularly sub-Saharan Africa) are disproportionately affected by HIV. Only 2% of HIV infections in the UK are caused by injecting drugs. You cannot breathe in the infection and HIV is **not** passed on through normal social contact, including:

- through unbroken, healthy skin (even if it does come into contact with infected blood)
- kissing or giving mouth to mouth resuscitation
- sharing cups, plates, cutlery or linen, such as towels
- using the same toilets and swimming pools.
- caring for someone with HIV

Prevention

There is no cure at present for HIV infection but highly successful treatment is widely available in the UK and many individuals will lead near normal lives. To prevent infection, sex education is of paramount importance because sexual transmission is the predominant mode of spread and condoms prevent infection. Children should be taught the dangers of intravenous drug use, particularly the risk of using shared needles, syringes and other injecting equipment. Within the school setting staff should ensure that appropriate protective clothing (gloves and preferably a plastic apron) is used when dealing with bleeding incidents.

Exclusion Period

Children who are HIV positive should not be excluded from school. If their disease advances to a stage where their immune deficiency renders them particularly vulnerable to infection, their parents should be warned of any infectious disease that occurs in the school, just as for any other child with immunosuppression.

A useful source of information is: HIV in Schools. Good practice guide to supporting children infected or affected by HIV. Magda Conway available at http://www.ncb.org.uk/dotpdf/open%20access%20-%20phase%201%20only/hivforum_schoolsgpg.pdf

Meningococcal Disease

Advice to Schools

What is it?

Meningitis is an inflammation of the soft tissues that surround the brain. It is caused by infection with either viruses or bacteria. Viral meningitis is the most common and the disease is usually mild. Bacterial meningitis may be caused by a number of different germs, but the most common in children is *Neisseria Meningitidis*, often called the Meningococcus. In many cases, the germ causes a generalised blood poisoning called “septicaemia” rather than meningitis, and the term “invasive meningococcal disease” is used to describe the whole spectrum of illness caused by this germ.

Symptoms

Meningitis may begin very suddenly, but there is usually the gradual onset of fever, a very severe headache, stiff neck, vomiting, discomfort caused by bright lights, and drowsiness. Septicaemia usually starts with flu like symptoms, muscle pains and a purplish rash. Not all of these symptoms need to be present.

Spread

The meningococcus bacterium is carried in the throat of 5-10% of the population. It is spread from person to person by coughs and sneezes. However, very close contact is needed for the germ to infect another person, so the disease is NOT very infectious.

Prevention

Very close contacts of a case of meningococcal disease are given antibiotics to prevent them from developing the disease, and spreading the infection to others. For most children these close contacts will be their own family. Children in the same class at school, nursery or playgroup are not usually given antibiotics. If more than one case occurs in a class, then the wider use of antibiotics will be considered.

For certain types of meningococcal infection, contacts will be offered immunisation. This will be arranged by the Public Health England – South Yorkshire Team. However, most children have now been vaccinated against Group C Meningitis.

It is important to keep parents informed that there has been a case of meningococcal disease in a school, to increase their vigilance in case their child should become ill, and a letter will be provided by the Public Health England – South Yorkshire Team for circulation to parents.

Guidelines for the control of Invasive Meningococcal Disease should be available to every school nurse, and should be consulted for more detailed information.

Exclusion Period

Children with meningococcal disease will be too ill to go to school. Contacts of cases do not need to be excluded. Siblings of a case who have been treated with antibiotics are NOT carriers of the infection and may attend school.

See the Information sheet for Headteachers below for more detailed information. For more in depth discussion if there has been a case of meningococcal disease in your school, please contact Public Health England - South Yorkshire Team directly.

Meningitis

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

Meningitis is an inflammation of the soft tissues around the brain. It can be caused by viruses or bacteria. Viral meningitis is the most common, and it is usually mild. Bacterial meningitis can be caused by a number of germs. The most well known is the Meningococcus, which causes Meningococcal Meningitis.

What are the symptoms?

Children usually become ill gradually, over one to two days, but some children can become ill over just a few hours. Most children will have a fever and a severe headache. They may have a stiff neck, dislike of bright lights, vomiting and drowsiness and they may develop a purple rash.

How is it spread?

The meningitis germ spreads from person to person by coughs and sneezes. It is not very infectious, and very close contact is needed with a case before there is a risk of catching the infection.

How can it be prevented?

People who have been in very close contact with a case of meningitis will be given antibiotics to prevent them from spreading the disease. People who have not had such close contact are at very little risk of catching the disease, and they will not need antibiotics.

Should my children stay away from school?

Children with meningitis will be too ill to go to school. Contacts of cases should go to school as normal. It is very rare for other children in a school to develop the infection, so there is no need to keep children at home if there has been a case reported in the school.

Information for Head Teachers of Schools and Nurseries

Meningococcal Meningitis and Septicaemia

What is Meningitis?

The brain is covered by layers of tissues called the meninges. Meningitis occurs if these covering layers become inflamed, usually as the result of an infection. The infection is usually initially in the throat but spreads to the blood stream, causing "**septicaemia**" and then to the meninges, causing "**meningitis**".

What causes Meningitis?

Most cases of meningitis are caused by either viruses or bacteria. Viral meningitis is commoner, and symptoms are more often mild. Bacterial meningitis is a serious disease needing urgent diagnosis and treatment. The three most important types are: -

- Meningococcal infection. This is the commonest in school age children.
- Haemophilus influenzae meningitis. This was seen almost exclusively in very young children. This type of meningitis has almost completely disappeared now the Hib vaccine has become available and is part of the routine immunisation that all babies receive.
- Pneumococcal meningitis occurs in young infants but only as isolated cases. It does not spread from person to person. The incidence of this disease has been reduced in recent years by the introduction of pneumococcal vaccine into the routine childhood immunisation programme.

What are the symptoms and signs of Meningococcal infection?

When the infection causes **meningitis**, the symptoms may be all or any of the following:

- **Severe** headache
- Stiff neck
- Fever
- Vomiting
- Drowsiness, confusion, unconsciousness
- Discomfort caused by light (photophobia)
- A fine rash like pinpricks, which does not fade when pressed with a glass

When the infection causes predominantly **septicaemia**, the following symptoms may be the most pronounced:

- A fine rash like pinpricks, which does not fade when pressed with a glass
- Joint or muscle pains
- Cold hands and feet

Not all these symptoms may be present, or they may develop over a period of time.

What should Parents do if they think a child might have Meningococcal infection?

Contact their family doctor (GP) as soon as possible. Often by describing the case to the GP over the telephone it is possible to determine if there is an emergency that needs dealing with immediately. If he/she is unavailable, go straight to an Accident and Emergency Department, or dial 999.

