



THE SPOTTY BOOK:

NOTES ON

**INFECTIOUS DISEASES IN SCHOOLS
& CHILDCARE SETTINGS**

South West Peninsula Health Protection Unit

December 2010

Foreword

This booklet provides general guidance for schoolteachers and others with children in their care about the prevention and control of infectious diseases.

The advice applies to schools, nurseries, playgroups and childminders. “School” will be used throughout to indicate all these except where otherwise indicated.

We advise a proactive, preventative approach. Schools should develop a policy to make clear the instances when children should be kept away due to illness. Parents should be made aware of the policy and agree to follow it.

You should consider the following:

1. Children unwell with infectious diseases should not in general attend schools, although mild ‘snuffles’ and colds need not necessarily prevent a child attending.
2. If a child becomes ill during care, parents must be contacted and the child taken home if necessary. Schools, child-minders, nurseries and playgroups are advised to keep a record of each child's GP details and immunisation history.
3. Parents should notify the school if their child has or is suspected to have an infectious disease.
4. The school should notify parents if a significant risk to other children exists.
5. A child with infectious disease should be excluded from school until fully recovered. Diseases with specific exclusion periods are listed in section 8.
6. Check that parents know your rules and accept that they will have to take time off, or make other arrangements for their child's care, if their child is ill.
7. Be aware of children and staff who are more susceptible to infection due to underlying diseases, treatment or pregnancy.
8. If in doubt seek further advice from their GP, Health Visitor or local Health Protection unit (HPU)

Acknowledgements

The first edition of the “Spotty Book” was produced in Plymouth in the 1970s. Since then there have been several editions both in Plymouth and in other districts in Devon and Cornwall. Authors and editors include Paediatricians, Microbiologists, General Practitioners, Nurses and Public Health Physicians. Contributions and comments have been provided by numerous people. This edition provides up to date information, covering the whole of Devon and Cornwall, ensuring that advice is consistent. Local contact names and numbers are provided in the appendix for each area covered.

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Notes on infectious diseases in schools

Introduction

Control of infection among children in schools depends upon

- ◆ prevention
- ◆ early recognition of each case
- ◆ prompt action and follow-up

Infections may be:

- (i) acquired at home or the community and brought into school.
- (ii) acquired and spread within school

In addition members of staff (teachers, classroom assistants, catering, caretaking, clerical etc.) may become infected.

The following guidance provides background information about the most common infections and outlines the appropriate action to be taken to limit their spread. It updates and replaces all previous editions.

The key personnel involved include:

- ◆ Head teacher or manager
- ◆ School nurse
- ◆ Health Visitor (for children in nurseries or play-groups)
- ◆ Consultant in Communicable Disease Control (CCDC)
- ◆ Health Protection Nurse
- ◆ School doctor
- ◆ General Practitioner
- ◆ Consultant Community Paediatrician
- ◆ Environmental Health Officer
- ◆ Consultant Microbiologist
- ◆ Occupational Health
- ◆ Parent
- ◆ Childminder

Prompt communication between each of these parties will ensure that children and staff are not exposed unnecessarily to infectious diseases and that undue anxiety is avoided.

1. Childhood immunisation

Children are offered protection against many of the childhood diseases through the vaccination programme (see schedule below). Booster doses are given before school entry. However, it is always worthwhile for the school health service to check that all appropriate doses of vaccine have been given and to arrange this if not.

This means that very few cases of these childhood infectious diseases should now occur but, until all children are protected in this way, sporadic cases will continue to be seen.

Guide to Routine Childhood Immunisation Schedule (as of may 2010)

The U K immunisation schedule is regularly updated so for the most up to date information visit www.hpa.org.uk/immunisations/guidelines. (Latest update as of November 2010 is to combine the 12 and 13 month vaccines at one visit).

When to immunise	What is given	Vaccine and how it is given
Two months old	Diphtheria, tetanus, pertussis, polio and Haemophilus influenzae type b (DTaP/IPV/Hib)	One injection (Pediacef)
	Pneumococcal (PCV)	One injection (Prevenar)
Three months old	Diphtheria, tetanus, pertussis, polio and Haemophilus influenzae type b (DTaP/IPV/Hib)	One injection (Pediacef)
	Meningitis C (MenC)	One injection (Neisvac C or Meningitec or Menjugate)
Four months old	Diphtheria, tetanus, pertussis, polio and Haemophilus influenzae type b (DTaP/IPV/Hib)	One injection (Pediacef)
	Pneumococcal (PCV)	One injection (Prevenar)
	Meningitis C (MenC)	One injection (Neisvac C or Meningitec or Menjugate)
Around 12 months	Haemophilus influenzae type b, Meningitis C (Hib/MenC)	One injection (Menitorix)
Around 13 months	Measles, mumps and rubella (MMR)	One injection (Priorix or MMRvaxPro)
	Pneumococcal (PCV)	One injection (Prevenar)
Three years four months to five years old	Diphtheria, tetanus, pertussis and polio (dTaP/IPV or DTaP/IPV)	One injection (Repevax or Infanrix-IPV)
	Measles, mumps and rubella (MMR)	One injection (Priorix or MMRvaxPro)
Girls aged 12-13 years	Human Papillomavirus Vaccine (HPV)	3 injections given at 0,1-2 month and 6 month intervals (Cervarix).
Thirteen to 18 years old	Tetanus, diphtheria and polio (Td/IPV)	One injection (Revaxis)
	Meningitis C, MMR	If no record of previous immunisation
At Risk groups	BCG (protects against tuberculosis)	

2. Hand hygiene

Hand hygiene is important in preventing the spread of many infections including skin, nose, throat, eye and stomach or bowel infections.

Provision of adequate and accessible hand washing facilities is crucial. Pleasant liquid soap in wall mounted dispensers, water at temperatures not too hot or cold and paper hand towels encourage people to wash their hands.

Hand washing is always essential after going to the toilet and before eating, and must be supervised in young children.

Hand washing with warm water and soap (preferably liquid soap) is recommended as follows:

- ◆ if hands are visibly soiled
- ◆ immediately after hands have been contaminated with respiratory secretions (e.g. sneezing), blood, faeces, urine or other body fluid (e.g. vomit).
- ◆ before serving food
- ◆ after going to the toilet
- ◆ after handling animals

Procedure for hygienic hand washing

Wet both hands before application of soap. Follow the technique below for 15-30 seconds ensuring that each step consists of at least 3 strokes backwards and forwards.



Wet hands thoroughly before applying soap



Rub palm to palm



Right palm over back of left hand and left palm over back of right hand



Palm to palm, fingers interlaced



Backs of fingers to opposing palms with fingers interlocked



Rotational rubbing of right thumb clasped in left palm and *vice versa*



Rotational rubbing backwards and forwards with clasped fingers of right hand in left palm and *vice versa*



Rinse and dry hands thoroughly

Special attention should be paid to fingertips, thumbs and other areas of hands likely to contact a contaminated site. Hands should be rinsed in clean water. Care should be

taken to dry the skin with paper towels to avoid skin damage. The poster below is suitable for younger children.



3. Cleaning, disinfection and suitable facilities

A clean (free from dust, dirt and grease) and dry environment poses little or no threat of infection to healthy adults and children.

Cleaning with detergent and water is normally all that is needed as it removes the majority of germs that can cause disease. Disinfection reduces the number of germs still further and is carried out after adequate cleaning when there is a particular risk of infection. A 0.1% Hypochlorite solution is ideal (for example Milton diluted as suggested on the bottle). For example when there is an incident of environmental contamination or during an ongoing outbreak of diarrhoea and vomiting.

Colour coding of mops and cloths to ensure that different equipment is used for toilets, kitchen and other areas is **recommended**. (www.nrls.npsa.nhs.uk) For example:

Red – bathrooms, washrooms, showers, toilets, basins and bathroom floors, sluice, nappy change areas.	Blue – General areas including offices, classrooms, basins in public areas	Green – catering departments, kitchens, food service areas
-------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------	------------------------------------------------------------

Toilet areas: Toilets in schools and nurseries should be of the correct size for the children (apart from staff toilets). Small children have to slide forward to get off adult size toilets which may result in the seat becoming smeared with urine or faeces. Children should be encouraged to ask for help if needed. Toilet seats, flush handles, wash hand basins taps and toilet door handles should be cleaned at least daily and when visibly dirty. Standard detergent and warm water is ideal for cleaning. During outbreaks disinfection after and in addition to cleaning should be considered using a hypochlorite disinfectant such as Milton (follow instructions on the bottle).

