HEALTH PROTECTION TEAM

DIRECTORATE OF PUBLIC HEALTH AND PLANNING

EXCLUSION POLICIES FOR INFECTIOUS DISEASES

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Issued by the Health Protection Team
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CASE MANAGEMENT

REPORTING AND INVESTIGATION OF ILLNESS

NHS Grampian's Health Protection Team (HPT) is responsible for the surveillance, investigation and control of communicable disease and non-infectious environmental hazards in Grampian. An outbreak is defined either as two or more linked cases of the same illness or when the observed number of cases exceeds the number expected. **All** suspected outbreaks should be reported to the HPT by telephone on 01224 558520.

Infectious diseases are reported to the Health Protection Team from a variety of sources including;

- Clinicians and NHS laboratories
- Educational establishments including nursery, primary and secondary schools
- Health and social care colleagues, care homes, day care centres, prisons, community and recreational facilities

There are specific diseases/organisms that require notification to the Health Protection Team under The Public Health etc (Scotland) Act 2008 (further information available at http://www.hps.scot.nhs.uk/publichealthact/index.aspx)
Diseases notified by the diagnosing doctor are marked with (1). Organisms notified by the diagnostic laboratory are marked (2)

FURTHER ADVICE AND INFORMATION including NHS Grampian's infection control document entitled "SAFE WORKING PRACTICE INFECTION CONTROL IN THE COMMUNITY" and various leaflets are available from the team:

- By telephone on Aberdeen 01224 558520
- Web address

http://www.nhsgrampian.org/nhsgrampian/gra_display_simple_index.jsp?pContentID=5690&p_applic=CCC&p_service=Content.show&

BASIC PRINCIPLES

ROUTINE CONTROL MEASURES TO MINIMISE THE SPREAD OF INFECTIONS INCLUDE:

- **Any individual who is unwell and has symptoms of an acute illness should NOT attend nursery, school, work etc**
- Thorough hand washing with liquid soap followed by drying with paper towels
- Maintaining a clean environment including dealing with spillages of body fluids immediately
- Appropriate use of protective clothing e.g. disposable gloves and aprons
- Appropriate management of soiled linen, sharps and waste
- Covering broken skin and prompt first aid for injury or exposure to body fluids
- Appropriate vaccination and/or exclusion of ill individuals

ENTERIC INFECTIONS

Cases and contacts with enteric (diarrhoea & vomiting) symptoms should follow standard management i.e. cases and contacts can return to work or school 48 hours after first normal stool **except** where specific exclusions are stated for high-risk groups A, B, C and D (see page 3). **Remember - if there is any doubt about hygiene, exclude as Group A.**

GROUPS THAT POSE AN INCREASED RISK OF SPREADING INFECTION

Group A	**Any person of doubtful hygiene or with unsatisfactory toilet, hand washing or hand drying facilities at home, work or school**
Group B	**Children who attend pre-school groups or nursery**
Group C	**People whose work involves preparing or serving unwrapped foods not subjected to further heating/cooking**
Group D	**Health or Social Care staff who have direct contact with highly susceptible patients or persons in whom a gastrointestinal infection would have particularly serious consequences**

PRECAUTIONS TO MINIMISE THE SPREAD OF GASTROINTESTINAL INFECTION (ENTERIC PRECATIONS)

All the routine control measures listed above in Basic Principles - routine control measures to minimise the spread of infections include:

- Stay home until 48 hours after symptoms have settled
- Do not swim in public swimming pools, visit hospitals or care homes until 48 hours after gastrointestinal symptoms have settled.

DEFINITIONS	
Asymptomatic	No symptoms of illness displayed, with or without confirmation of infecting organism
Case	Individual with symptoms and/or a laboratory confirmed specimen
Contact	An individual linked to a case that has been exposed to the infectious organism e.g. household member. Symptomatic contacts are often managed as cases until proven negative
Diarrhoea	Diarrhoea is defined as three or more loose stools (stools that conform to the shape of the container) in 24 hours or, for those who normally have loose stools, an altered bowl pattern for that person.
Faecal – oral transmission route	Organisms found in infected faeces are swallowed by people. The organisms may be on/in contaminated surfaces, food or water. For example organisms can be found on toilet flush handles or in inadequately treated private water supplies. The infected faeces may be human or animal.
Foodborne disease	Any disease of an infectious or toxic nature caused by or thought to be caused by the consumption of food or water. Food comprises all foodstuffs and drinks.
Incubation period	The interval between exposure to an infection and the appearance of the first symptoms
Standard management	Exclude from work, school, nursery etc until 48 hours after first normal stool.
Symptomatic	Symptoms of illness displayed, with or without confirmation of infecting organism
Vomiting	Sudden onset of vomiting where there is no alternative non-infective cause

