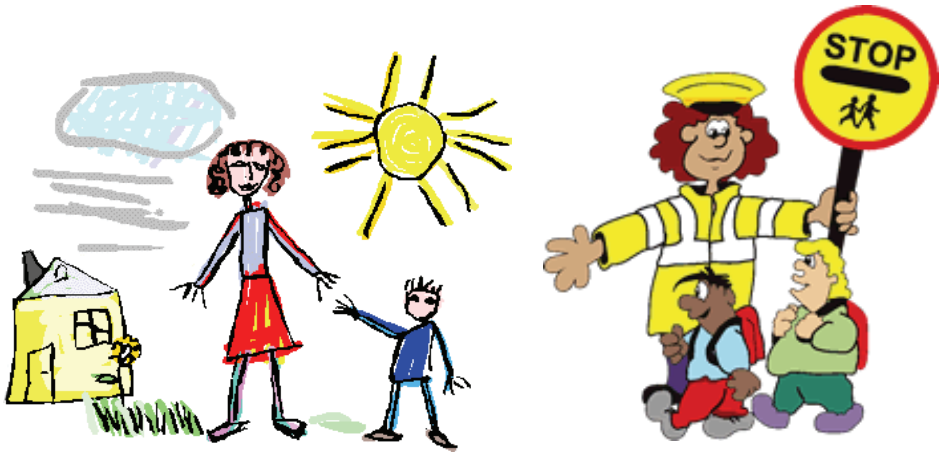
Communicable Disease & Infection Control

Information for school, nursery & childcare settings



This document is to be used in conjunction with the national document 'Infection Prevention and Control in Childcare Settings' (Health Protection Scotland, 2011). Together they provide helpful advice for those working with children in a variety of settings to assist them in providing a safer environment. Information on a range of infections is given but is not intended to diagnose individual cases. This should only be done by an appropriately trained health professional from which advice should be sought if doubts exist about an unwell child.

Readers are encouraged to refer to these guidelines before consulting NHS Borders Public Health Department for specific advice.

a) Contents (this document)

Communicable Disease & Infection Control
- information for school, nursery & childcare settings

b) Contents (supporting national document)

Infection Prevention and Control in Childcare Settings

Full text available from

http://www.documents.hps.scot.nhs.uk/hai/infection-control/guidelines/infection-prevention-control-childcare.pdf

1. Introduction

This document should be read in conjunction with the national document *'Infection Prevention and Control in Childcare Settings'* (Health Protection Scotland, 2011). The latter provides helpful generic information to prevent, or control the spread of infection and communicable disease within Day Care and Childminding settings and sets out procedures to follow, should such an infectious disease incident occur. It does not specifically address schools, children's residential settings or outdoor nurseries. Some general principles will however be of interest to those working in these places.

Primarily, both national and local documents are written for people who work with children in a variety of educational and community care settings.

The immune systems of children are still under development and therefore they can be vulnerable to some infectious diseases. The opportunity to spread infection is greater in settings where children have regular and frequent contact with others. Outbreaks can and do occur and a swift response is needed to prevent further spread.

Having a child, or member of staff, on the premises who is suffering from a communicable disease can pose a threat to the health of others they have close contact with. Parents should be encouraged to inform members of staff if their child has been unwell, to enable appropriate action to be taken and surveillance of the remaining group to take place. Similarly, infected staff have a duty of care to follow occupational health guidelines when deciding their fitness to work.