Nappy changing: The nappy changing area should be close to running water and waste disposal. The area should be situated well away from food preparation, serving and eating areas. The surface of the nappy changing area should be of impermeable material that is easily cleaned with detergent and water between use and can be disinfected with a suitable disinfectant hypochlorite solution such as Milton.

Sluice: A sluice type sink is useful for emptying potties and a separate sink for hand washing is advised.

Potties: After use potties should be emptied in a sluice area (if possible) and then washed with detergent and hot water, rinsed and dried. Named potties are useful in cutting down the risk of spreading infection. The use of scrubbing brushes for cleaning potties is not encouraged as they can damage the surface, lead to contaminated spray and add to the risk of infection.

4. Infection Control Guidance for Toys

Toys can provide comfort and diversion to a child who is in an unfamiliar environment. Toys may also be a necessary part of learning through play.

The following provides general guidelines for selection and cleaning of toys used in schools, nurseries or crèches. All child care settings must have established protocols specifying when, how and by whom toys are cleaned.

Toy selection and cleaning

Safety should be your main consideration when selecting toys.

Staff should recognize that toys are objects that are capable of carrying infectious microbes (germs). They can spread microbes (germs) from child to child efficiently because children handle them thoroughly and then, without first washing hands, touch their eyes and /or nose, behaviour shown to result in transfer of respiratory viruses, or suck fingers or eat food, which can transmit enteric pathogens. Children may also mouth a toy resulting in additional risk for transmission of some organisms. Toys for general use should be easily cleaned and decontaminated. Soft fabric toys should be discouraged because of the difficulty in cleaning them.

Toys should, ideally be washed and disinfected between use by different children. When this is not practical, they should be cleaned as frequently as possible, at a minimum of once per day.

- ◆ Visibly soiled toys must be removed from use until cleaned.
- ◆ There may be times when it is necessary to suspend certain types of communal play (e.g. sand or water play) to help prevent the spread of specific infections.
- ◆ Identify who in your area will be responsible for the daily cleaning of toys.
- ◆ Keep a checklist to ensure all toys and play equipment are cleaned regularly.
- ◆ Replace soft modelling materials and dough regularly.
- ◆ Remember to wash your hands after handling contaminated toys.
- ◆ If soft toys cannot be avoided launder in a washing machine, taking care to follow the manufacturers washing instructions.
- ◆ Protect sandpits (indoor and outdoor) from contamination by using a cover. Sandpits make tempting toilets for animals and are an ideal medium for transmission of germs such as *Campylobacter*.

Quick check

DO

- ✓ Ensure that you have toys that can be cleaned
- ✓ Check toys regularly for rough edges and breaks and discard any damaged toys
- ✓ Remove dust regularly. Dust can trigger asthma attacks and harbour germs
- ✓ Clean hard/plastic toys by washing them with warm water and detergent, followed by thorough rinsing and drying
- ✓ Clean and disinfect toys during an outbreak of illness
- ✓ Immediately clean and disinfect toys that are contaminated with body fluids (e.g. blood, nasal and eye discharge, saliva, urine and faeces)
- ✓ Disinfect hard/plastic toys by wiping with alcohol. Ensure alcohol has fully evaporated before giving the toy to the child
- ✓ Store toys in a clean container or cupboard
- ✓ Destroy contaminated soft toys

DON'T

- X allow children to take toys into the toilet area
- X allow pets to share toys or the play area
- X put toys into storage if they are dirty

5. Dealing with spills of body fluids

Clean all body fluid spills up promptly.

It is good practice to wear well fitting disposable latex gloves when dealing with all body fluids from any source.

Avoid contact or splashing into eyes, mouth or any broken skin sites. Have any cuts or abrasions covered at all times with waterproof dressings.

Clean up with warm soapy water and dispose of carefully, preferably with disposable cloths.

Consider disinfecting the dry clean surface with 0.1 % hypochlorite solution afterwards, by wiping over, then rinsing and drying.

6. Use of protective clothing

Under Health and Safety Legislation, employers are required to ensure the adequate provision of the correct protective clothing for staff. Basic protective clothing is required when dealing with incidents where contact with body fluids or blood is anticipated.

It is recommended that single-use; disposable plastic aprons and non-powered low-protein latex gloves should be worn for tasks where there is a risk of splashing blood or other body fluids onto clothing. This is whether through direct contact with children or contact with contaminated clothing, toys or equipment (e.g. nappy changing, cleaning potties) and whether a child has an infection or not.

Latex can cause sensitisation in certain individuals. For those who are unable to wear latex, non-latex gloves such as vinyl or neoprene should be made available. Any synthetic vinyl gloves used must conform to European Community Standard (CE marked). All vinyl and latex gloves used must be non-powdered. Further information about the risk assessment for latex use in the workplace is available on the HSE website – www.hse.gov.uk

Polythene gloves must never be used for procedures dealing with blood/body fluid e.g. nappy changing procedure.

Disposable gloves and aprons must be disposed of after each task into a designated waste bag. **Never use protective clothing for more than one child.**

7. Management of cuts/abrasions and spills of blood

There is a very small risk of infection with certain blood-borne viruses (Hepatitis B and C, HIV) to staff and children when bleeding occurs during an accident or sport.

If certain precautions are taken the risk is minimised:

- Wear single use well fitting disposable latex gloves whenever in contact with blood (washing grazes, dressing wounds, cleaning up blood after an accident) and wear a disposable plastic apron if possible.

- Carefully cleanse the wound under running water or using a fresh sachet of normal saline from a first aid kit. Avoid splashing. Dab carefully dry.
- Children and adults should have all exposed cuts and grazes covered with waterproof plasters.
- Cover any blood spillage on hard surfaces with paper towels, then (if the surface allows) gently apply a 1% hypochlorite solution (e.g. Milton – follow instructions on the bottle), avoiding splashing. Allow to stand for 10 minutes then clean the area with warm water and detergent.
- If the surface would be damaged by hypochlorite (e.g. soft furnishings) wash with detergent and water.
- At sports events, the sponge or cloth used to mop blood from one child must never be returned to a bucket of water or used on another child.
- If someone suffers a bite, scratch or puncture injury that may have introduced someone else's blood or a splash of blood to the eye, area of broken skin or mouth. Rinse well with water and seek medical advice urgently.

8. Management of human and animal bites

Most bites from young children do not break the skin and do not need to be seen by a doctor.

Initial assessment:

Initial assessment should include whether the bite has broken the skin. Document who was bitten, by whom, the timing and nature of the bite. Consideration should be given to the possibility of existing infections or other medical conditions in both parties.

First aid:

Following a bite the most important thing to do is to clean the wound immediately. Remove any foreign bodies (such as teeth) from the bite, and run warm tap water over the wound for 10 minutes. Encourage the wound to bleed by gently squeezing it, unless it is bleeding freely. Cover with a waterproof dressing. If the biter has blood in their mouth they should swill it out with tap water.

When to seek medical attention:

Medical attention should be sought for all but the most minor animal bites. However, even some minor looking cat bites can penetrate deeply and become infected. Human bites have a much higher chance of causing infection, medical attention should be sought before waiting for any symptoms of infection to appear.

9. Management of contaminated needles and sharps injuries

Some children, staff or carers may require medication using a hypodermic needle. Once used, these needles may become contaminated with blood and there is a risk of accidental injury to others if not handled and disposed of correctly.

Preventing accidental injury.

Action	Rationale
Always use an approved British Standard sharps container	To prevent needles being discarded inappropriately.
Ensure that it is correctly assembled and labelled	Prevents the container being disassembled and spillage of contents. Labelling shows identification in the event of a spillage
Dispose of needles directly into the sharps container	To reduce the risk of injuries whilst carrying needles
Never re-sheath needles	Reduces the possibility of injury
Do not fill the container more than 2/3 full before sealing and arranging disposal of the container	Reduces the possibility of the container bursting if dropped or of needles protruding and therefore the possibility of injury

In Cornwall sharps bins can be purchased from the Environmental Services Team Tel: 01872 253813. Collection and replacement bins can be arranged through this office at a charge. An information leaflet about services is available from this number. Alternatively, sharps bins may also be available from the GP, Health Centres and some council offices. Within Devon contact your local council for further information as each area differs in its arrangements with private waste companies. However, most diabetic patients will provide a sharps bin for their own use when out of the home situation.