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
AEROMONAS Leaflet available	Watery diarrhoea, mild fever	1 – 7 days	Water, fish	***Cases*** – Enteric precautions ***Contacts*** - None	***Cases*** – 48 hours after first normal stool ***Contacts*** - None
AMOEBIC DYSENTERY **(Entamoeba histolytica)**	Bloody diarrhoea, fever – wide range of severity	2 days to 1 year, usually 2 – 4 weeks	Faecal oral spread via water, raw or undercooked food	**Discuss with HPT** ***Cases*** – Enteric precautions ***Contacts -*** Screen contacts	**Discuss with HPT** ***Cases*** – Exclude groups C&D until one negative faecal sample taken at least one week after the END of treatment. ***Contacts*** – Discuss with HPT
BACILLUS CEREUS Notifiable (2)	Two clinical syndromes may occur 1. Mainly vomiting, 2. abdominal pain, diarrhoea, vomiting	1. 1 – 5 hours 2. 8 –16 hours	Mainly rice: occasionally meat, cereals, dairy products, pasta	***Cases*** – Enteric precautions ***Contacts*** - None	***Cases -*** 48 hours after first normal stool ***Contacts*** - None
CAMPYLOBACTER Notifiable (2) Leaflet available	Abdominal pain, profuse diarrhoea which might be bloody, malaise, headache, fever	1 – 10 days, usually 2 – 5 days	Faecal -oral - mainly via contaminated food or water, foods include poultry milk and milk products. Occasionally person to person	***Cases*** – Enteric precautions ***Contacts*** - None	***Cases*** – 48 hours after first normal stool ***Contacts*** - None

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
CHOLERA Vibrio cholerae serogroups 01 and 0139 Notifiable (1 & 2)	Profuse watery stools, rapid dehydration, collapse	6 hours – 5 days, usually 2 – 3 days	Consumption of contaminated water or shellfish.	**Discuss with HPT** ***Cases*** –Normally hospitalised Enteric precautions ***Contacts*** – Clinical surveillance and screen contacts if common exposure	**Discuss with HPT** ***Cases*** – Groups ABCD - 2 consecutive negative faecal specimens at least 24 hours apart. 48 hours after first normal stool for those not in Groups ABCD. ***Contacts*** – Discuss with HPT
OTHER CHOLERA ORGANISMS (non O1 or O139) Notifiable (1 & 2)	Watery diarrhoea, abdominal cramps, fever, headache	Few hours to 5 days (usually 2-3 days)	Fish, shellfish, marine environments, sea water	**Discuss with HPT** ***Cases*** – Enteric precautions ***Contacts*** - None	**Discuss with HPT** ***Cases*** - 48 hours after first normal stool (If sero group unknown manage as O1 and O139) ***Contact****s* - None
CLOSTRIDIUM BOTULINUM Notifiable (1 & 2) URGENTLY TO HPT	Double vision, dry mouth, difficulty swallowing, respiratory failure, paralysis	2 hours – 5 days, usually 12 – 36 hours	Swallowing food contaminated with toxin. Foods include fish, vegetables, preserved foods, both canned and vacuum packed Spores can enter the body during Injecting drug use	**Urgently discuss with HPT** ***Cases-*** hospitalised ***Contacts*** - None	***Cases*** - None ***Contacts*** - None