Risks can be significantly reduced by the following measures:

- Routine immunisations
- Healthy diet and exercise
- High standards of environmental cleanliness and personal hygiene
- Excluding children and adults with *some* infections for a period of time. Many infections however remain undiagnosed because they are mild and cause few symptoms. For some diseases children who appear perfectly well may be chronic carriers of infection.
- Quickly seeking out professional help and treatment

2. Local Contacts

Title	Key contact	Telephone
Local GP		
Health Protection Nurse Specialist		01896 825565
Community Infection Control Nurse		01896 826262
Consultant in Public Health Medicine		01896 825560
Accident Emergency Department		01896 82 6000
Environmental Health (SBC)		01835 824000
Wellbeing and Safety Section (SBC)		01835 824000
Care Inspectorate		01896 664400
NHS 24		08454 24 24 24

3. *Roles & responsibilities within Infection Control: School, nursery and other childcare settings*

Close collaboration with a wide variety of agencies is essential to effective control of communicable disease

The Public Services Reform (Scotland) Act 2010 and associated regulations require care service providers (private and public sector) to have appropriate procedures for the control of infection. Each service is expected to operate within best practice guidelines, so that users can be confident that measures to prevent infection risk are in place.

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- Consultant Public Health Medicine

Public Health legislation demands that certain communicable diseases are notifiable. Doctors who diagnose any of these cases must notify the Department of Public Health Medicine (DPHM). Depending on the nature of the individual disease concerned, further investigations are carried out by the Consultant in Public Health Medicine (CPHM) usually with responsibility for communicable disease and environmental health (CD&EH). This is often in collaboration with local authority Environmental Health Officers and other agencies as appropriate. Other agencies include the Hospital Infection Control Team, the State Veterinary Service, the Health and Safety Executive, Water and Drainage authorities, Scottish Executive Health Department, Health Protection Scotland and Care Inspectorate, formally known as Social Care and Social Work Improvement Scotland (SCSWIS).

These investigations may lead to specific control measures being enforced and to subsequent action by the local authority on the recommendation of the CPHM, as 'Designated Medical Officer', in order to prevent further spread or recurrence of infection. This may include the exclusion of food handlers from work or the restriction of movements of some clients in an institution.

- Health Protection Nurse Specialist

The Health Protection Nurse Specialist (HPNS) is based within the Department of Public Health at NHS Borders headquarters. The HPNS has an advisory function and works closely with the CPHM (CD&EH) and Community Infection Control Nurse. Advice given relates to infection control aspects of care delivery to patients, clients, and service users particularly in outbreak situations. Other areas in which the HPNS may advise include, for example, disinfection, domestic cleaning, laundry, waste management including sharps, hand/client hygiene and client isolation.

- Community Infection Control Nurse

The Community Infection Control Nurse (CICN) contributes to the development and improvement of Infection Control Services in community settings (primarily non-NHS) across the Scottish Borders. The post holder is responsible for facilitating education and providing expert advice on all aspects of prevention and control of infection across the community with a particular emphasis on Care Homes and Early Years settings.

- General Practitioner (GP) or Borders Emergency Care Service (BECS) doctors

GPs and BECS doctors are responsible for the diagnosis and treatment of infectious diseases as they occur in their patients. They also have a professional and ethical responsibility to consider the implications of their diagnosis for other people. GPs are responsible for notifying the CPHM (CD&EH) of certain communicable diseases.

- School Health Service

The Public Health Nurse/School nurse is accessible to all school children, young people and their families. They and the school doctors have oversight of health and physical growth of all school children. They can provide advice and support to parents and when necessary arrange treatment or referral of a child. They are responsible for providing an immunisation programme.

Scottish Borders Council

- Environmental Health Department

Environmental Health Officers (EHOs) are involved in the investigation, control and prevention of communicable disease. EHOs are advised by the CPHM (CD&EH) of all cases of notifiable gastro-intestinal diseases. An EHO will then visit the case and gather information relevant to the illness in order to determine the source of infection and provide appropriate infection control advice. The CPHM (CD&EH) and is supplied with this information. The Wellbeing and Safety Section of SBC is also informed where appropriate.

EHOs will follow up any possible sources of infection and may take appropriate samples if necessary. In order to control the spread of infection EHOs will liaise with the CPHM (CD&EH) on the exclusion of high-risk categories of patients or contacts. Statutory powers are available to enforce co-operation if necessary, although are rarely used.