Action to take following a sharps injury (see also section 7 & 8)

1. Encourage the injury to bleed (**NOT** by sucking it)
2. Wash the injury under running water
3. Cover with a waterproof dressing
4. Report to a senior member of staff
5. Record in the incident book
6. Contact GP or visit A&E, who will assess for risk of blood borne viruses

The injured person should visit A&E or contact their GP as soon as possible. Blood may need to be taken from the injured party and the source (if known). Specimens should be sent to the laboratory with minimum delay. Depending on the level of risk identified preventive antibiotics may be prescribed.

In the event of an injury being sustained from a discarded needle in the community e.g. on the beach, follow steps 1&2 if possible and attend A&E as quickly as possible. It is not possible to quantify the risk of infection from such an injury but it is important to bear in mind that an unknown risk does not equate to high risk. The doctor in A&E will assess and advise on further management.

10. Guidelines on farm and countryside visits including reducing the risk of Salmonella infection from reptiles

Farm visits and risks

Visiting a farm is an enjoyable and educational experience for many people, particularly children. However, such visits can never be free from all risks. Farm animals, even those that look clean and healthy, carry infections that can be harmful to people.

The bacterial infection *Escherichia coli* O157 (known as *E. coli*) is a particular health risk, especially for children under five, as they are more vulnerable to this infection and more likely to develop serious illness once infected.

Many animals can carry *E. coli* O157 infection, even when they appear healthy, and it should be assumed that all cattle, sheep, goats and deer will be carrying *E. coli* O157.

When an animal is infected with *E. coli* O157 the bacteria will be in the animal's droppings and will be on the animal's body, fences and surfaces around the farm. Touching animals, fences and other surfaces can thus lead to infection, as you may pick up *E. coli* O157 bacteria and accidentally pass them to your mouth. It only takes a small number of *E. coli* O157 bacteria to cause infection.

Washing your hands thoroughly with soap and water immediately after you have had contact with animals will reduce the risk of infection.

What to do when visiting a farm

Following the simple rules listed below will help to keep you and your children safe from *E. coli* O157 and other infections that may be found on open farms. Pregnant women need to take particular care and specifically should avoid contact with lambs and their droppings.

DO NOT

- **Do not** put hands on faces or fingers in mouths while petting animals or walking round the farm.
- **Do not** kiss farm animals nor allow children to put their faces close to animals.
- **Do not** eat or drink while touching animals or walking round the farm. This includes not eating sweets, crisps or chewing gum.
- **Do not** eat anything that has fallen on the floor.
- **Do not** use gels or wipes instead of washing hands with soap and water. Gels and wipes do not remove *E. coli* O157 that is in dirt.

DO

- **Do** wash your hands thoroughly with soap and water after you have touched animals, fences or other surfaces in animal areas.
- **Do** wash your hands thoroughly with soap and water before eating or drinking.
- **Do** remove and clean boots or shoes that might have become soiled and clean pushchair wheels. Then wash your hands thoroughly with soap and water.
- **Do** supervise children closely to ensure that they wash their hands thoroughly.
- **Do** eat and drink in picnic areas or cafes only.

What should I do if I feel unwell after a farm visit?

If you or anyone in your group has sickness or diarrhoea within two weeks of visiting a farm, contact your GP or call NHS Direct on 0845 4647 as soon as possible. If you or anyone in your group, particularly a young child, has bloody diarrhoea, seek immediate emergency medical attention.

Children under five should not attend school/nursery/group childcare until they have been free of sickness or diarrhoea for two days. Tests may be required to confirm that a child is free from infection.

Parents should confirm with their health professional whether it is safe for them to return before the child returns to school or nursery.

Where can I get more information?

Further information on E. coli O157 is available on the Health Protection Agency website at: www.hpa.org.uk

Information for teachers on taking children on farm visits is available on the Health and Safety Executive website at: www.hse.gov.uk

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Sheep carry organisms such as Chlamydia and Listeria in the birth canal. **Pregnant women** must be especially careful not to assist with lambing or handle the birth products of sheep or newborn lambs. If they become infected there is a small risk of serious illness in themselves, their babies and sometimes miscarriage.

By following such advice, farm visits can be enjoyed safely.

Pets in schools and nurseries

In recent years keeping animals in schools and nurseries has become increasingly common. Many of the precautions outlined in the section on management of body waste and body fluids can be applied when animals are kept in schools. However, schools should seek veterinary advice on the care of their animals as well kept and cared for animals are likely to present less of an infection risk.

Reducing the risks of Salmonella infection from reptiles

Most reptiles, including those kept as pets, carry Salmonella in their gut without showing any signs of infection. Salmonella can pass from reptiles to people and cause infection. Salmonella infection can have serious consequences, particularly for babies and small children, and can be fatal.

This section describes the potential risks of infection with Salmonella from a pet reptile and how these risks can be avoided.

Following this advice will help to prevent serious illness and possible deaths from Salmonella infection caught from reptiles.

What is Salmonella infection?

Salmonella are bacteria found in the gut of many animals, including reptiles. The bacteria can spread from the animals to cause illness in people. Though Salmonella infection in people usually causes a mild illness with fever, vomiting, abdominal pain and diarrhoea, more severe illness can occur. Babies and young children are more likely to develop serious illness, which can be fatal.

People can also acquire Salmonella infection from other sources, including: eating and handling raw or undercooked meat, products containing raw egg or unwashed fruit and vegetables; drinking unpasteurised milk or milk products; contact with infected animals, the droppings of infected animals, or contaminated soil.



How is Salmonella passed from reptiles to people?

Most reptiles carry Salmonella in their gut and shed the bacteria in their droppings. These droppings can quickly spread over the reptile's skin, and any surface or object that the reptile comes into contact with can be contaminated with Salmonella, including cages, toys, clothes, furniture and household surfaces.

All reptiles should be presumed to carry Salmonella in their gut, even if they do not show any signs of infection.

Salmonella can pass from reptiles to people when people put anything in their mouth that has come into contact with their reptile – particularly their fingers.

Some reptile foods such as frozen or defrosted mice, rats and chicks can also contain Salmonella and be a potential source of infection for both the reptile and its owners.

Hands can become contaminated when someone handles:

- A reptile.
- Reptile cages or equipment.
- Raw reptile feed, including frozen or defrosted mice, rats and chicks.
- Food can become contaminated when it is:
 - ❖ Handled after someone has touched a reptile and not washed their hands.
 - ❖ Put on surfaces that the reptiles have been in contact with.
 - ❖ Shared with a reptile.

Objects can become contaminated by contact with:

- The reptile or its droppings.
- Contaminated hands or food.

Who is most at risk of Salmonella infection from reptiles?

Babies, children under five, pregnant women, the elderly and those with weaker immune systems are particularly at risk from infection.

Children are particularly at risk because they like to handle and stroke pet reptiles. As a result, their hands and fingers can become contaminated. Babies and small children may be infected by parents and other family members who have handled a reptile and then not washed their hands before feeding or touching the child. They may also become infected from reptile droppings if the reptile is free to roam the home.

If you or other family members become ill with symptoms such as fever, vomiting, abdominal pain and diarrhoea, consult your doctor and inform the doctor that you own/keep a reptile.

Good care of your reptile will reduce the risks of Salmonella infection. It is not possible to eliminate Salmonella from reptiles. Therefore antibiotic treatment of reptiles suspected to be carrying Salmonella is not recommended.

How can I reduce the risk of catching Salmonella infection from my reptile?

Always supervise children to ensure they do not put your reptile, (or objects that the reptile has been in contact with) near their mouths. Ensure children wash their hands thoroughly with soap and water immediately after handling your reptile.

Keep your reptile out of rooms where food is prepared and eaten, and limit the parts of the house where your reptile is allowed to roam freely.

Always wash your hands thoroughly with soap and water immediately after handling your reptile, their cage or any other equipment such as soaking pools.

Always wash your hands thoroughly with soap and water immediately after feeding your reptile, and after handling raw (frozen or defrosted) mice, rats or chicks. Ensure that all surfaces that have come into contact with the defrosting food are cleaned thoroughly afterwards.