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
CLOSTRIDIUM DIFFICILE Notifiable (2)	Found in human gut but usually kept under control by normal flora (good bacteria). Treatment e.g. antibiotics upset the balance between 'good' and 'bad' bacteria which may result in symptoms. Symptoms include diarrhoea, abdominal pain, fever	Within a few days of starting treatment e.g. certain antibiotics	Faecal oral spread person to person via hands and/or the environment	***Cases*** Hospitalised cases - discuss with Infection Prevention & Control Team Living in residential establishments discuss with HPT Living in own home - enteric precautions ***Contacts*** - None	***Cases -*** 48 hours after first normal stool ***Contacts*** - None
CLOSTRIDIUM PERFRINGENS Notifiable (2)	Abdominal pain, diarrhoea	6 – 24 hours, usually 10 – 12 hours	Swallowing contaminated cooked meat & poultry including stews, rolled meat, pies and stovies	**Cases** - enteric precautions ***Contacts*** - None	***Cases*** - 48 hours after first normal stool ***Contacts*** - None
CRYPTOSPORIDIUM Notifiable (2) Leaflet available	Abdominal cramps, watery diarrhoea, fever , nausea	1 – 12 days, usually 7 days	Faecal oral via water, raw milk, animal contact especially young animals such as calves and lambs. Person to person	**Cases** - enteric precautions ***Contacts*** - None	***Cases*** - 48 hours after first normal stool Cases should not use public swimming pools for 14 days after first normal stool ***Contacts*** - None

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
DYSENTERY **Shigella sonnei** Notifiable (2) Leaflet available	Diarrhoea, may be bloody, abdominal cramps, toxaemia	1 – 7 days, usually 3 days	Mostly person to person by faecal oral route	***Cases –***enteric precautions ***Symptomatic contacts*** - As cases.	**<u>Exclusion based on risk assessment - discuss all cases/contacts with HPT</u>** ***Cases*** – Groups AB - 2 consecutive negative faecal samples, at least 24 hours apart. 48 hours after first normal stool for those not in Groups AB. ***Symptomatic contacts*** – As cases **A*symptomatic Contacts*** – None
DYSENTERY **Sh..boydii** **Sh..dysenteriae** **Sh. flexneri** Notifiable (2) Leaflet available	Diarrhoea, may be bloody, abdominal cramps, toxaemia	1 – 7 days, usually 3 days	Faecal- oral mainly via person to person in the UK. Contaminated food or water	**Cases** -enteric precautions **Symptomatic Contacts – as cases**	**Exclusion based on risk assessment so discuss all cases and contacts with HPT** ***Cases-*** Groups ABCD - 2 consecutive negative faecal samples at least 24 hours apart. 48 hours after first normal stool for those not in Groups ABCD ***Symptomatic contacts -*** As cases. **Asymptomatic contacts** – screen and exclude groups ABCD until 2 consecutive negative faecal samples at least 24 hours apart

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
ESCHERICHIA COLI ENTERITIS **(Including Enterotoxigenic and Enteropathogenic)**	Abdominal pain, fever, diarrhoea, vomiting	10 – 72 hours	Faecal oral spread via contaminated food and water or person to person spread	***Cases*** - enteric precautions ***Contacts*** – None	***Cases*** - 48 hours after first normal stool ***Contacts*** – None

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
E COLI O157 VTEC Notifiable (1 & 2) Leaflet available	Abdominal pain, diarrhoea, bloody diarrhoea, Haemolytic Uraemic Syndrome (HUS)	12 hours to 14 days, usually 3 – 5 days	Swallowing the bacteria • During and/or after direct contact with infected animal faeces e.g. caring for infected animals or spraying slurry • During and/or after indirect contact with infected animals faeces e.g. from clothing contaminated with cattle faeces, during picnics or BBQ's in the countryside • When eating raw or undercooked meat contaminated with the bacteria. • By drinking or eating unpasteurised (raw) or poorly pasteurised milk or milk products which are contaminated with the bacteria e.g. cheese. • On unwashed vegetables or fruit fertilised with infected manure Drinking rural or private water supplies contaminated with infected faeces Person to person spread can occur within families or community groups	**Management is based on risk assessment by Health Board appointed Competent Person therefore discuss all cases and contacts with HPT** ***Cases***– Enteric precautions ***Symptomatic contacts*** **-** Enteric precautions **Test all** close contacts i.e. those that have had direct or indirect contact with infected faeces and symptomatic household members Guidance for the Public Health Management of Infection with Verotoxigenic *Escherichia coli* (VTEC) http://www.documents.hps.scot.nhs.uk/about-hps/hpn/vtec.pdfg	**Exclusion based on risk assessment so discuss all cases and contacts with HPT** ***Cases*** ABCD - exclude until 2 consecutive negative faecal samples 24 hours apart Primary school children whose hygiene is doubtful manage as group A 48 hours after first normal stool if not in groups ABCD ***Symptomatic Contacts*** - Exclude as case ***Asymptomatic Contacts*** **-** Groups ABCD exclude until 2 consecutive negative faecal samples 24 hours apart. ***Note****: If case is in group A or B screening of contacts who are in groups A or B will not start until the case is asymptomatic or removed from the household.* *All exclusions will be reviewed every three weeks* *Cases in Group A&B should not swim in public swimming pools until exclusion lifted. All* other cases 48 hours symptom free.