- Wellbeing and Safety Section

Wellbeing and Safety Section provide advice and support ***to SBC staff only*** regarding control and prevention of communicable diseases.

School, nursery & childcare settings

Each establishment should have a written policy, which details the roles and responsibilities of the staff in the event of an outbreak of communicable disease or episode of infection. The policy should include details of the roles and responsibilities of senior personnel.

- Owner/Statutory Provider

Under health and safety legislation the owner/statutory provider is responsible for maintaining a safe environment for children, visitors and staff. Appropriate arrangements for infection control form part of the health and safety requirements.

- Management

The person in charge must ensure that appropriate control of infection guidance exists and is readily available to, understood, and followed by all members of staff. There is no statutory requirement to notify Public Health of illness in children. This lies with the attending doctor. However, as delays may occur in the notification system, it is helpful if managers telephone the DPHM with information of significant outbreaks, serious or unusual illnesses that are likely to need discussion and advice, as soon as possible. Those services regulated by the Care Inspectorate should inform the local office in the event of an outbreak. If the service is managed by SBC then 'Wellbeing and Safety' section of SBC should be informed.

- All Staff

All staff must be aware of their role in infection control. Additionally, the person in charge should identify a senior member of staff to take a particular interest in infection control and act as the infection control key worker. It is recommended that this person should undertake training in infection control to enable them to recognise problems as they occur and seek specialist advice when required from the CPHM (CD&EH), HPNS, CICN, Environmental Health or Wellbeing and Safety Section at SBC

Others

- Social Care Social Work Improvement Scotland (SCSWIS) – 'Care Inspectorate'

The Care Inspectorate is an independent scrutiny and improvement body for care and children's services and has a significant part to play in improving services for adults and children across Scotland. They regulate and inspect care services and carry out social work and child protection inspections. They have specialist infection control advisers.

- Occupational Health

Not all agencies have their own dedicated Occupational Health Service. However each establishment should have appropriate policies for staff protection through immunisation, training and compliance with health and safety legislation. These should apply to all staff including agency/bank staff. As best practice a pre-employment questionnaire giving information about previous illness and immunisation against relevant infections (e.g. BCG immunisation), or refusal to accept immunisation, should be completed by each new member of staff.

Policies must be in place, which set out the action to be taken in the event of an accident to a staff member, which results in their exposure to the blood or body fluids of another person. That is when:

- there is penetration of the skin by a needle or other sharp object that is, or is suspected to be, contaminated with another person's blood or body fluid
- a bite breaks the skin
- another person's blood or body fluid has come into contact with mucous membrane (e.g. eyes/mouth)

Monitoring and Reporting

A logbook should be maintained to record details of children and staff with confirmed or suspected infections. Information should include:

- name, age, sex, address
- GP
- type of symptoms and date of onset
- specimens sent and results, if known
- Action taken with parent/guardian
- whether notified/reported to the CPHM (CD&EH) and if so, the date notified/reported

Where staff are affected, similar information should be kept.

- The GP, must notify certain cases of infectious disease.
- The person in charge of the establishment should also report such cases, as soon as they occur, by telephone, to the CPHM (CD&EH). Other infectious diseases, which are not statutorily notifiable, may require to be reported.

Control of an Outbreak of Infection

Objectives:

- To enable prompt action through early recognition of an outbreak or problem
- To ensure that appropriate people are informed quickly, allowing effective investigation and control of the outbreak or problem
- To protect children and staff by preventing secondary spread of the infection

An outbreak should be suspected when more cases of the same infection than would be expected occur in a child care setting at any given point of time. As soon as it is suspected that there is an outbreak of infectious disease, the person in charge should contact the CPHM (CD&EH). The CPHM will decide whether there is a true outbreak and will initiate and co-ordinate any necessary action including the use of the local outbreak control plan. The CPHM (CD&EH) or deputy will advise the person in charge of any immediate actions necessary to control the outbreak. The advice is likely to include:

- Keeping a record of all cases
- Sending appropriate specimens to the laboratory and keep record in the log book
- Excluding children. The CPHM (CD&EH) or HPNS will advise on the necessary steps.
- Interviewing parents/guardians of affected children as well as staff. In the case of a food borne outbreak the local EHO may interview residents about food consumed and food handlers about aspects of food hygiene. A check may also be made of procedures and equipment. Staff affected by symptoms should not work until at least 48 hours after diarrhoea and vomiting have ceased. They may be asked to submit stool samples and be excluded from work for a defined period of time.