Do not eat, drink or smoke while handling your reptile.

Do not kiss your reptile.

Do not use kitchen sinks to bathe your reptile or to wash their cage or equipment. If you use a bathroom sink or bathtub, it must be cleaned thoroughly with disinfectant afterwards.

Dispose of waste water and droppings from your reptile down the toilet instead of a sink or bathtub.



11. Guidance on visits to the beach.



There are enormous benefits to health and well being from children spending time on the beach. In order to enjoy the recreational environments safely, it is wise to be aware of some of the potential adverse health effects, such as sunburn, dehydration and physical injury. In addition, activities such as digging large holes in the sand have the potential to cause serious harm. Look out for the local beach information displayed on beach signs and leaflets. It will provide advice on how to make the most of your visit safely.

Natural waters such as rivers and streams will contain a range of bacteria, viruses and micro-organisms, some of which may cause illness. The number and type of organisms in the water will vary throughout the year depending on the surrounding land use, the size of the catchment area and local weather conditions. Heavy rainfall usually results in an increase in the number of organisms. Should illness occur, the symptoms can vary in severity from a mild stomach upset and rarely to a more serious condition requiring hospital treatment.

Be aware that playing in beach streams carries a risk of illness and you are therefore advised to follow the simple steps below:

- ◆ Do not allow children to drink water from beach streams
- ◆ Avoid the splashing of stream water into mouths
- ◆ Ensure children wash their hands in clean tap or bottled water before eating
- ◆ Observe local beach safety information

12. Common ailments

i. Infectious Diarrhoea and Vomiting (Gastroenteritis) – (see outbreak guidance for schools page 36)

This may be due to a number of agents including:

<i>bacteria</i>	Campylobacter Salmonella Shigella (bacillary dysentery) E. coli 0157
<i>viruses</i>	Rotavirus Norovirus (Norwalk or Winter Vomiting Disease)
<i>parasites</i>	Cryptosporidium Giardia

Anyone with gastroenteritis should be regarded as infectious and kept away from the school until the diarrhoea and vomiting have stopped for at least 48 hours.

Infectious diarrhoea and vomiting (D & V) is usually spread through the faecal oral route (i.e. not washing hands after going to the toilet), either by hand to hand contact, on toys, or indirectly through food or water. Viruses may also be spread through the air in droplets after vomiting or when coughing or sneezing.

The main symptoms are vomiting, diarrhoea and abdominal pain which may occur on their own or in combination. The illness usually lasts only a short time and requires no specific treatment, however should blood be present in stools or a child appears particularly unwell, a doctor should be consulted.

Strict attention to personal hygiene is important to reduce the spread of the disease. Pets or farm animals may be a source (see section 6).

Action

(a) Single case of diarrhoea and/or vomiting

- ◆ exclude from school until **48 hours** after vomiting and diarrhoea has settled. Seek further advice in the case of E.coli 0157 infection.

(b) Cluster of cases of diarrhoea and vomiting

- ◆ contact
 - (i) School Nurse
 - (ii) Consultant in Communicable Disease Control (CCDC) at your local HPU.
- ◆ exclude cases for **48 hours** after symptoms have ceased.
- ◆ remind everyone (staff and children) of the importance of hand washing after using the toilet and before eating.
- ◆ check toilets for the availability of toilet paper, warm water, soap and towels.
- ◆ increase frequency of cleaning/disinfection in toilet areas

- ◆ supervise hand washing in affected classes under 8 years.
- ◆ ensure thorough cleaning of sanitary facilities including WC seats (including underneath the seats), handles and lavatory door handles with soap and water followed by disinfection with dilute hypochlorite (bleach) solution (follow the manufacturer's instructions).
- ◆ discontinue cookery lessons and communal play with sand, dough and water.
- ◆ toys should be washed weekly and when visibly dirty. During an outbreak toys should be washed at least daily, dried and then disinfected with a hypochlorite solution such as Milton. Consider removing soft toys which cannot easily be cleaned during an outbreak (see section 4).

In the event of an outbreak the CCDC will inform the microbiology laboratory, environmental health department and local GPs, and convene an outbreak committee, with representation from school staff to advise on the investigation and control of illness.

ii. Conjunctivitis

Causes red eyes, often with swelling, weeping or visible pus. The infection is readily spread, and affected children should not use communal towels. Strict attention to hand washing reduces spread (see section 2). Children with active infection (pus) should be risk assessed on an individual basis regarding exclusion. Discussion with your local HPU can help with the decision making.

iii. Glandular Fever

Although it can occur in young children, this condition is much more common in adolescents. It usually takes the form of a sore throat with swollen glands in the neck. Full recovery may take some weeks, during which time the person may feel very 'washed out'. There is no specific treatment. This is not a very infectious disease except with close contact (known as "kissing disease") and the child should only be kept away if feeling unwell.

iv. Chickenpox and Shingles

Chickenpox and Shingles are caused by the same virus which causes an itchy rash starting with flat red spots which become raised and filled with fluid. Chickenpox is usually a mild childhood illness. Shingles may follow Chickenpox years later and is caused by a reactivation of the virus.

Chickenpox usually begins with a fever, feeling generally unwell and glassy fluid filled spots spreading all over the body. Shingles is characterised by pain and spots on part of one side of the face or body only. Shingles is not infectious unless you touch the spots; fluid from the spots and crusts from the spots are infectious.

Chickenpox is spread from person to person by virus shed from the nose or throat as droplets or by direct contact. The fluid inside the spot is infectious. Chickenpox is

infectious during its early stages from 1 - 2 days before until 5 days after spots first appear.

The incubation period of Chickenpox is between 13 and 17 days after contact with the infected person. If a pregnant woman who thinks she has not had Chickenpox before has contact with a case she should take medical advice as soon as possible. Depending on the results of a blood test, it may be advisable to have an injection of protective antibody (VZIG).

Although Chickenpox is a mild disease in normal healthy children, it can be fatal in children whose immune systems are impaired in any way such as children on treatment for leukaemia or children who have had a transplant. Many of these children may be immune to Chickenpox or may have had the vaccine and so are protected, but it is important to let their parents know if there is a case of Chickenpox in school as they can then take action, if necessary (this would usually mean an injection of protective antibody from the doctor).

v. Fifth Disease (slapped cheek)

This is a viral disease due to Parvovirus B 19 spread by respiratory droplets. It initially appears as a 'flu-like' illness and then the bright red 'slapped cheeks' rash appears, followed by a reddish rash on the body. This rash may last for up to three weeks. A few children, but most adults, have mild joint pains. It is invariably a mild illness.

By the time the 'slapped cheeks' rash appears, most patients are no longer infectious, and excluding children with the body rash serves no useful purpose. However, pregnant women should try to avoid contact with affected children and see their doctor if they think they have the disease or have had contact with it, as rarely it can affect the unborn child

The illness is commonest in the 4-10 year old age group and outbreaks are common in primary schools in the later winter through to early summer. The incubation period is 6-11 days.

vi. Hand, foot and mouth disease

This disease is caused by a Coxsackie virus, and as the name implies affects hands, feet and the mouth. About 85% of cases are in children. The incubation period is about 3-7 days with the disease lasting about 10 days.

The illness starts with red spots which become small blisters which then ulcerate. The ulcers are painful and can be in the mouth, on the hands or feet. A fever is common, but the disease is usually mild.

The disease is largely spread by respiratory droplets or by the faecal oral route; articles contaminated with discharge from the nose and throat may be infectious. As this particular virus can also live in the bowel, it is important that cases and carers exercise good toilet hygiene (see hand washing, section 2).

In view of the short incubation period and the fact that early cases may be asymptomatic, complete control is not achievable. The best that can be done is children remain off school/nursery until clinically recovered, to disinfect articles soiled with nose and throat secretions and to practise good toilet hygiene. Presence of rash does not indicate infectivity.

vii. Scabies

Scabies is a skin allergy caused by a mite. It can be uncomfortable but is not a serious disease. The main symptom is itching and there may be a rash on the wrists, fingers, feet and body.

It is transmitted by skin to skin contact in a warm environment e.g. by children holding hands. The Scabies mite does not survive for long outside the human body and can not be picked up just from clothes.