Suspected cases of meningococcal infection are always admitted to hospital as an emergency. Meningococcal septicaemia and meningitis sometimes develops in a matter of hours and can be very serious

or even fatal. On other occasions it might take a slower or milder course. If antibiotics are started early enough the majority respond very well to treatment.

Who gets Meningococcal infection?

Around half of cases occur in children under the age of 5 years, with the rest occurring in older children and adults. Most cases occur between November and April.

How is Meningococcal infection spread?

The meningococcus germ is carried in the back of many people's throats and causes them no problems. These people are termed 'carriers'. Between 10 and 25% of the population are carriers at any one time. When someone comes into contact with the meningitis organism for the first time, they are **2000 times more likely to become a carrier** than they are to become a case.

The meningococcus is passed from person to person in droplets that come from the mouth and nose. Infected droplets do not remain air-borne for long, so very close contact is necessary before there is a risk of becoming infected. The meningitis organism is also very fragile and dies very rapidly outside the body. This is why **the disease is not very infectious**.

The reason why some people become symptomless carriers and others get very ill is not fully understood. It may be related to the function of the immune system in particular individuals, and this possibility is being intensively researched. Carriage of a meningococcus gives an individual some protection from developing the disease. This is why the number of cases is unrelated to high carriage rates. This is also one of the arguments against widespread use of antibiotics to kill the meningococcus. The older you are the more likely it is that you have been a carrier in the past and that you have developed some resistance. This is why meningococcal infection tends to be a disease of children.

The usual source of infection is a carrier without symptoms. Development of meningococcal infection as a result of contact with a case is rare unless the contact has been extremely close. Infection is usually introduced into a family by an adult, and may pass from one person to another in the household. This is when the risk to small children is greatest. There is some evidence that over-crowded conditions and exposure to tobacco smoke may be factors in the spread of the disease.

If symptoms develop after contact with a case of meningococcal infection, they will do so within 2-10 days (usually 3-4 days).

Who is a close contact of a case?

The following are definitions of a close contact. They apply to the **week** preceding the diagnosis of the index case.

- Household members who: -
have shared the same house as the index case, and/or,
have slept in the same room as the index case e.g. bedroom or dormitory.
- Other people who have been kissing contacts of the index case (mouth kissing only).
- Children under 5 years old who have: -
attended the same child minder, or,
been close playmates of the index case for prolonged periods.

How can spread of Meningococcal infection be reduced?

Meningococcal infection is transmitted by droplet spread from person to person. It **cannot** be passed on by direct contact with clothing, bed linen, furniture, or any other objects or blood.

- Over-crowding, particularly in sleeping quarters, should be avoided.
- Good ventilation, particularly in sleeping quarters, is important.

Prevention of the spread of Meningococcal infection by using antibiotics

Research has shown that close contacts of people with meningococcal infection are at an increased risk of developing the disease. (See definition of contacts above.) It is to those individuals that we offer antibiotics. This reduces, but does not eliminate, the risk to contacts.

Research has shown that the close contacts of a case of meningococcal infection have a 13% chance of carrying the same strain of bacteria in their throat. Less close contacts, such as classmates, workmates and casual friends have only a 1.6% chance of carrying the same strain, which is close to the general population carriage rate.

Antibiotics are given to close contacts of a case to remove the meningococcus germs, which they may have in the back of their throat if they are a carrier. This reduces the chances of them passing the bacteria on to others. It may also protect the individual by preventing progression of carrier state to meningitis, although this is rare.

However, it is not advisable to give antibiotics to a large number of less close contacts of a case of meningococcal infection for three reasons: -

1. The meningococci may become resistant to the antibiotics, and so make future protection impossible.
2. There can be side effects from taking antibiotics, which are occasionally serious.
3. The nose and throat contain many bacteria, which protect against infection. Antibiotics may kill all these bacteria, and remove this natural protection. This, paradoxically, can actually put people more at risk of developing meningococcal infection, if they then pick up the germ from another carrier.

Prevention of Meningococcal infection by vaccination

Following the successful introduction of Meningitis C vaccine into the routine childhood immunisation programme, since 1999 most **cases of meningitis are caused by the Group B meningococcus for which there is no vaccine at present**. As most children are now vaccinated against Group C disease, vaccination in schools in response to a case of meningitis is very rarely necessary.

Meningococcal infection in Schools

The cases of meningococcal infection that do occur usually do so as single cases. Clusters of cases of meningococcal infection in schools or in the community are very rare.

School closure is very rarely necessary in order to prevent the spread of infection

If one case of meningococcal infection occurs in a school, antibiotics and immunisation, if appropriate, will be offered only to the high-risk groups listed in the previous section. It is not necessary to offer antibiotics to normal school contacts.

If a case of meningococcal infection occurs in a school or nursery, doctors from the Public Health England - South Yorkshire Team will get in touch with the head teacher. A joint decision will be made as to which parents should be informed of the case by letter, as this depends on how the classes are organised in individual schools. Recent experience has suggested that parents are very pleased to be kept informed of events, they do not panic, and they have increased vigilance for the early signs of meningitis if their child becomes ill.

If more than one case occurs in a school, the wider use of antibiotics and vaccines, if appropriate, will be considered, depending on the strains of bacteria, which are responsible for the cases. The decision to give antibiotics and vaccine to a whole school will only be taken after discussion with national meningitis experts, to ensure that the action is both necessary and appropriate.

What will happen if there is a death?

If a pupil or staff member should die from meningitis, the action needed to be taken will be the same as for a case. The parents will be informed by letter in all cases, and antibiotics and vaccine will be used whenever this is considered appropriate. However, there is likely to be considerably more anxiety, and a great deal of media interest, which may, in itself, be disruptive and upsetting. It is important that the Public Health England - South Yorkshire Team is kept in close touch with events in the school, so that they can offer assistance wherever possible.

The help of the national meningitis research organisations can also be invaluable in such circumstances. They have developed considerable experience in offering advice and information on meningitis and have available a wide range of excellent educational material. They also offer support to the victims of meningitis and their relatives and are happy to take over the phone enquiries from members of the public, or from professionals.

Useful Telephone Numbers

Public Health England - South Yorkshire Team (Switchboard)	0114 321 1177
Out of hours, via Royal Hallamshire Hospital	0114 271 1900
Or Doncaster Royal Infirmary	01302 366666

24-hour helplines are available on:

Meningitis Research Foundation www.meningitis.org.uk	0808 800 3344
Meningitis Now www.meningitisnow.org	0808 801 0388

Mumps

Advice for Schools

What is it?

Mumps is an infectious viral disease caused by the mumps virus. It is a mild disease in most people causing very little upset and may even go completely unnoticed.