Resources

An outbreak of infection can have resource implications for nurseries. To implement control measures to reduce further spread, there may be a need for extra staff and increased use of personal protective equipment and other disposable items as well as laundry. Establishments may wish to consider insuring against such costs.

Education and Training

Each care establishment should have an effective induction and ongoing training programme in prevention and control of infection. The programme should include training in the general principles of infection control, including the use of Standard Infection Control Precautions, and food hygiene training for all relevant staff. A record of staff attendance at educational/training sessions should be maintained. All members of staff, including any agency/bank staff and volunteers, must understand their responsibilities in respect of control of infection and be familiar with infection control policies. The Community Infection Control Nurse may provide a useful point of contact to discuss training needs.

4. Immunisation

The routine childhood immunisation schedule in Scotland is given below.

WHEN TO IMMUNISE	WHAT IS GIVEN	HOW IT IS GIVEN
2 months old	Diphtheria, tetanus, pertussis, polio and Hib (DTaP/IPV/Hib) + pneumococcal conjugate vaccine (Prevenar®)	Two injections
3 months old	Diphtheria, tetanus, pertussis, polio and Hib (DTaP/IPV/Hib) + Men C	Two injections
4 months old	Diphtheria, tetanus, pertussis, polio and Hib (DTaP/IPV/Hib) + Men C + pneumococcal conjugate vaccine	Three injections
12/13 months	Hib/MenC, Measles, mumps and rubella (MMR) + pneumococcal conjugate vaccine	Three injections
3 years 4 months to 5 years old	Diphtheria, tetanus, pertussis and polio (dTaP/IPV or DTaP/IPV) Measles, mumps and rubella (MMR)	Two injections
Around 12/13 years (girls only)	Human papillomavirus (HPV)	Three injections
13 to 18 years old	Diphtheria, tetanus, polio (Td/IPV)	One injection

BCG vaccination is appropriate for children born in, or who make prolonged visits to countries of high TB incidence. Contact the Public Health Department for more details – 01896 825560

Hepatitis B vaccination is appropriate for children born to mothers who have evidence of chronic infection.

5. Infections …. at a glance!

Some definitions

Incubation Period – The time it takes from being exposed to becoming ill

Infectious Period – The time the child could pose an infection danger of spread to others

Exclusion Period – The time the child should be kept away from nursery etc. This should be followed even if the child is feeling well.

The A-Z table of infections (later in this section) is not designed to act as an aid to diagnosis. This should be left to a fully trained competent professional. It should however act as a useful tool to summarise the main features of a variety (though not complete) of infections and communicable diseases that children can present with. The Public Health Department has produced specific policies as well as information leaflets on a variety of infections. Electronic versions are available on request from Public Health. They include:

Blue green algae
Campylobacter
Clostridium difficile
Conjunctivitis
Cryptosporidiosis
Dog & cat infections
E-coli 0157
Flu outbreak
Food poisoning
Giardiasis
Enjoy the Countryside
Hepatitis A
Hand, foot & mouth disease
Impetigo
Leptospirosis
Meningococcal disease
Molluscum
Norovirus
Rotavirus
Salmonella
Scabies
Shigella
Streptococcal infections
Threadworms
Tick bites & Lyme disease
Travel health
Tuberculosis
Viral gastroenteritis

For persons in special risk groups (see overleaf), individual management for specific diseases may include a period of exclusion from nursery, school or work; stool sampling to provide laboratory evidence of infection clearance; and screening of contacts. Diseases that may result in such action include E. coli 0157 infection, Salmonella, Shigella, Hepatitis A infection, Typhoid and Paratyphoid fevers.