Treatment: Lotions can be purchased from a chemist or obtained on prescription from the doctor. It is important to follow the instructions on the bottle.

The whole family should be treated at the same time even if only one person has obvious Scabies. If more than one child in a class has Scabies and it appears that transmission may be taking place at school, then it is important to treat the class, in which case advice should be sought from the school nurse or health visitor and the CCDC should be informed.

Children can return to school on the day after they have been treated.

viii. Molluscum contagiosum

Molluscum contagiosum is a skin disease with small lumps caused by a virus. Small pale pearly raised spots may occur anywhere on the body except the palms and soles. It is mildly infectious and transmitted by direct contact with the lesions. Incubation period is about 1 month but may be up to 6 months.

There is no need for an infected person to stay off school, but direct contact with the lesions should be avoided to prevent spread.

Treatment: The lesions usually disappear after a few months but may persist, in which case they can be easily treated by the doctor.

ix. Head Lice

Lice are small wingless insects which live on the human scalp. They may cause itchiness. They are passed from person to person, usually by head to head contact. Although several cases may occur in the same class at school, they should be considered to be a community problem because they may spread to any member of a family. They can be found in any of the following forms:

lice (flesh coloured insects about 3mm long)

live eggs (very small, dull and flesh coloured, cemented just above the roots of individual hairs)

old egg shells(white and shiny harmless shells found away from the scalp)

lice droppings (black dots on pillows)

Detection:

Lice are most easily detected by combing wet hair with a fine toothed comb. If no lice can be found, there is no need to consider applying head lice treatments, even if cases have been reported in a school. If lice are detected there are three options to deal with the problem (a combination is most effective).

Treatment:

“*Wet combing method*”: Head lice may be cleared over a 2 week period, as follows:

Wash the hair in the normal way, with an ordinary shampoo;

Using lots of conditioner, and while the hair is very wet, comb through the hair from the roots to the ends with a fine comb. Make sure the teeth of the comb slot into the hair at the roots of every stroke;

Clear the comb of lice between each stroke;

Repeat this routine every 3 days for 2 weeks, so that any lice emerging from eggs are removed before they mature and spread.

Using lotions:

Only those with live lice should be treated.

Lotions are preferable to shampoos. These can be bought from the chemist or obtained on prescription.

It is important that the instructions on the bottle are followed very carefully and that all the family and close contacts are checked and treated, if necessary.

Asthmatics and those with skin problems such as eczema should use water based products, or Lyclear. Pregnant and breast feeding mothers and children under 6 months should be treated under medical supervision.

Non parasitological alternative treatment:

If you wish to use a non parasitological treatment then the choice for adult lice is Dimeticone (Hedrin). It works by coating the head lice and interferes with the water balance of the lice, killing it. It is less active on eggs and should be repeated after seven days.

Exclusion:

People with head-lice do not need to be excluded, including if the combing method is used (as any newly emerging lice do not mature and spread between treatments). Treatment should be started on same day, but child does not have to be sent home from school.

Further advice:

Seek advice from your school nurse. Leaflets are available from your nurse, or from the Health Protection Unit.

x. Impetigo and Erysipelas

Impetigo and Erysipelas are bacterial skin infections caused by Staphylococci and Streptococci. Impetigo commonly affects the face, particularly around the nose and mouth causing weeping lesions which form crusts. Young children may be generally off colour. Erysipelas causes the skin to become swollen, red and blistered, and is usually associated with a fever.

These are infectious while the spots are wet and discharging pus. Antibiotic treatment is helpful; separate towels and thorough hand washing are important in preventing transmission (see section 2). Children can return to school once they are well and the lesions are crusted or healed or 48 hours after commencing antibiotic treatment.

xi. Panton-Valentine Leukocidin (PVL)

What is PVL?

Staphylococcus aureus is a 'bug' (a microbe or bacterium) that is a normal part of the skin flora (bacterium and fungi that live on healthy skin). It particularly likes to live on the moist surfaces of the body such as inside the nostrils, the armpits and in the groin area. People in the wider community carry many different strains of *Staphylococcus aureus*. Some strains are more likely to cause infections than others i.e. they are more virulent. Strains that secrete a toxin called Panton-Valentine Leukocidin (PVL) are more likely to cause infections, particularly of the skin.

The number of cases of this strain of *Staphylococcus aureus* has been rising over the past few years. Almost all of the cases identified so far have been in normally fit healthy people, including children attending nurseries and/or schools

Guidance for reducing the spread of PVL-*Staphylococcus aureus* (PVL-SA) in schools and nurseries

General Measures

1. Hand hygiene should be facilitated by providing adequate washing facilities and supplies. Liquid soap dispensers (not soap bars) should be used and paper towel dispensers should replace cloth towels.
2. Children should wash hands after using toilets, before eating and drinking, before and after use of the gymnasium and other communal sports activities, and whenever hands are contaminated or soiled.
3. Open wounds should be covered with plasters.
4. Children and staff with wounds that cannot be contained by bandages should be excluded from schools and nurseries
5. Common areas in school/nursery (e.g. toilets, locker rooms, dining room etc), should be kept clean by following regularly scheduled cleaning protocols.

For individual cases with PVL-SA infection

1. Individuals can go to school provided they feel well, are of an age where they can understand the importance of good hand hygiene, and the infected skin is covered with a clean dry dressing able to stay dry and in place until the end of the school day.
2. Individuals should not be at school if they have a boil that requires drainage or a newly discharging boil or abscess, the leakage from which cannot easily be contained.
3. Individuals should not take part in contact sports or use communal gym equipment until their skin lesion has totally healed.
4. Those with eczema or a more generalised skin condition should remain off school until treatment has been completed and/or discussed with local HPU.

Increasing numbers of skin infections

If it appears that infection is spreading between children, the local Health Protection Unit should be contacted.

13. Other diseases

i. Meningitis

Meningitis is inflammation of the meningeal coverings of the brain. Common causes include bacteria or viruses.

- ◆ ***Viral meningitis:*** no treatment of contacts is necessary and the case is not a risk to others. This is usually a rare complication of any of a number of viruses that normally cause other diseases, such as mumps or glandular fever.
- ◆ ***Bacterial meningitis*** in school-aged children is usually due to Meningococcal infection. There is a small increased risk to people who have had particularly close and prolonged contact with cases of Meningococcal infections, so contacts are traced and given preventive antibiotics and sometimes vaccine (depending on the strain). The increased risk is usually considered only to affect the immediate family of a case. Contacts of other types of bacterial meningitis such as Pneumococcal meningitis are not at risk, as these diseases are largely a matter of individual susceptibility.

Meningococcal disease

Meningitis (infection of the covering of the brain) or septicaemia (blood poisoning) due to Meningococci cause concern in school aged children. Usually only one case will occur in a school in any one year, and the only people at risk from the case will be brothers and sisters, parents and boyfriend or girlfriend. The risk of passing on Meningococci is associated with the prolonged, close contact that occurs in a family, at home. Very rarely, a second case of Meningococcal meningitis will occur in a school. In such a situation, it may be necessary to give antibiotics (and sometimes vaccine) to other pupils and staff.

Meningococcal group C vaccine was introduced in October 1999. Most children have now been immunised against group C and it is very unusual for this strain to cause disease in anyone under 18 years of age. Group B, for which there is no vaccine at present, causes the majority of cases.

In the past, antibiotics were offered to nursery school or playgroup contacts of isolated cases of Meningococcal disease. There is now good evidence showing that these contacts do not benefit from antibiotics; the antibiotic used may eradicate protective organisms and so be detrimental. Preventive antibiotics are only recommended in the rare event of two cases occurring in the same school or playgroup, within one month.

The Consultant in Communicable Disease Control (CCDC) will be happy to assist the head teacher in the composition of letters and the provision of advice.

Action for schools

- ◆ inform CCDC (who should already be aware of the case)
- ◆ inform school nurse/ health visitor
- ◆ discuss composition of letters to parents with CCDC
- ◆ discuss need for antibiotic prophylaxis with CCDC

Signs and symptoms



In adults and children.

In babies.

Taken from signs & symptoms cards copyright Meningitis Trust.

Used with their kind permission.

Copied from their web site on the 29/6/01.

Meningitis Trust Helpline number: 0845 6000 800.