Symptoms

The mumps virus causes swelling and tenderness of the salivary glands resulting in swelling of the face around the cheeks and the angle of the jaw. In adult males the testicles may also become painful and swollen (this is called orchitis). Adult women may suffer inflammation of the ovaries. Only on very rare occasions does this lead to sterility. The mumps virus is a common cause of viral meningitis, which is usually very mild and has no after effects. It is also an important cause of nerve deafness.

Spread

Mumps is usually spread from person to person by coughs and sneezes. Occasionally, it may be spread by direct contact with the saliva of someone with mumps. People with the illness can pass it to others from shortly before the symptoms start until just after the swelling has settled. Over the past few years, there have been very large outbreaks of Mumps in teenagers and young adults, many of whom have not had two doses of MMR, and mumps is continuing to circulate widely in the community.

Prevention

The only effective way to prevent mumps is to immunise all children against it with the MMR vaccine as part of the routine programme of childhood immunisation.

Exclusion periods

To help prevent the spread of mumps within school, children with mumps should be excluded from school for 5 days after onset of swollen glands. All other children should go to school as normal.

If many school contacts are unvaccinated, exclusion may be considered for a longer period of 10 days.

Mumps

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

Mumps is an infectious viral disease. It is a mild illness in most people and causes very little upset.

What are the symptoms?

Mumps causes swelling and tenderness of the salivary glands. The face of someone with mumps becomes swollen around the cheeks and angle of the jaw. In adult men the testicles may also become painful and swollen and adult women may suffer inflammation of the ovaries, but it is only very rarely that this affects their ability to have children. The mumps virus may also cause a form of viral meningitis, which is usually very mild and has no after effects. It is also an important cause of nerve deafness.

How is it spread?

Mumps is usually spread from person to person by coughs and sneezes. Less often, it may be spread by direct contact with the saliva of someone with mumps. People with mumps can pass it to others from shortly before the symptoms start until just after the swelling has gone. Over the past few years, there have been very large outbreaks of Mumps in teenagers and young adults, many of whom have not had two doses of MMR, and mumps is continuing to circulate in the community.

How can it be prevented?

The only effective way to prevent mumps is to immunise all children against it with the MMR vaccine as part of the routine programme of childhood immunisation.

If your child has not been immunised against mumps it is strongly recommended that they should be. This will not only protect your children from the illness but will also prevent the spread of mumps to others.

Should children stay away from school?

To help prevent the spread of mumps to others within school children with mumps should stay away from school for five days after the onset of swollen glands. All other children should go to school as normal.

Poliomyelitis

Advice for Schools

What is it?

Polio is a very rare illness caused by Poliovirus. Nearly all cases that occur in this country are brought by people who have caught it abroad. **If a case occurs in school you should notify Public Health England - South Yorkshire Team immediately.**

Symptoms

The symptoms of polio vary in severity from case to case. In some cases the illness amounts to little more than a 'flu like illness, in others the illness may resemble meningitis whilst in severe cases it may cause paralysis and even death.

Spread

Polio is a highly infectious disease and can spread rapidly amongst susceptible people. It spreads from the intestinal tract of people with polio to the intestinal tract of others by hand-to-mouth. People with polio can pass on the illness by direct contact with throat secretions.

Prevention

The only effective way to prevent polio is to immunise all children against it as part of the routine programme of childhood immunisation. Unimmunised adults should be immunised regardless of their age. People travelling overseas should ask their GP whether they need a booster against polio before travelling.

To prevent further cases of polio after a case of paralytic polio has been diagnosed everyone in contact with the case should be given a dose of polio vaccine regardless of whether or not they have been immunised against it. People without prior full immunisation will need to receive a full course. This action will be co-ordinated by Public Health England - South Yorkshire Team.

Exclusion Periods

Advice on the exclusion of both cases and contacts will be provided by Public Health England - South Yorkshire Team.

Polio

Advice for Parents

Dear Parent

Please read the following information carefully

What is it?

Polio is a very rare illness caused by a virus. Nearly all the cases in this country are brought in from abroad.

What are the symptoms?

The symptoms of polio vary from case to case. In some cases there is little more than a 'flu like illness, in others the illness may resemble meningitis whilst in severe cases it may cause paralysis and even death.

How is it spread?

Polio is highly infectious and can spread rapidly among people who have not been protected against it. People with polio and those who have been recently vaccinated against it pass on the virus in their stools, and can spread it to other places (taps, other people, food and so on) on their hands. Other people can then pass these germs, usually on their hands, into their mouths and catch the illness. Polio can also be passed on from people with the illness through direct contact with the discharges from their throats.

How can it be prevented?

The only effective way to prevent polio is to immunise everyone against it as part of the routine programme of childhood immunisation. Unimmunised adults should be immunised regardless of their age. If you or your children have not been immunised against polio it is strongly recommended that you ask your GP to do this.

Anyone travelling overseas should ask their GP whether they need a booster against polio before travelling.

After a case of paralytic polio has occurred people in contact with the case may require further immunisation even though they may have already been immunised against it. Anyone who needs this will be contacted.

Streptococcal Disease

(Scarlet Fever)

Advice for Schools

What is it?

A number of different conditions are caused by infection with the bacterium Group A Streptococcus. The most common are:

- Streptococcal sore throat
- Scarlet Fever (see separate sheet)
- Erysipelas

In the past, Streptococcal disease was often followed by acute rheumatic fever and rheumatic heart disease. This complication is rarely seen nowadays.

Symptoms

Streptococcal Sore Throat

Symptoms are usually a sore throat, fever, tonsillitis and swollen lymph glands in the neck.

Scarlet Fever

In addition to the above symptoms, there is a characteristic rash on the body, accompanied by facial flushing and a smooth, red "strawberry" tongue.

Erysipelas

This is characterised by red, tender, swollen, spreading rash on the skin, especially on the face or legs.

Spread

The organism spreads from person to person by coughs and sneezes. Rarely it can be transmitted by contaminated food or milk.

Prevention

There is no immunisation against streptococcal disease. People with streptococcal infection can pass it on to others for 10-21 days if they are not treated. If they are given antibiotics, they are no longer infectious after 24 hours.

Exclusion Period

Children should be excluded from school until 24 hours after they have started antibiotic treatment. Those suspected to have a viral sore throat, and contacts of cases do not need to be excluded.

Scarlet Fever

Advice for Parents

Dear Parent

Please read the following information carefully.

What is it?

Scarlet Fever is an infection due to a germ called Streptococcus.

What are the symptoms?

Scarlet Fever often starts with a sore throat, high fever, swollen neck glands and tonsillitis. A skin rash develops on the body, and the face is often flushed. The tongue may be smooth and bright red.

How is it spread?

Scarlet Fever spreads from person to person by coughs and sneezes. Rarely it can be spread by contaminated food or milk.

How can it be prevented?