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
GIARDIASIS Notifiable (2) Leaflet available	Mucoid diarrhoea, abdominal cramps, nausea, weight loss	3 – 25 days, usually 7 – 10 days	Faecal - oral spread mainly person to person. Contaminated food and water	***Cases*** - Enteric precautions ***Contact****s* - None	***Cases -*** 48 hours after first normal stool ***Contact****s* - None
HEPATITIS A Notifiable Notifiable (2) Leaflet available	Fever, malaise, anorexia, jaundice, nausea	15 – 50 days, usually around 30 days	Person-to-person faecal oral transmission Eating: • food contaminated by an infected person. • foods such as salads and fruits, which have been washed in contaminated water. • contaminated shellfish Drinking water contaminated by infected faecal material Sharing drug injecting equipment, including needles, syringes, filters, spoons etc. Through sexual intercourse • Through anal sex, usually men who have sex with men.	***Cases*** – enteric precautions. Do not share any equipment that may be contaminated with blood e.g. razors, needles ***Contacts*** - HPT will advise on immunisation and/or the use of immunoglobulin ***Asymptomatic contacts*** that attend pre school establishments require supervised hand washing	**Management and exclusion based on risk assessment so discuss all cases and contacts with HPT** ***Cases*** - exclude until 7 days after onset of jaundice **Or** 7 days after onset of symptoms if no jaundice ***Contacts*** - none **BUT** it may be necessary to exclude children under 12 months and food handlers in specific settings ***Symptomatic Contacts*** - Exclude as case ***Asymptomatic*** - *None*

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
HEPATITIS E **Notifiable (2)**	Fever, malaise, anorexia, jaundice, nausea	15-60 days Usually around 30-40 days	Faecal -oral • Drinking/eating contaminated food & water • Occasionally person to person	***Cases-*** enteric precautions ***Contacts –*** none	**Exclusion based on risk assessment so discuss all cases and contacts with HPT** ***Cases-*** risk assess ***Contact****s* - none **Note:** NE&N central London HPU 2006 Exclusion for all cases and those ABCD up to 14 days after first symptoms. Advise to avoid contact with pregnant women.
NOROVIRUS Notifiable (2) Leaflet available	Vomiting and/ or diarrhoea abdominal cramps, headaches, fever, nausea	4 - 48 hours after exposure to the virus. Symptoms usually resolve in 12-60 hours	Person to person via faecal-oral route • Swallowing the virus after picking it up from contaminated surfaces or objects and not washing hands thoroughly before preparing or eating food. • Eating food contaminated by others • Swallowing suspended viral particles dispersed after vomiting Consumption of shellfish harvested from contaminated water	***Cases*** - enteric precautions ***Contacts*** - None	***Cases*** - 48 hours after first normal stool ***Contact****s* - none