Website: www.meningitis-trust.org.uk

Action for a child taken ill in school

If you suspect Meningitis/Meningococcal septicaemia contact a GP immediately

Describe the symptoms carefully, explain why you are worried.

If your doctor is not available go straight to the nearest Accident and Emergency Department.

Early treatment with antibiotics is vital.

Do not wait for the rash, it may be the last symptom to appear and may not appear at all.

ii. Hepatitis or Jaundice

- ♦ usually viral (Hepatitis A, B, C, glandular fever)
- ♦ commonest form in schools is Hepatitis A which may cause loss of appetite, feeling 'off colour', with or without jaundice. It is often asymptomatic in children. Spread is by the faecal oral (hand to mouth) route and thus good hand hygiene is essential in prevention.

Prevention: Hand washing essential (section 2.ii)

Immunoglobulin (a type of immunisation) or vaccine may be used to control outbreaks (under guidance of CCDC).

- ♦ Hepatitis B and C may be blood borne (Hepatitis B is also sexually transmitted). There is no risk to others, as long as blood spills are dealt with appropriately, if possible by a designated first aider (see section 5).

iii. Tuberculosis (TB)

- ♦ children are rarely infectious (usually diagnosed when an adult, relative or close friend is found to have TB)
- ♦ exclusion from school is not necessary once treatment has been taken for 2 weeks.
- ♦ adults (staff, parents) with TB **may** be infectious, hence children in close contact may need medical assessment (discuss with CCDC).

iv. HIV and AIDS

The Acquired Immunodeficiency Syndrome (AIDS) is caused by infection with the Human Immunodeficiency Virus (HIV). HIV is mostly spread by sexual contact with an infected person, by sharing an infected needle or by receiving blood from an infected person. The latter is extremely unlikely to occur now in this country as all blood is carefully screened. If a pregnant woman is infected she may pass the infection to her unborn child.

There is no risk to other children or staff from an HIV infected child attending a school provided standard good hygiene practices are in place (see section 5).

Health education about HIV is of vital importance and should be included in the curriculum for older children, along with an endorsement of life-long patterns of safer sexual behaviour and information about the physically and socially damaging effects of drug misuse.

v. Whooping Cough (Pertussis)

The early stages of whooping cough, which may last a week or so, can be very like a heavy cold with a temperature and persistent cough. The cough becomes worse and usually the characteristic 'whoop' may develop. Coughing spasms are frequently worse at night and may be associated with vomiting. The whole illness may last several months. Antibiotics rarely affect the course of the illness but can reduce the period of infectivity. This infection can cause serious complications especially in very young children or people with diseases causing immunosuppression. Vulnerable household contacts may benefit from preventive antibiotics.

vi. Measles

Measles is now a very rare disease as a result of Measles Mumps Rubella (MMR) immunisation at 13 to 15 months, and the MR (Measles Rubella) campaign in 1994. However measles is highly infectious and can be a serious disease. The new pre-school booster is important and a high uptake should prevent the need for mass immunisation campaigns in the future.

vii. Rubella

Rubella (German Measles) is now a very rare disease in school aged children. It now most commonly affects men in their 20s because until the 1994 Measles Rubella campaign only girls were immunised (the MMR was introduced in the late 1980s). Rubella is usually a mild illness, but can have very serious effects on the unborn child if a woman is infected in pregnancy.

viii. Mumps

Mumps has become very uncommon since the introduction of the MMR. This was previously an important cause of viral meningitis in children.

14. Guidelines on food hygiene for childminders¹

Legal Requirements

If meals are being prepared for children then registration as a Food Business is required. Application forms for registration can be obtained from the District Council Environmental Health Department.

Compliance with the Food Safety (General Hygiene) Regulations 1995 is required to ensure that prepared food is safe, supplied hygienically and all hazards are controlled.

Food handlers should also attend an approved food hygiene course or hold a Basic Food Hygiene Certificate or equivalent.

Kitchen Standards

A good domestic standard of kitchen equipment and facilities is acceptable. A double/twin sink for correct wash and rinse/sterilisation procedures is expected but a single sink used in conjunction with a dishwasher is satisfactory. In addition, a separate wash hand basin (with soap and hand drying facilities) and both hot and cold water supplies is a requirement. This should ideally be installed in the kitchen but if you have one in a utility room or ground floor toilet then this is also acceptable. It is recommended that the use of a sanitizer (chemical bactericidal cleaning agent) be used on work surfaces, cutting boards and all equipment in contact with food.

A household fridge set to work at less than 8°C is necessary and a simple plastic thermometer stored in the appliance will indicate the correct working temperature or that the thermostat should be adjusted.

A washing machine in the kitchen is acceptable but the laundering of clothes should be carried outside the food preparation times.

Avoid carpeted kitchens, artex ceilings and ensure that pets and pet foods, potted plants and cleaning chemicals/materials are kept out of the food room generally but particularly during food preparation

Food Handling

It is important that you are up to date with food handling practices. You may wish to contact your local environmental health department for advice.

In addition, you should make sure hands are washed and utensils and surfaces thoroughly cleaned before preparing food, and, that food is:

- ◆ stored at an appropriate temperature;
- ◆ not out of date;

¹Advice for schools and nurseries is available from www.food.gov.uk

- ◆ thoroughly cooked or reheated;
- ◆ partly eaten or used food is not re-offered;
- ◆ commercial baby foods are stored and cooked following the manufacturer's recommendations;
- ◆ micro waved food is allowed to reach the appropriate temperature before it is given to the child.

Food handlers with diarrhoea or vomiting should not handle or prepare food until 48 hours after full recovery.

15.Exclusion from school

Guidelines for the exclusion from day nursery and school, of children and household contacts suffering from an infectious disease

Disease	Usual Incubation Period (days)	Infectious Period (days)	Minimum period of exclusion of patients from school, day nursery, playgroup, etc.	Exclusion of family contacts who attend playgroup, day nursery or school
Campylobacter	3-5	Whilst organism is in stools (<7 weeks) but mainly whilst diarrhoea is present	Until clinically fit with no diarrhoea for 48 hours	None
Chickenpox	13-21	From 1-2 days before, to 5 days after appearance of rash	5 days from onset of rash	None
Shingles	Usually years after chicken pox	Blisters contain Chicken Pox virus (Varicella Zoster)	Exclude only if rash is weeping and cannot be covered	None
Colds /Flu	1-3 days	while symptoms persist	while child unwell	None
Conjunctivitis	2-3 days	during active infection (with pus and crusting)	Single cases: if child is well no exclusion necessary	None
Cryptosporidium	3-11	Whilst cysts are present in stools (several weeks) but mainly whilst diarrhoea is present	Until clinically fit with no diarrhoea, for 48 hours. Exclusion from swimming is advisable for two weeks after the diarrhoea has settled.	None

Disease	Usual Incubation Period (days)	Infectious Period (days)	Minimum period of exclusion of patients from school, day nursery, playgroup, etc.	Exclusion of family contacts who attend playgroup, day nursery or school
Diphtheria	2-5	Whilst the organism is present in nose and throat	Exclusion is essential, Until clinically fit and bacteriological examination is clear	7 days and until bacteriological result is negative
Ear Infections/Sticky Ears	may be chronic (long term problem)	usually not infectious	None	None
Fifth Disease (Slapped Cheek)	4-20	1 week+ before the rash develops	None, however until clinically well. Presence of rash does not indicate infectivity	None
Food Poisoning (including Salmonellosis and Shigella sonnei but not E coli 0157- seek further advice)	varies according to cause	Varies according to cause- usually whilst symptomatic (may need to consult CCDC)	Until clinically fit with no diarrhoea or vomiting for 24 hours (48 hours for everyone or unable to maintain good personal hygiene, and during outbreaks)	None
German Measles (Rubella)	14-21	From 7 days before to 5 days after onset of rash	6 days from appearance of rash	None. If pregnant woman is in contact, she should consult GP.