Children with Scarlet Fever should be treated with antibiotics. After 24 hours of treatment they will no longer be infectious. There is no immunisation available against the infection.

Should children stay away from school?

Children with Scarlet Fever should stay away from school until 24 hours after the start of antibiotic treatment. Contacts of cases should go to school as normal.

There is no risk to pregnant women or their babies. Anti-biotics can be given during labour.

Tetanus

Advice for Schools

What is it?

Tetanus is a rare but serious disease caused by a germ called Clostridium Tetani. There are about ten cases a year in England and Wales.

Symptoms

Tetanus causes painful muscle spasms and paralysis. The muscles involved are usually those of the jaw, neck, face and trunk. It can interfere with breathing and can kill.

Spread

Tetanus is not passed on from person to person. In order for someone to develop tetanus the germ has to enter the body through any wound which is contaminated with soil, street dust, animal or human faeces. Deep puncture wounds (such as those caused by garden forks) are particularly risky.

Prevention

The only effective way to prevent tetanus is to immunise everyone against it. This is done as part of the routine programme of childhood immunisation but can be carried out at any age. A full course of immunisation against tetanus (five injections in total) gives protection for life. A 'booster' dose may be required for individuals "at risk" e.g. at the time of a tetanus-prone wound. Tetanus toxoid is one of the components of the School leavers' booster.

All cuts scratches and puncture wounds should be thoroughly cleaned with soap and water. All large wounds, all wounds heavily contaminated with dirt and all wounds in people not protected against tetanus may require further treatment, and medical advice should be sought from a GP or local hospital casualty department.

Tetanus

Advice for Parents

Dear Parent

Please read the following information carefully

What is it?

Tetanus is a rare but serious disease. There are about ten cases a year in England and Wales.

What are the symptoms?

Tetanus causes painful muscle spasms and paralysis. The muscles involved are usually those of the jaw, neck, face and trunk. It can interfere with breathing and can kill.

How is it spread?

Tetanus is not passed on from person to person. In order for someone to develop tetanus the germs causing tetanus have to enter the body through any wound contaminated with soil, street dust, animal or human faeces. Deep puncture wounds such as those caused by a garden fork are particularly risky.

How is it prevented?

The only effective way to prevent tetanus is to immunise everyone against it. This is done as part of normal childhood immunisation but can be carried out at any age. A full course of immunisation (five injections in total) gives protection for life. A 'booster' dose may be required for people "at risk" e.g. at the time of a tetanus-prone wound. Tetanus immunisation is offered to every child as part of the routine immunisation schedule at 2, 3 and 4 months, with the pre-school booster and the school leavers' booster. If you or your family are not fully protected against tetanus we strongly recommend that you ask your GP to do this.

Threadworms (Pinworms)

Advice for schools

What is it?

Threadworm infestation is also known as enterobiasis, and is caused by infestation with tiny white worms named *enterobius vermicularis*. They are not a serious health problem although they can be a real nuisance.

Symptoms

Threadworm infestation presents typically with itching around the back passage (anus) at night. This is because the worms leave the bowel at night to lay eggs on the skin around the back passage. Sometimes an infected person may have no symptoms at all. Rarely the worms can be seen in the stools, looking like tiny cotton threads.

Spread

Threadworms can spread from person to person. Eggs may pass on to the hands or under the fingernails of the person infected through scratching the itchy area and because of inadequate handwashing after using the toilet. The person may then pass them on to an uninfected person through food or other materials that they have handled.

After ingestion of the eggs, the worms hatch and may remain dormant for two to six weeks without causing any symptoms.

Prevention

Treatment of the index case and family contacts is the most effective intervention to interrupt person to person transmission. All persons living in the household must be treated at the same time as the index case, as they are likely to be infected even if they do not have symptoms. Treatment is readily available from the local Pharmacy or from the GP.

Ensuring adequate hand hygiene after using the toilet and before preparing food, and attention to the personal hygiene of the infected person are highly essential to eradicate infection and prevent spread or recurrence.

Exclusion Period

Children with threadworms need not be excluded from school. Once they are treated they do not transmit the infection.

Tonsillitis

Advice for schools

What is it?

Tonsillitis means inflammation of the tonsils. It may be caused by bacterial infection such as Streptococcus (See Streptococcal Sore Throat) but most cases of tonsillitis are caused by a virus.

Symptoms

Tonsillitis usually presents with a sore throat, which may be severe. The tonsils are usually swollen and red, and may show spots of pus, or be covered with a white film of pus. There is often a very high fever, and headache. The glands in the neck are often swollen and the neck may be stiff and tender.

Spread

The virus spreads from person to person by coughs and sneezes.

Prevention

Prevention is difficult, as the virus may spread easily from person to person. In most cases the GP will not prescribe an antibiotic as this is ineffective for virus infections. If the GP considers that the tonsillitis is likely to be caused by Streptococcal infection, antibiotics will be prescribed, which will reduce the spread to others.

Exclusion

Children with tonsillitis will usually feel too poorly to go to school. They do not need to be excluded once they feel better.

SECTION 3
INFECTION CONTROL

3.1 PREVENTION AND CONTROL OF INFECTION

Basic Principles of Infection Control in Schools & Nurseries

Standard (Universal) Precautions

Blood and body fluids may contain blood-borne viruses (e.g. Hepatitis B, C HIV) or other bacterial and viral pathogens. As it is not always possible to know who is infected with these pathogens, precautions must **always** be taken when handling any blood and body fluid. Standard Precautions apply to all people where there is possible contact with

- Blood
- Blood Stained body fluids
- Non intact skin
- Mucous membranes

Standard Precautions

These precautions have key areas and focus on the following

Hand Washing

Hand washing is the single most important method of reducing cross infection that is available.

Hands should be washed before and after all procedures, before and after wearing gloves and when visibly contaminated with 'dirt'. Hands should be washed using normal everyday soap, preferably from a dispenser and dried using disposable paper towels.

Any skin contaminated with blood should be washed off immediately using soap and running water.

Broken Skin

All cuts and abrasions must be covered with a waterproof dressing. The plasters are usually coloured blue. Do **not** use airstrip plasters, as they are not waterproof.

Protective Clothing

Protective clothing is used to prevent the transmission of micro-organisms between the patient and the member of staff. The need to wear protective clothing will depend upon the potential risks associated with the task. It is the members of staff's responsibility to assess the risk and decide what clothing is necessary and appropriate.

Gloves should be worn for all contact with blood and body fluids, and for direct contact with non-intact skin or mucous membranes. Ensure that neither the member of staff nor the patient is allergic to latex. If this is the case then non latex gloves must be used.

Plastic disposable aprons should be worn whenever contamination of clothing with blood and body fluids is anticipated, and discarded after use.