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
SALMONELLA INFECTION Notifiable Notifiable (2) Leaflet available	Diarrhoea, abdominal pain, nausea, fever	6 - 72 hours, usually 12 - 36 hours	• Consumption of contaminated food i.e. under cooked poultry, eggs, or meat. • Person to person especially when case has diarrhoea • Exposure to exotic pets e.g. reptiles	***Cases-*** enteric precautions ***Contacts-*** None	***Cases*** -48 hours after first normal stool **Cases in A&B** require supervised hand washing ***Symptomatic contacts*** - 48 hours after first normal stool ***Asymptomatic contacts*** – None
SALMONELLA TYPHI & **PARATYPHI** Notifiable (1 & 2) Leaflet available	Rigors, fever, cough, rash, variable gastro-intestinal symptoms (can include constipation)	3 – 56 days, usually 1 – 3 weeks	Faecal – oral, occasionally foodborne	**Discuss with HPT** ***Cases*** - Enteric precautions. May be hospitalised ***Contacts-*** Test all household contacts and those with common exposure in the month prior to the case's disease onset.	**Discuss with HPT** ***Cases -*** Groups ABCD until microbiological clearance Group C - 6 consecutive negative faecal specimens Group ABD - 3 consecutive negative faecal specimens Each sample obtained 1 week apart, commencing 3 weeks **after** completion of treatment ***Contacts*** - Exclude Groups ABCD until 2 negative stools at 48 hour apart. Start sampling after case has commenced treatment.

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
STAPHYLOCOC-CUS AUREUS Notifiable (2)	Vomiting, abdominal pain, diarrhoea	1 – 6 hours	Pre-cooked foods, custards etc	***Cases*** - enteric precautions ***Contacts*** - None	***Cases*** 48 hours after first normal stool ***Contacts*** - Group C exclude food handlers with septic lesions on exposed skin until successfully treated.
YERSINIA Notifiable Notifiable (2) Leaflet available	Watery diarrhoea abdominal pain fever	2 – 11 days usually 3– 7 days	Faecal –oral via • Consumption of contaminated food especially pork or pork products • Drinking contaminated water • Direct contact with infected animals • Person to person	***Cases*** - enteric precautions ***Contacts*** - None	***Cases*** - 48 hours after first normal stool ***Contact****s* - None

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
CHICKENPOX (Varicella Zoster)	Sudden onset – fever, malaise, generalised rash. Initially macular, lesions become papules then vesicles. Rash develops in successive "crops" usually starting on the face and scalp so lesions at all stages are present during the first few days.	2 – 3 weeks, usually 13-17 days	Person to person by direct contact, droplet or airborne spread of respiratory or vesicular fluids Spread. High risk, mainly due to airborne spread of respiratory secretions, from 1 – 2 days before onset of rash and the first 5 days Note: Infectivity may be prolonged in the immunocompromised.	**Discuss with HPT** ***Cases*** Pregnant, neonate and immunocompromised – see GP urgently. In addition to the above risk groups, Acyclovir should be considered for all adults over 16 years if treatment can commence within 24 hours of onset of rash. ***Contacts*** Pregnant, neonate and immunocompromised - see GP urgently. VZIG may be indicated ***Healthcare settings*** HCW's with no previous history of chickenpox or shingles who have contact with a case should be tested for antibody; if negative exclude from contact with those at increased risk of serious disease for 8-21 days after contact All non-immune HCW's should be offered immunisation. Ref: Immunisation against Infectious Disease SEHD (2004) PHLS Guidance (2002)	**Community Settings** ***Cases*** 5 days from the onset of rash. If immunocompromised – until lesions have crusted. ***Contacts*** - None Note: Susceptible contacts are potentially infectious 8-21 days after contact (8-28 days if VZIG has been given) and should be advised to avoid contact with those at increased risk during this period where possible. ***Healthcare Settings*** Cases should be isolated from those at increased risk of severe disease: antibody negative pregnant women, neonates and immunocompromised until lesions have crusted over Note: Susceptible contacts (including staff) are potentially infectious 8 -21 days after contact (8 –28 days if VZIG has been given) and should be excluded from contact with those at increased risk during this period.