The circumstances of each patient, excreter, carrier or contact in these groups should be considered individually. Factors such as type of employment, provision of sanitation facilities at work, school or other institution and standards of personal hygiene should all be taken into account. The table below sets out an A-Z list of infections and a summary of how they are usually best managed. For more detailed advice on how to manage a particular situation/infection it may be necessary to contact the Health Protection Team on 01896 825560

Special risk groups

Group A	Any person with doubtful personal hygiene or with unsatisfactory toilet, hand washing or hand drying facilities at home, work or school
Group B	Children attending pre primary school settings
Group C	People whose work involves preparing or serving unwrapped foods not subjected to further heating
Group D	Staff of health care facilities who have direct contact with highly susceptible patients of persons in whom a gastrointestinal infection would have particularly serious consequences

A-Z of infections

Infections	Infectious Period	Exclusion Period of Case	Exclusion of Contacts	Specific Advice or Information
Athlete's Foot	Until skin is fully healed	None	None	Exclusion from barefoot activities in communal areas (including swimming) not required but treatment is advised
Bronchiolitis (croup) eg respiratory syncytial virus (RSV)	Few days prior to onset of symptoms and up to 1 week after	Until the child feels well	None	
Chickenpox (Varicella zoster virus)	2 days before to 5 days after spots develop	Until spots have crusted over and child feels well, usually 5 days	None	If contact is pregnant or immune compromised, seek advice from GP
Conjunctivitis	While eye is red and discharging (if due to an infection)	None unless outbreak or cluster occurs and then only until treatment commenced if provided, especially for pre-fives.	None	Inform HPT if an outbreak occurs
Diarrhoea and vomiting Salmonella Campylobacter Giardia Cryptosporidium Dysentery▲ E.coli 0157▲ Cholera▲ Typhoid▲ Paratyphoid▲ Norovirus Rotavirus	While having symptoms of vomiting and diarrhoea	Minimum 48 hours symptom-free and the child feels well. However, children under 5 require negative stool samples for all diseases marked ▲. Exclusion may be required by HPT for any age group depending on risk assessment	None except E.coli 0157, typhoid or paratyphoid, when exclusion may be required by HPT after a risk assessment	If there is more than one case, seek advice from Health Protection Nurse Specialist. Environmental Health Officers co-ordinate the collection of stool samples and liaise with HPT on exclusion from nursery etc. **Cryptosporidium-** Exclusion from swimming for 2 weeks after last episode of diarrhoea is recommended for all age groups
Fifth disease (Parvovirus / slapped cheek syndrome)	Infectious before onset of rash only	Until child feels well	None	If contact is pregnant or immune compromised, seek advice from GP
Glandular Fever Epstein Barr virus	While virus present in saliva	Until child feels well	None	Spreads only by very close contact
Haemophilus influenzae	Whilst organisms present in nose or throat.	Until 48 hours of antibiotic treatment	None	Preventive antibiotics for close contacts may be made by the CPHM
Hand, foot and mouth (Coxsackie virus)	During acute stages of illness	Until child feels well	None	Virus can be present for weeks after recovery in faeces. Care needed with hygiene
Head and body lice	Until 'Bug Busting (manual removal technique)' or 2 chemical treatments 7 days apart	None	None	Check all contacts and treat only those with evidence of live lice