Protective eyewear should be worn where there is a risk of blood/body fluid splashing in the face.

Blood and Body Fluid Spillages

Any spill containing blood/body fluid must be dealt with promptly, preferably using a recognised spillage kit containing granules or a liquid solution of hypochlorite at 10,000ppm, disposable gloves, shovel and waste bag. Disposable plastic aprons should always be worn.

Using Hypochlorite Granules (e.g. Haz tabs or Actichlor)

1. Put on gloves and apron
2. Cover area of spill with the granules and wait for the fluid to be absorbed
3. Wait 2 minutes for absorption to be completed
4. Scoop up the granules and spill and place into a waste bag
5. Discard the waste as clinical waste

6. Disinfect the area with the required amount of hypochlorite solution (concentration 10,000ppm)
7. Dispose of paper towels, gloves and apron as clinical waste
8. Wash hands thoroughly

Using Hypochlorite Solution (e.g. Bleach, Domestos, Milton, Actichlor)

1. Prepare the solution according to the manufacturers instructions
2. Cover area with disposable paper towels to limit spread of spill
3. Wait for the spill to be absorbed
4. Discard the paper towels after spill completely absorbed, as clinical waste
5. Clean area with disposable paper towels and hypochlorite solution of 10,000ppm
6. Dispose of paper towels and protective clothing as clinical waste
7. Wash hands thoroughly

Where the school does not have any access to Hypochlorite solution the following procedure should be followed

1. Cover the area of the spill with paper towels to absorb the fluid
2. Wait until the fluid has been completely absorbed into the towels
3. These should then be collected and disposed of as clinical waste (if collection available) or wrapped in plastic bag and disposed of into the household waste bin
4. The area should then be washed with a suitable disinfectant solution (e.g. Dettol)

Urine spills

1. Wear the correct protective clothing
2. Cover the spill with disposable paper towels to absorb the urine and limit the spread
3. If necessary Hypochlorite solution of 10,000ppm can then be used to clean the area.
4. Dispose of all waste as clinical.

It must be noted that if the spills occur on a carpeted area the Hypochlorite solution will bleach the carpet. Therefore the following recommendations are for carpeted areas;

Spills on Carpets

1. Wear the appropriate protective clothing
2. Cover the area with disposable paper towels
3. Wait until the spill has been completely absorbed
4. Remove the towels and dispose as clinical waste
5. Wash the carpet with water and a suitable carpet cleaning shampoo
6. As soon as is possible steam clean the carpet

Clinical Waste

All schools should refer to the Health & Safety Code of Practice No 31 document entitled 'Disposal of Clinical and Sanitary Waste' October 2001 produced by the LEA Health and Safety Service for information regarding clinical waste and its safe disposal.

For nurseries that are producing large quantities of used nappies a contract for a clinical waste collection should be in place with the Local Authority. For more information regarding clinical waste collection please contact the Local Authority.

Toy Cleaning Schedule

All soft toys must be machine washable and preferably BS kite marked. All other toys should be easy to clean with soap and water and dried thoroughly.

All toys should be in a good state of repair and monitored for any degeneration.

Toys should be cleaned on a regular cleaning schedule based on the minimum of 1 month and maximum weekly. However any toys that are used by a child and inserted into the mouth should be cleaned immediately after use (wherever possible).

Baby Changing Mats

These must be cleaned in between each baby use. They should be cleaned with soap and water and dried thoroughly. Where the child/baby has an infection the mat should be cleaned in the usual way followed by an alcohol wipe (containing 70% alcohol).

The mats must be in a good state of repair and the plastic covering intact with no tears or splits. Any mat with a tear or split must not be used and should be discarded immediately. This is to reduce the risk of cross infection as the foam can become contaminated with micro-organisms that could infect a susceptible baby.

3. 2 SUGGESTED ADVICE FOR PARENTS OF NEW SCHOOL STARTERS

Dear Parent

Children of school age commonly suffer from infectious diseases. Some of these are given a specific name such as chicken pox or measles, some are termed 'viral illness' and others are described by the symptoms they cause such as diarrhoea and vomiting. Most of these are mild, short-lived illnesses in the majority of children but the problem is that they easily spread within the school setting.

In order to reduce the chance of your child being ill at school and to reduce the spread of infectious disease within school, it would be helpful for you to follow these guidelines. These will help you to decide when your child should stay away from school and how to make the decision to send them back, and when you should inform the school about any close contact with other cases of infectious diseases.

If children do become ill at school we need some information to ensure that they are cared for in the best way. Please would you make sure that the school has up to date information on where parents may be reached during the day, your child's GP and the name of a trusted person to be contacted in an emergency. When parents cannot be reached, we need to know who can take responsibility for a decision about your child's treatment in an healthcare emergency.

Please inform us if your child has been in close contact with a case of:

Infectious diarrhoea (shigella, salmonella, rota virus) or hepatitis, since micro organisms causing these diseases can be carried and spread by persons who have no symptoms.

If the school is aware of these they will be alert to the possible development of outbreaks and of the need to take early action to prevent it spreading.

Please inform us of the reason for your child's absence from school.

This will allow us to keep track of the illnesses, which are circulating within the school and help us identify the opportunities for preventing further spread.

Please keep your child at home if he/she is unwell.

Children who are unwell should not be at school. They will not be able to cope with class activities and may spread the illness to their friends.

Children should not attend school when they have any of the following symptoms:

Diarrhoea - (two or more loose stools within 24 hours) diarrhoeal illnesses spread easily amongst young children. If parents keep their children with diarrhoea at home until 48 hours after they have had a normal stool, all children will get diarrhoea less often.

Vomiting

Persistent and strange sounding cough

Yellowish skin or eyes (jaundice)

Headache and stiff neck - particularly if your child is irritable and generally unwell

Conjunctivitis- eyes may be sore, sticky and producing pus

Unusual spots or rashes

Sore throat - or trouble swallowing

Infected skin patches

Severe itching - of body or scalp (except for eczema).

You should contact your GP (family doctor) for any further advice, particularly if the symptoms are severe or persistent. Please pass on information regarding the diagnosis to the school. The length of time your child should stay off school depends upon the cause of the illness (there are recommended exclusion periods for particular conditions), how long the symptoms last and how quickly your child recovers.

Please discuss the need for prolonged absence with your Primary Health Care Team and your class teacher, who share responsibility for your child's welfare. Children who are absent for long periods or have frequent short periods of illness can be affected emotionally by the disruption in their school work and may have difficulty fitting back into their social group in the class. Where a problem is identified early, and a child feels included in positive decisions, they will also feel secure and supported and are less likely to become reluctant to attend class.

Please make provision for alternative care

Sooner or later all children will be ill. This can cause problems and make life difficult. The best way to deal with these situations is to plan ahead.