Disease	Usual Incubation Period (days)	Infectious Period (days)	Minimum period of exclusion of patients from school, day nursery, playgroup, etc.	Exclusion of family contacts who attend playgroup, day nursery or school
Giardia Lamblia	7-28	Whilst cysts are present in stools but mainly whilst diarrhoea is present	Until clinically fit with no diarrhoea after treatment	None
Glandular Fever	4 - 6 weeks	Once symptoms have cleared risk is small apart from very close contact e.g. kissing	Until clinical recovery	None
Hand, Foot and Mouth Disease	3-5	Probably from 2-3 days before and up to several weeks after onset of symptoms (virus in stools)	Until clinically well. Presence of rash does not indicate infectivity	None
Head and Body Lice	eggs hatch in 1 week	as long as live lice or eggs	None: treatment should be started on day head lice found. No need to send child home	None. Others affected in household should be treated at same time
Hepatitis A	2-6 weeks	From 7-14 days before to 7 days after onset of jaundice	7 days from onset of jaundice (or seven days after symptom onset if no jaundice)	Adults in family should discuss prophylaxis with GP
Hepatitis B(see text)	2 weeks to 6 months	not infectious under normal conditions	until the child feels well	None

Disease	Usual Incubation Period (days)	Infectious Period (days)	Minimum period of exclusion of patients from school, day nursery, playgroup, etc.	Exclusion of family contacts who attend playgroup, day nursery or school
Herpes Simplex (Cold Sore)	2-12 days	during infection	None	None
HIV infection (see text)	variable	not infectious under normal conditions	None	None
Impetigo/ Erysipelas	Impetigo: 4-10 days Erysipelas: 1-3 days	as long as lesions are wet and pus is present	until lesions are crusted or healed, or 48 hours after commencing antibiotic treatment.	None
Measles	7-14 days	From a few days before to 4 days after onset of rash	4 days from onset of rash	None
Meningitis (see text)	varies, depending on cause (Meningococcal is less than 7 days-usually 3-4 days)	see text	Until clinical recovery	None
Molluscum contagiosum	2-7 weeks	As long as lesions persist	None	None

Disease	Usual Incubation Period (days)	Infectious Period (days)	Minimum period of exclusion of patients from school, day nursery, playgroup, etc.	Exclusion of family contacts who attend playgroup, day nursery or school
Mumps	12-21 commonly 18 days	2 days before onset of swelling to 5 days after	Exclude for 5 days after onset of swelling, Until swelling has subsided (5 days minimum)	None
Poliomyelitis	3-21	Whilst virus is present in stools	Until clinical recovery. At the discretion of CCDC	At the discretion of CCDC
Ringworm: Tinea Capitis (head), Tinea Corporis (body), Athletes Foot	4-10 days	as long as rash present	none (treatment recommended)	None
Scabies	few days to 6 weeks	until mites and eggs are destroyed by treatment	Child can return after first treatment	None. Household should be treated at the same time
Scarlet Fever and other Streptococcal infections	2-5	Whilst organism is present in the nose and throat or skin lesion	24 hours after commencing antibiotics.	None

Skin Infection, e.g. PVL or MRSA			Please discuss with local HPU	Good hygiene, in particular hand washing and environmental cleaning are important to prevent spread.
Threadworms	2-6 weeks to complete life cycle	when eggs are shed in faeces	none once treated	None. Household should be treated at same time
Tuberculosis	4-6 weeks	whilst organism is present in sputum	For 2 weeks following start of treatment	None. Close contacts may need to be screened
Typhoid and Paratyphoid Fever	Typhoid: 7-21 Paratyphoid: 1-10 days	Whilst organism is present in stools or urine	At the discretion of the CCDC	At the discretion of the CCDC
Verrucae (plantar warts)	2-3 months	as long as wart present	None	None
Whooping Cough	7-10	From 7 days after exposure to 21 days after onset of severe coughing fits	Five days after commencing antibiotic treatment or 21 days from onset of illness if no antibiotic treatment	None



Viral Gastroenteritis (Norovirus) Outbreak Guidance for Schools / Nurseries

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Introduction

This pack provides important information on Infective Viral Gastroenteritis for schools / nurseries. The most common cause of such outbreaks is a virus called Norovirus (formerly Norwalk virus). Outbreaks caused by other microbes can occur and it is important in every suspected outbreak to seek expert advice from the start. We hope that this information will raise awareness of the importance of early reporting of two or more linked cases of diarrhoea and vomiting or **more cases than you would usually expect**. Its aims are to ensure that staff is aware of their responsibility to act promptly if infective gastro-enteritis is suspected in either themselves or their pupils. Do not wait for several cases of sickness and diarrhoea to occur before you report it. Put controls into place, prompt action could prevent a major outbreak of infection. Ensure that information about what to do in a suspected outbreak of infective diarrhoea is cascaded to key staff.

Thank you for your co-operation.

For more information regarding infections in schools / nurseries, refer to the Spotty Book. If not available, an electronic copy can be obtained, telephone your local office to obtain a copy.

What is Norovirus?

Norovirus is a virus, which infects the gut. It causes a self-limiting, highly infectious gastroenteritis, which typically lasts for a day or two but may occasionally last for up to a week. It is not a serious illness in healthy people but can be very disruptive in large institutions such as schools. Symptoms can be a combination of any of the following:

- ◆ Nausea
- ◆ Vomiting
- ◆ Abdominal pain
- ◆ Diarrhoea
- ◆

It is sometimes associated with a flu-like illness e.g. aching joints and limbs.

How is Norovirus spread?

Norovirus is spread from the vomit or faeces of an affected person and may be transmitted to others in the following ways:

Droplets

- ◆ Droplets are formed following vomiting which is often violent and projectile in nature, sometimes without warning
- ◆ Diarrhoea is less of a risk for droplet spread if it is contained in the toilet

Environment

- ◆ The environment becomes contaminated via the hands or from the settling droplets of vomit. Droplets land on work surfaces etc. and are easily transferable via hands to mouth

Food

- ◆ Eating food that has been contaminated by an infected person either directly, vomit droplets or, indirectly contaminated hands also poses a risk of infection

One vomit contains in excess of 30,000,000 viral particles: ingestion of as few as 10 and 100 viral particles may be enough to cause infection. To reduce the risk of transmission it is essential that vomit/ diarrhoea be cleaned up immediately (Appendix 1).

Incubation period for Norovirus is up to 72 hours, but usually 24 - 48 hours.

What you should do? – Staff (including parent helpers, meal time assistants)

- ◆ If you have any of the above symptoms, **do not come to work**
- ◆ Remain off work for 48 hours after the last symptom (exclusion is a legal requirement for food handlers with symptoms)
- ◆ Discuss whether you should submit a stool specimen with your GP/HPU
- ◆ Specimens should be submitted via your GP
- ◆ If symptoms commence during your working day – go straight home
The risk of spread is reduced considerably if contamination of the environment is reduced (see Appendix 1)
- ◆ Inform the Head Teacher
- ◆ Movement of supply teachers and specialist staff between schools may need to be restricted
- ◆ Staff should supervise hand washing of pupils if possible

REMEMBER: being at work with symptoms poses a risk to children and your work colleagues

What you should do? – Pupils

- ◆ Pupils who become ill during the day should be sent home as soon as possible
- ◆ If the child cannot go home they should be kept away from other children if at all possible
- ◆ Parents should be informed verbally that the child should remain off school for 48 hours from the last symptom
- ◆ Parents should consult with their GP whether they should submit a stool specimen from the child
- ◆ The local Environmental Health Officer may also arrange for the collection of specimens from the school or children's' home

In the event of a suspected outbreak at school / nursery:

- ◆ The head teacher or deputy should inform the HPU (01726 627881 or 01803 861807) and the Children's Services Authority (CSA). The HPU will in turn notify the local authority Environmental Health Officer, the hospital microbiology department and local GPs
- ◆ Wear protective clothing - gloves and plastic aprons that can be disposed of immediately following use if cleaning up soiling e.g. vomit
- ◆ Wash hands on removal of gloves and if hands become soiled - maintain scrupulous hand hygiene – wash hands if in contact with an affected child and at other times after using the toilet, before eating or handling preparing food etc
- ◆ Ensure environmental soiling is cleaned up **immediately** (see Appendix 1)
- ◆ Ensure warm water, soap and paper towels are available in the toilet facilities
- ◆ Stop all communal play e.g. sand, water and cooking until the outbreak is over
- ◆ Arrange for toilets and facilities to be cleaned more often to reduce the risk of transmission of the infection via environmental contamination e.g. toilet seats, toilet flush and door handles etc
- ◆ Staff or children who become ill during the day should be sent home as soon as possible and if possible kept away from other children
- ◆ The head teacher will be advised by the HPU to send out a letter informing parents of their responsibility (see appendix 2)

During an outbreak, the HPU will contact the school / nursery regularly to collect information about new cases. Please ensure that the information is documented on the outbreak form (Appendix 3) and is easily located.