A-Z of infections

Infections	Infectious Period	Exclusion Period of Case	Exclusion of Contacts	Specific Advice or Information
Hepatitis A	2 weeks before until 7 days after onset of jaundice or symptoms	Until 7 days after onset of jaundice or symptoms and the child feels well	None	Household contacts should seek advice from GP. Contact Health Protection if there is an outbreak
Hepatitis B and C	Not infectious under normal school conditions	None	None	Each case should be discussed with CPHM
Herpes simplex (cold sores)	Until lesions are healed	None	None	Avoid kissing when sore is present
HIV infection	Not infectious under normal school conditions	None	None	Each case should be discussed with CPHM
Impetigo	As long as septic spots are discharging pus	Until spots have crusted over or after 2 days of antibiotics	None	
Influenza	3-5 days after start of symptoms, up to 9 days in children	Until the child feels well	None	
Measles	5 days before symptoms until 5 days after onset of rash	Until 5 days after onset of rash and the child feels well	None	If contact is pregnant or immune compromised, seek advice from GP
Meningitis due to meningococcal disease	Whilst organism is present in nasopharynx but not infectious under normal school conditions	Until the child feels well	None	**Contact Health Protection immediately for advice** Antibiotics for contacts given only on advice of HPNS/CPHM
Molluscum contagiosum	As long as rash persists	None	None	
MRSA	Not infectious under normal school conditions	None	None	Good hand hygiene needed
Mumps	7 days before and up to 9 days after onset of swelling	9 days from onset of swollen glands and the child feels well	None	If contact is pregnant, seek advice from GP
Ringworm - scalp or body (see also Athletes foot)	As long as untreated lesions are present	None once treatment started	None	

A-Z of infections

Infections	Infectious Period	Exclusion Period of Case	Exclusion of Contacts	Specific Advice or Information
Roseola infantum	Whilst feverish and unwell	Until the child feels well	None	Dramatic improvement on day 4/5 of rash. Often mistaken for measles
Rubella (German Measles)	7 days before and at least 4 days after onset of rash	Until 5 days from onset of rash and the child feels well	None	If contact is pregnant, seek advice from GP
Scabies	Until treated. 2 treatments 7 days apart	After 1st treatment	None	All household contacts should be treated at same time
Scarlet fever	From start of sore throat until 24 hours after antibiotics started	Until clinically recovered or minimum of 1 day antibiotics. Could be as long as 5 days.	None	Risk assessment needed. Longer exclusion may be appropriate in pre-school settings but shorter in milder cases in older children
Shingles (Herpes zoster virus)	2 days before to 5 days after spots develop	None if exposed lesions can be covered whilst weeping	None	If contact is pregnant or immune compromised, seek advice from GP
Threadworms	When eggs are shed in the faeces (stools)	None once treated	None	Household contacts should be treated at same time
Tuberculosis (TB)	Depends on site of infection	Until the child feels well but usually at least 2 weeks after starting treatment	None	Seek advice from HPT. Management of case and contacts is co-ordinated by the HPNS
Warts and verrucae	As long as warts are present.	None	None	Avoid direct contact with lesions. It is of value to keep the lesion covered when taking part in P.E., swimming, or other communal sporting activities.
Whooping cough (pertussis)	For 7 days before but reducing several weeks after start of coughing	For 5 days if treated with antibiotics, or 21 days from onset of illness if not treated	None	Vulnerable close contacts may need treatment

6. Notifiable Diseases

Although deaths from communicable diseases in Britain are relatively rare these days, they still occur. Communicable diseases do not respect geographic or administrative boundaries and efforts to prevent, control and treat them depend on a variety of local, national and international agencies. Notification data is a key source of information about the incidence of certain communicable diseases in the population.

The legislation **'Public Health etc. (Scotland) Act 2008: notifiable diseases, organisms and health risk states'** places a legal duty rests on all registered medical practitioners who are attending people suspected of having certain specified infectious diseases to notify the names and addresses of these patients. Notification should take place on the basis of clinical suspicion; a diagnosis does not have to be laboratory confirmed for notification to take place. The purpose of notification is to allow public health action to be taken within the incubation period of the disease in question. Waiting a couple of days for diagnosis to be laboratory confirmed might mean that secondary spread has already taken place.

Notifications are sent to the Department of Public Health at Borders NHS Board. Notification data in Scotland is collated by the Information and Statistics Division (ISD) of the Common Services Agency (CSA), and published in a weekly report produced by Health Protection Scotland (HPS).