- Find out about your employer's sick leave policies.
- If it is difficult to take time off work, find an alternative care giver. This could be a relative, friend, neighbour or other dependable adult you could ask to help when your child is too sick to be at school.

Thank you for your co-operation.

3.3 CONTROL OF INFECTION DURING SCHOOL VISITS TO FARMS

This advice should be read in conjunction with the Health & Safety Executive document “Avoiding Ill Health at Open Farms – Advice to Teachers (AIS123 Supplement (Revised))” available on www.hse.gov.uk and the Health Protection Agency leaflet “Avoiding Infection on Farm Visits”, available on www.phe.gov.uk

Before the visit

Farmers and organisers of visits to farms need to be aware that visitors may be more susceptible to infection from the farm environment and its products than are those who live in that environment. Although the likelihood of members of the public becoming infected from the livestock or the farm environment appears to be small, incidents of infectious disease have been reported with increasing frequency. Particular problems have been the association between cases of cryptosporidiosis, especially in the spring, and the handling and feeding of lambs, and outbreaks of *E. coli* O157 following visits to open farms.

Cryptosporidiosis is characterised by watery diarrhoea and abdominal pain, which can last for 7-14 days and is most common in children. Farm animals and contaminated water are the most important sources of infection, which can then spread from person to person. The illness is caused by a parasite, which is not susceptible to antibiotic treatment, and although normally a self-limiting illness, admission to hospital may be required in severe cases and in people with impaired immunity.

E. coli O157 is characterised by diarrhoea, which is often bloody, and which may be complicated by anaemia and renal failure (Haemolytic Uraemic Syndrome), particularly in the very young. This organism is present in the faeces of many healthy animals, and may be widespread in the environment on farms. The dose required to cause infection is extremely small, and meticulous attention to hand hygiene is the mainstay of prevention.

Instruction in simple hygiene measures should form part of the pre-visit briefing to teachers, parents and children and the measures need to be re-emphasised during the visits. The most important points are as follows: -

1. Teachers should ensure in advance that adequate toilet and washing facilities are available for visitors. These should include hot water, soap and disposable towels. Hands should be washed after handling animals and before leaving the site and children should be supervised where possible.
2. If refreshments are to be taken on site teachers should ensure that a separate clean area is set aside for eating purposes. In the absence of suitable facilities for eating, use may have to be sought of other suitable local facilities, such as a village hall or school. Hands must be washed with soap and water before handling food.
3. Children should be warned in advance that farms can be hazardous places. Hazards to avoid would include touching substances that may be poisonous, and entering confined spaces, which may contain poisonous gases.

During the Visit

4. Children should be discouraged from putting fingers in their mouths. They must not sample animal feedstuff, raw milk or similar items, nor drink from taps unless clearly marked as suitable for the purpose.
5. Children should be closely supervised if direct contact with animals is likely. In particular, bottle-fed lambs and calves are usually especially tame and may nuzzle children and suck their fingers. Children must not enter the lower walk-way of herring-bone milking parlours when milking is in progress.
6. Pregnant teachers should not help in lambing or milking ewes that have recently given birth.

After the Visit

7. After leaving the farm, hands should be washed thoroughly after removing and handling contaminated clothing and footwear. Dirty footwear should be stored carefully until cleaned and dirty clothing laundered as normal.
8. Anyone suffering from symptoms of diarrhoea, with or without vomiting, anorexia and abdominal pain, after a farm visit, should visit their General Practitioner. The GP should be advised of the person's contact with animals.
9. Should any child or teacher be diagnosed as suffering from Cryptosporidiosis, or E. coli O157, please report the infection to the Environmental Health Department.

Further advice may be obtained from the Environmental Health Department or the Public Health England – South Yorkshire Team

3.4 HEADLICE CONTROL POLICY

1 Introduction

1.1 This document provides a framework for the management and treatment of head lice infection and identifies parental and professional responsibilities.

1.2 Head lice infection is widespread and most commonly occurs in children, but also affects adults. Head lice are not primarily a problem of schools, but of the community. They are not a serious health problem in the UK. Head lice infections can be intensely irritating and if left untreated skin infections can occur if the bites are scratched. However, they rarely cause other physical symptoms.

1.3 Responsibilities

The primary responsibility for the identification, treatment and prevention of head lice in a family rests with parents, if only for reasons of practicality.

However, parents will need instruction and support from a range of professionals, including health visitors, general practitioners, practice nurses, community paediatricians, pharmacists. School-based professionals (e.g. school nurses) are well placed to raise parental awareness of their responsibilities, to support teaching staff in managing parental anxiety and concern and to assist families with the management of difficult cases.

All these professionals should ensure that they are knowledgeable and competent in:

- Knowing the facts of lice
- How to detect head lice
- How to treat head lice
- Contact tracing

2 Basic Facts

2.1 The Facts of Lice:

- Head lice are small insects (about the size of a sesame seed when fully grown) that live very close to the scalp.
- Nits are not the same as lice. Nits are the empty egg cases that stick to the hair.
- Head louse infection is diagnosed by finding a **living, moving louse** (not a nit).
- Head lice spread by climbing rapidly from head to head. They do not fly, jump or swim.
- Anybody can get head lice – both adults and children.
- A lot of head louse infections are caught from close family and friends in the home and community, not always at school.
- Head lice don't care if the hair is dirty or clean, short or long.
- Parents should be encouraged to report infections to the class teacher and inform parents of their children's friends, thus alerting them to the problem as well as helping to de-stigmatise the issue.

2.2 How lice spread

Head lice spread from one person to another only by relatively prolonged head-to-head contact. Fleeting contact will be insufficient for lice to be transferred between heads. Lice are unlikely to be spread from person to person on chair backs, pillows, hats and other objects.

2.3 What factors increase the risk of head lice infection?

Once a person has contracted head lice, the infection develops steadily if left unchecked. It is believed that time spent curing an individual is wasted unless close contacts are also traced and those found to be infected area treated at the same time. By doing this, the risk of re-infection to the patient will be reduced as will the degree of transmission of lice on a wider scale. As most infections have existed for weeks rather than days before they are discovered, close contacts over the last month should be traced.

2.4 Social stigma

The association between head lice and a lack of personal hygiene is a common, although misfounded, belief, as lice are equally likely to be found on clean or dirty hair. Such beliefs can lead to difficulties when contact tracing because parents often do not want to admit that their children have lice because of the embarrassment and social stigma attached.

2.5 Lice are a community problem

The highest prevalence of head louse infection occurs in children between the ages of 4 and 11, with girls tending to show a higher incidence of infection than boys. Previously it has been argued that head lice are a school rather than a community problem. However, it is now recognised that head lice are spread into schools from the community and that children of school age are the group most likely to become infected.