Some commonly asked questions about gastro enteritis in schools.

How do we know if it is viral in nature?

Informing the HPU at the start of an outbreak will enable us to assess the likely nature of the outbreak. The following information is important; symptoms, numbers affected, timescales, and dates of onset of illness, duration of illness in affected individuals. Stool samples are important, particularly to rule out more serious causes of infection. If it is thought to be

related to food handlers/food/water then the local environmental health officer at your council will take the lead.

What happens when a child vomits in the food hall?

If possible, the child should be sent home as soon as possible. Any vomit should be cleaned up immediately, disposed of into a plastic bag, secured, and disposed of safely. Under no circumstances should vomit go into the food preparation area as this could pose a threat of further transmission if the environment becomes contaminated. Any children in the immediate vicinity of the vomiting should be offered alternative foodstuffs, as the likelihood is that their food will have been contaminated by aerosol droplets.

Under what circumstances would the school need to be closed?

It would depend on a number of issues e.g. the numbers of children/staff with illness and whether the school can cope. The HPU does not have the power to close the school that decision would be made by the head teacher and the CSA.

Will every area of the school need to be cleaned even if it has not been contaminated?

A risk assessment will be made by the HPU and the head teacher / nursery manager. It is important that a record is kept of the location of where contamination e.g. vomiting occurred. If there are only a moderate number of cases and the areas have been cleaned appropriately (as per Appendix 1), then a thorough general clean will suffice in most cases once the outbreak is deemed to be over.

Appendix 1

THE CLEANING, REMOVAL AND DISPOSAL OF BODY FLUIDS

NB. The current guidance on cleaning up spills and the recommendation from the HPU is detergent and water followed by a standard hypochlorite (0.1%) solution to disinfect (e.g. Milton diluted as detailed by the manufacturer). However there are differing opinions within the local authorities on the choice of products that are used for cleaning. Instructions from the manufacturer should be followed.

Note: All disinfectant solutions must contain 0.1% hypochlorite. (It is important that the product chosen can specifically deal with virus).

Spillages of diarrhoea and vomit should always be attended to as quickly as possible.

- Step 1** Always assess the risk of carrying out the required task before you begin.
- Step 2** Isolate the affected area, for example, with warning cones, if possible.
- Step 3** Make sure that all the protective clothing and equipment you require is available (disposable latex gloves and plastic aprons).
- Step 4** Put on the protective clothing.
- Step 5** Contain the spill, if needs be, by placing disposable wipes/paper towels around it.
- Step 6** Remove the bulk of the contamination with paper towels. The area should be cleaned thoroughly with detergent and water, using disposable cloths, then wiped over using a standard hypochlorite solution **or** the recommended product agreed by your locality, which should also contain 0.1% hypochlorite. Ensure adequate ventilation when using hypochlorite solutions.
- Step 7** Put all disposable items into a plastic bag, consider double bagging if bags are flimsy, tie and dispose.
- Step 8** All re-usable items must be thoroughly cleaned, disinfected and dried before being returned to the correct storage area. The cleaning of such equipment must be carried out in the cleaning equipment sink and never anywhere else.
- Step 9** Thoroughly wash your hands on removal of gloves with soap and water and dry well.
- Step 10** Remove safety cones when the area is dry.
- Step 11** Report any shortfalls in the protective clothing or equipment used for dealing with body fluids to the person responsible for maintaining stock levels.

The disinfectant solution should always be freshly prepared and then discarded when you have finished (in the cleaners sink), the solution may become deactivated after 24hours.

NB: If the spillage has taken place on a carpet, thoroughly clean the affected area using disinfectant (but not hypochlorite). If possible, use a steam cleaner if appropriate, or a carpet extraction machine.

It is important that all visible soiling is physically removed before disinfection.

Once the outbreak is over then a thorough environmental clean should suffice.

It is important that all staff work together to enable the final clean to be performed in a safe, timely manner. Good communication between the HPT, school and cleaning agency etc. is essential.

Before cleaning ensure:

- Areas to be cleaned are emptied of as many children's personal belongings as possible e.g. lunch boxes are taken home, gym kit, coat etc.

It is the responsibility of the school / nursery to ensure soiling (e.g. vomit or diarrhoea) is cleaned up in a timely manner to reduce the risk of further transmission.

Process of Cleaning:

- ◆ Table tops where dust collects
- ◆ Door handles and edges
- ◆ Floors
- ◆ Toilet facilities; including edges of doors, door handles, light switches etc

All areas are to be damp dusted with detergent and water and then a standard hypochlorite solution, or appropriate locally agreed product. This ensures that dust and possible virus particles are wiped away. If necessary and on discussion with the HPU curtains are steam-cleaned insitu unless there are mitigating circumstances and they need to be taken down and washed. Carpets if soiled should be steam cleaned or at least shampooed. (Hypochlorite solution should not be used on carpet or soft furnishings as it may damage the fabric. Please check manufacturer's advice on the product for more information).

Appendix 2 SUGGESTED SCHOOL LETTER



(RELEVANT SCHOOL LOGO)

Date

To: All Parents, Carers and Staff Members of XXXX school

I am writing to let you know that a number of children have recently been absent from school with suspected Norovirus, a common infection which causes symptoms of diarrhoea and vomiting.

I would like to reassure you that Norovirus is generally a mild infection and people usually recover fully within 2-3 days. No specific treatment is needed, but it is important to drink plenty of fluids to prevent dehydration.

As you may already know, Norovirus is highly infectious and spreads easily from person to person, especially in close knit communities such as schools, therefore, we are asking for your help to prevent further illness within the school by following the advice in the checklist below:

If your child develops symptoms of diarrhoea and/or vomiting you should keep them off school and away from other childcare settings such as childminders until they have been symptom free for at least 48 hours.

Good hygiene is important to stop the spread of infection, especially hand washing, frequently and thoroughly with soap and water, particularly after using the toilet and before eating.

Good hygiene in the home will also help prevent spread to other family members. If possible separate toilets and towels should be used and door handles, wash basins and toilet handles should be frequently cleaned.

If symptoms do not resolve after 48 hours or if you are concerned please contact your GP by phone or contact NHS Direct on 0845 46 47.

We would like to thank you for your help with this.

Information leaflets about viral gastroenteritis are available from the school office should parents/carers require further information.

Further information is available on the Health Protection Agency website <http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/Norovirus/>

Yours sincerely

Headteacher

Director of Health Protection Unit

_____ School



Healthy Swimming

Six 'PLEAs' to help protect your swimming water from infection

- PLEASE** Avoid swimming whilst having an upset tummy or diarrhoea and for 2 weeks afterwards. This is especially important for children in nappies.
- PLEASE** Shower thoroughly before entering the pool, including children and babies. Wash your hands after using the toilet or changing nappies.
- PLEASE** Take your children on regular toilet breaks or check nappies often.
- PLEASE** Inform an attendant immediately if a child has had an accident in the pool.
- PLEASE** Children under 3 must wear swimwear with a waterproof layer. Appropriate swimwear may be available at Reception. A normal nappy or just a bathing costume is not sufficient.
- PLEASE** Do not swallow the pool water.

Appendix 5

Useful Contact Numbers

Devon Health Protection Office 01803 861 807

These are the **Environmental Health** Telephone numbers for **Devon**;

East Devon	01395 516 551
South Hams	01803 861 238
Exeter	01392 277 888
Teignbridge	01626 361 101
Mid Devon	01884 255 255
Torbay	01803 208 010
North Devon	01271 388 870
Torridge	01237 428 809
Plymouth	01752 668 000
West Devon	01822 813 600

Cornwall Health Protection Office 01726 627 881

These are the **Environmental Health** telephone numbers for **Cornwall**;

West 1 (Penwith)	01736 336570
West 2 (Kerrier)	01209 616990
Central 1 (Carrick)	01872 224353
Central 2 (Restormel)	01726 223550
East 1 (North Cornwall)	01208 893519
East 2 (Caradon)	01579 341370
Isles of Scilly	01720 422537