The list of notifiable diseases in Scotland differs from that in the rest of the UK. Notifiable diseases in Scotland are:

Anthrax
Botulism
Brucellosis
Cholera
Clinical syndrome due to E.coli O157 infection
Diphtheria
Haemolytic Uraemic Syndrome (HUS)
Haemophilus influenzae type b (Hib)
Measles
Meningococcal disease
Mumps
Necrotizing fasciitis
Paratyphoid
Pertussis
Plague
Poliomyelitis
Rabies
Rubella
Severe Acute Respiratory Syndrome (SARS)
Smallpox
Tetanus
Tuberculosis (respiratory or non-respiratory)
Tularemia
Typhoid
Viral haemorrhagic fevers
West Nile fever
Yellow Fever

Appendices

National standards for toothbrushing programmes

Toothbrushing with a suitable strength fluoride toothpaste is an effective way of helping to prevent tooth decay. The establishment of daily supervised toothbrushing programmes in nursery and school settings is central to the Scottish Government's oral health initiatives for children.

Standard 1: Organisation

- Statement 1(a)

  There is an area-wide toothbrushing programme in place which meets national recommendations and has clear reporting and accountability arrangements

Standard 2: Effective preventive practice

- Statement 2(a)

  Children use an appropriate and effective quantity of toothpaste while minimising cross-contamination

- Statement 2(b)

  Toothbrushes and brushing techniques are appropriate and are able to be used effectively by each child

- Statement 2(c)

  Toothbrushing is organised in a safe and effective way which is integrated with nursery, school and home routines

Standard 3: Prevention and control of infection

- Statement 3(a)

  Toothbrush storage systems comply with best practice in the prevention of cross-contamination

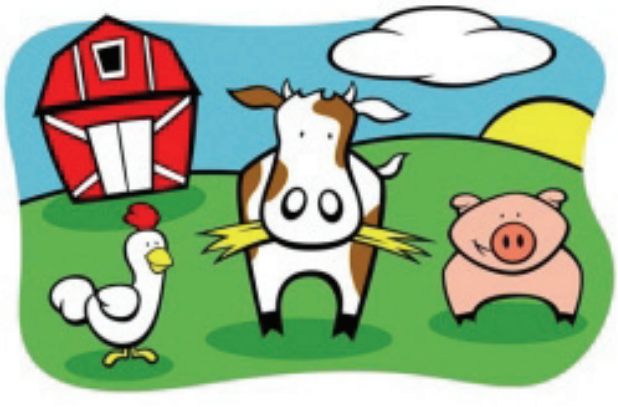
- Statement 3(b)

  Appropriate cleaning procedures are in place to ensure that cross-infection risks are minimised

Further details on rationale and criteria can be found at:

http://www.child-smile.org.uk/uploads/documents/16111-ToothbrushingStandards.pdf

Down on the Farm: Fun but Safe



What should I do before the visit?

- Wear strong, comfortable shoes for your day out. Wellingtons are perfect
- Keep cuts, grazes etc on hands covered with a waterproof dressing
- Learn some important rules
  - Don't eat anything while you're walking around the farm
  - Don't climb on any walls or fences
  - And don't make lots of noise and scare the animals
  - But most important of all – do have loads of fun!

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What should I do on the visit?

- Always wash your hands after touching one of the animals. And never touch one of the animals unless an adult says you can.
- Don't kiss any of the animals, no matter how cute they look
- Always wash and dry your hands before eating and drinking anything and after using the toilet
- Only have snacks and packed lunches in special, clean eating areas. You will be told where these are
- Remember not to pick up or touch any tools which are lying around because they may be dirty and dangerous

What should I do after the visit?

- Make sure your shoes or wellington boots are as clean as you can get them – taking special care to check for animal droppings. Ask an adult to check them for you.

Top tip!

It's always important to wash and dry your hands, but even more so when you've been around animals. Remember to wash your hands very carefully before you leave, using plenty of warm soapy water.