3 How to detect head lice

1. Wash the hair well and leave the hair wet, but not dripping.
2. Ensure that there is good lighting – daylight is best.
3. First, comb the hair with an ordinary comb. Then, using the detector comb, begin at the top of the head and making sure that the comb is touching the scalp, slowly draw the comb towards the ends of the hair.
4. Check the teeth of the comb carefully.
5. Repeat steps 3 and 4, working your way around the head from the top of the scalp to the ends of the hair. This should take 10 to 15 minutes.

If there are head lice, you will find one or more on the teeth of the comb.

- If you find lice, or something that you are unsure about, stick it to a piece of paper with clear sticky tape and take it to your nurse, local pharmacist or GP.
- Some people find that it is helpful to rub a handful of conditioner into the hair before combing. If you do use conditioner then remember to:
- Wipe the comb with tissue paper after every stroke to check for lice
- Rinse it off thoroughly after combing is finished.

**The best way to stop infection is to do detection combing regularly
NEVER use insecticides to PREVENT infection, or just in case.**

If a child has head lice parents should be encouraged to

- Inform their school and anyone who has been in close contact with the family.
- Check the heads of everyone in the family
- Only treat those family members who are found to be infected

4 Prevention

Combing is an important part of personal care, but head lice are not easily damaged by it. Good hair care can help to identify lice early and so help control them.

The best way to stop infection is for families to learn how to check their own heads, this way they can find any lice before they have a chance to breed. The method called 'detection combing' can be done as often as families feel there is a need.

A step by step guide to the 'detection combing method' can be found above in the heading '**How to detect head lice**'. (Section 3)

5 Head lice Management and Control Measures

5.1 Interventions

Chemical preparations for head lice infection should never be recommended or used unless a living, moving louse has been found on the head of at least one family member. Ideally, if one member of the family has a current infection, detection combing of all members should be undertaken, and only those found to be infected should be treated, preferably all at the same time.

Insecticides (pediculicides) recommended for use in the UK are:

- Malathion lotion and liquid
- Phenothrin lotion and liquid

The above preparations are available over the counter without prescription

- Carbaryl liquid is available on prescription only.
- Dimeticone lotion (Hedrin) – organophosphate free. This product creates a physical barrier around the louse which eventually kills it. It does not act chemically on the insect, and is thus unlikely to suffer from the problem of developing drug resistance.

5.2 Evidence of effectiveness of treatment

The most recent review of evidence is found in the Public Health Medicine Environmental Group publication “Head lice: Evidence Based Guidelines based on the Stafford Report 2008 update”.

Formulations such as shampoos and crème rinses provide an insufficient concentration of the active product, or they provide too short a contact time to be effective. They are not recommended.

Malathion and Phenothrin liquids and lotions were both found to be effective with high cure rates. Dimeticone offers a significantly more effective treatment than Malathion for most people.

Permethrin is active against head lice, but the formulations currently available in the UK either provide an insufficient concentration of the active product, or they provide too short a contact time to be effective.

Permethrin is therefore NOT recommended as a suitable treatment for head lice.

5.3 Resistance in the UK

There is evidence that the development of resistance in head lice to Permethrin and Malathion is already widespread in the UK and may render any products containing related compounds ineffective.

No resistance has been noted for Malathion plus terpenoids (Suleo-M). While there have been no published reports of resistance to Carbaryl, isolated pockets of resistance have been recorded. Treatment failure is also often caused by misdiagnosis and inadequate or inappropriate application.

Resistance to Dimeticone is unlikely to be significant due to the physical rather than chemical nature of its action upon the lice.

5.4 The ‘structure mosaic’ treatment

Current UK practice works on an individual patient basis using a ‘structured mosaic’ of treatments. One product is used for a course of treatment (two applications spaced seven days apart). If the treatment fails then another product whose active ingredient is in a different insecticide class should be tried (e.g. switch from Phenothrin to either Malathion or Carbaryl). Generally, Carbaryl is kept as the fall-back position to be used when all else fails. The recent introduction of Dimeticone offers another alternative.

5.5 Other interventions – the ‘bug busting’ method

In the UK, a physical method of wet combing known as ‘bug busting’ is often used to control head lice. This method requires the hair to be wet combed, using a special fine toothed comb and conditioner, for at least 30 minutes every third or fourth day over a two week period.

There is currently no reliable evidence to indicate whether physical methods such as wet combing/‘bug busting’ are effective as a means of curing head lice infestations. However, it offers a degree of control over head lice infection for those parents who refuse to accept conventional treatment with insecticides because of concerns about their safety.

5.6 Herbal Treatments

Similarly, no reliable evidence exists to indicate the effectiveness of other chemical control methods, such as herbal treatments, in the curative treatment of head lice.

6 Safety

Concerns regarding the toxicity of some of the insecticides used to treat head lice have been expressed by members of the public, recorded in the popular press, with isolated incidents of toxicity being reported in scientific literature.

The Committee on Safety of Medicines have also received a very small number of suspected drug reaction reports through the ‘yellow card scheme’ for identifying suspected adverse reactions. However, these reactions have not necessarily been caused by the drug. Other factors may have to be taken into account including co-prescribing and underlying disease.

7 Practical advice on how to treat head lice using insecticides

- Do not start treatment unless a living, moving louse is found and this is confirmed by your nurse, pharmacist or GP.
- If your nurse, pharmacist or GP has not examined the affected head themselves, try to show them a sample of the louse attached to some sticky tape.
- Ask your nurse, pharmacist or GP which treatment to use. Insecticides are the usual recommended treatment.
- Do NOT use head louse shampoo.
- Apply lotions or liquids to dry hair in a well ventilated room.
- Part the hair near the top of the head. Put a few drops of the lotion or liquid on to the scalp and rub it in. Part the hair again a bit further down the scalp and rub in some more of the lotion or liquid. Repeat this until the whole scalp is wet. You don’t need to apply the lotion or liquid beyond where you would put a pony tail band. Take care not to get the lotion or liquid in the eyes or on the face.
- Let the lotion or liquid dry on the hair naturally. Keep well away from naked flames, cigarettes or other sources of heat. Do NOT use a hair dryer.
- Lotions and liquids must be left on the hair for 12 hours or overnight. Then wash and rinse the hair as normal.
- You should use at least one small bottle of lotion or liquid per head, more if the hair is thick.
- Repeat the entire treatment 7 days later, using a second bottle of the same lotion or liquid.
- Check the head 2 to 3 days after the second treatment using the detection combing method (‘bug busting’).
- If live moving lice are found then another product whose active ingredient is in a different insecticide class, should be tried. (e.g. switch from Phenothrin to Malathion or Carbaryl). Carbaryl is available on prescription only basis.
- Check the head two to three days after completing the second course of treatment. If you still find living moving lice ask your nurse, pharmacist or GP for advice.

8 Exclusion from School

There is provision in the Education Act 1996 (sections 520-525) specifically addressing the issue of excluding a pupil from school pending examination or cleansing.

It should be noted that the powers are separate and distinct from the powers to exclude based upon pupil conduct and in the context of school discipline.

Section 521 states:

“A local education authority may by direction in writing authorise **their** medical officer to have the persons and clothing of pupils in attendance at schools examined whenever, in their opinion, these examinations are necessary in the interests of cleanliness.”

If schools wish to make use of the provisions in section 520-525 it is suggested that they should approach the Education Authority in the first instance, and discuss the matter with the Local Authority Solicitor.

Under normal circumstances, exclusion from school should NOT be used, because:

- It cannot ensure the elimination of infection from the family of a child
- It is an unproductive and undesirable overreaction to a problem that is not a public health threat
- It is inappropriate, being simply an admission of the failure to deal with an infection by the community and its professional advisers, without contributing to the solution
- It is not used for other conditions with low transmissibility such as verrucas or herpes simplex infections
- Families with continuing or recurring infections with head lice should be assisted and supported by the help of the community, including the school and by health professionals

9 School Nursing Service

The School Nursing Service does not have a contract with the Local Education Authority to examine or screen pupils in school for any infestations. School Nurses will continue to give advice and health education on head lice for schools. Parents/carers requesting specific health advice on head lice infestation should be referred to their school nurse.

3.5 SUGGESTED MANAGEMENT OF BITES IN SCHOOLS

1. As a general rule, human bites that break the skin should be washed thoroughly with soap and water, covered with a clean, dry dressing and seen by a doctor. Whether this is most appropriately the GP or an A & E doctor, will be determined by the staff, taking into account such circumstances as the severity of the injury inflicted and the time of day.

2. If a child regularly bites hard enough to break the skin, **and has previously lived in a residential establishment**, permission should be sought from the parents to test the child for hepatitis B carriage, and, if negative, to immunise with hepatitis B vaccine.

Children who have never been in residential care are at no greater risk of having hepatitis B than members of the public in general.

3. If a child who is known to be a carrier of hepatitis B inflicts a penetrative bite, the victim should be offered hepatitis B vaccine.

4. If a child who is known to be a carrier of hepatitis B has a tendency to bite, consideration should be given to offering staff and possibly other pupils hepatitis B vaccine.

5. The risk of contracting hepatitis B from the bite of a child in South Yorkshire is, on current evidence, very small.

3.6 QUICK GUIDE TO EXCLUSION FROM WORK/SCHOOL FOR COMMON INFECTIONS

DISEASE	CASES	CONTACTS
RASHES AND SKIN DISORDERS		
CHICKEN POX	Exclude for 5 days from onset of rash	No exclusion
COLD SORES	No exclusion	No exclusion
HAND, FOOT AND MOUTH	No exclusion	No exclusion
IMPETIGO	Exclude until lesion healed or completed 48 hours antibiotics	No exclusion unless symptoms develop
MEASLES	Exclude for 4 days from onset of rash	No exclusion
RUBELLA	Exclude for 6 days from onset of rash	No exclusion
SCABIES	Exclude until treated	No exclusion
SHINGLES	Exclude while ill, and at least one week after onset if the rash cannot be covered	Children and adults with shingles do not need to stay away from school if the shingles rash can be kept covered by clothing.
RINGWORM, and VERRUCAS	No exclusion	No exclusion
PARVOVIRUS	No exclusion	No exclusion
DIARRHOEA AND VOMITING*		
DIARRHOEA OF UNKNOWN ORIGIN	Exclude until symptom free for 48 hours.	No exclusion unless symptoms develop
GASTROENTERITIS (VIRAL)	Exclude until symptom free for 48 hours	No exclusion
BACILLARY DYSENTERY (SHIGELLA)	Exclude until normal stools for 48 hours Give hygiene instructions	<ul style="list-style-type: none"> • No exclusion • Give hygiene instructions • Self exclude if symptoms develop
E.COLI 0157 (VTEC)	Exclude until 2 negative specimens, 48 hours apart	Exclude until 2 negative specimens, 48 hours apart

*In case of diarrhoea and vomiting in staff who handle food (dinner ladies, breakfast clubs, parties etc), the Occupational Health Nurse should be notified as soon as possible.

DISEASE	CASES	CONTACTS
RESPIRATORY ILLNESS		
COMMON COLD	Exclude only if unwell	No exclusion
DIPHTHERIA	Cases should be kept off school until they have recovered and 3 consecutive nasal and throat swabs taken on different days following the completion of treatment are negative.	Contact CCDC
INFLUENZA	Exclude while symptomatic	No exclusion
TUBERCULOSIS	Will be decided on a case by case basis by the Chest Clinic/Public Health England - South Yorkshire Team.	No exclusion
PERTUSSIS	Exclusion until <ul style="list-style-type: none"> • 21 days after the onset of the episodic coughing if they have not been treated with antibiotics, or • 48 hours from starting antibiotics 	No exclusion
OTHER INFECTIONS		
CONJUNCTIVITIS	None necessary unless outbreak occurs	No exclusion
GLANDULAR FEVER	No specific exclusion period. Children should stay off school till they are well	No exclusion
HEAD LICE	No exclusion	No exclusion
HEPATITIS A	Exclude until 7 days from onset of jaundice, or until clinically recovered	No exclusion Contact CCDC regarding immunisation
HEPATITIS B	Will be decided by doctor in charge of child's care.	No exclusion
HIV and AIDS	No exclusion	No exclusion
MENINGITIS and MENINGOCOCCAL SEPTICAEMIA	No exclusion once recovered	No exclusion
MUMPS	Exclude until 5 days from onset of swollen glands	No exclusion
POLIOMYELITIS	Will be decided by the Public Health England - South Yorkshire Team.	Will be decided by the Public Health England - South Yorkshire Team
STREPTOCOCCAL DISEASE (sore throat and skin infections)	Exclude until 24 hours after they have started antibiotic treatment.	No exclusion
SCARLET FEVER	Exclude until 24 hours after they have started antibiotic treatment.	No exclusion
THREADWORM	No exclusion, but treat.	No exclusion, but treat.

This document was produced by:

Public Health England - South Yorkshire Team

Tel: 0114 321 1177

It is a revision of the document "The Management and Control of Infectious Diseases-A Manual for Schools, Nurseries and the Youth Service In South Yorkshire" produced in 2005.

Further copies of this document may be obtained from Public Health England - South Yorkshire Team on the above number. Any suggested amendments to the document should be referred to Dr W Phillips, Unit Director of Public Health England - South Yorkshire Team