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
SHINGLES (Herpes Zoster)	Pain, occasionally flu like symptoms accompanied by clusters of clear vesicles	Reactivation of Varicella Zoster Virus (the virus that causes chickenpox). 14-16 days depends on immunity	Contact with vesicle fluid or indirectly via articles freshly soiled with vesicle fluid Much lower risk of spread than in chickenpox. Spread may be possible until all lesions have crusted usually about 1 week following the onset of the rash. Immunocompromised individuals may be infectious 1 – 2 days prior to rash and it may be several weeks until all lesions crust.	***Cases*** Basic principles Pregnant, neonate and immunocompromised – see GP urgently. In these groups consider Aciclovir at any stage of illness. Consider for other cases if given within 72 hours ***Contacts*** Pregnant, neonate and immunocompromised – see GP. VZIG may be indicated Ref: Immunisation against Infectious Disease	***Cases*** For exposed lesions (e.g. face) – exclude for 5 days from onset of rash. If immunocompromised – until lesions have crusted. If lesions can be covered no exclusion is usually necessary. ***Contacts*** None. Note: Susceptible contacts are potentially infectious 8-21 days after contact (8-28 days if VZIG has been given) and should be advised to avoid contact with those at increased risk during this period where possible. ***Healthcare Settings*** Cases should be isolated from those at increased risk of severe disease: antibody negative pregnant women, neonates and immunocompromised until lesions have crusted over. Note: Susceptible contacts (including staff) are potentially infectious 8 -21 days after contact (8 –28 days if VZIG has been given) and should be excluded from contact with those at increased risk during this period.

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
COLD SORES (Herpes Simplex)	Fever, malaise, blister-like lesions on lips and in the mouth, including the tongue.	2 – 12 days	Direct contact with saliva and fluid from blisters. Virus can be found in saliva after recovery and during reactivations (which may be subclinical) for the rest of life.	***Cases*** Treat any secondary bacterial infection. Basic principles ***Contacts*** - None	***Cases*** Children with open sores who "mouth" toys, bite or drool. ***Contacts*** - None (HPA 2010)
CONJUNCTIVITIS (Children) Leaflet available	Watering eyes, swelling of the conjunctiva, swelling of the eyelids and yellow/green discharge.	24 – 72 hours	Contact with discharge from the conjunctiva and respiratory secretions. Contact with contaminated fingers, clothing and other items. Spread, high during acute stage of infection	***Cases*** Topical antibiotic - if appropriate Basic principles ***Contacts*** - Basic principles	***Cases*** Until symptoms settle or until treated with an antibiotic for 24 hours (if indicated). ***Contacts*** - None
DIPHTHERIA (Corynebacterium diphtheriae) Notifiable (1 & 2) **URGENT**	Nasal discharge, sore throat, patches of adherent greyish membrane to uvula and soft palate. Swelling of soft tissues in the neck ("bull-neck" appearance)	2 – 5 days, although sometimes longer	Prolonged direct person – person transmission by intimate respiratory and physical contact. More rarely contact with articles soiled with discharge from lesions of infected people. Raw milk can be a vehicle. Spread, high in non-immunised individuals.	**Discuss cases and contacts with HPT** HPT will assess all cases and contacts to establish the need for chemoprophylaxis and immunisation	**Discuss cases and contacts with HPT** ***Cases*** Until 2 negative nose and throat swabs (+ skin lesions if cutaneous) taken 24 hours apart, 24 hours after completing treatment. ***Contacts*** HPT to assess (Bonnet & Begg 1999)

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
FIFTH DISEASE (Parvovirus B19, Slapped Cheek Syndrome, erythema infectiosum) Leaflet Available	Striking erythema of the cheeks (slapped-face appearance) Mild usually non-febrile illness Adults may have some joint pain/swelling	4 - 20 days more commonly 13 - 18 days	Person to person by direct contact, droplet or airborne spread particularly in closed environments e.g. classrooms Contact with infected respiratory secretions. Mother to foetus Spread most likely 1 – 2 weeks before the rash appears. By the time the rash appears the person is not infectious.	**Discuss with HPT** ***Cases*** Pregnant Blood disorder Immune suppression All see GP urgently ***Contacts*** Pregnant Blood disorder Immune suppression All see GP urgently Management of Healthcare Workers (PHLS 2002) (HPA 2010)	***Cases*** - None ***Contacts*** - None
GLANDULAR FEVER (Infectious Mononucleosis)	Fever, sore throat, malaise, rarely jaundice can occur	4 – 6 weeks	Person to person via saliva. Saliva on toys etc can cause infection in children.	***Cases*** - Basic principles ***Contacts*** - None	***Cases*** - None ***Contacts*** - None
BLOOD BORNE VIRUS (HIV, HEPATITIS B & C HBV and HCV notifiable (2) Leaflets available	No specific symptoms Symptoms can be vague but there maybe tiredness/ muscle aches/ fever/ loss of appetite/ abdominal pain/ jaundice	Varies from virus to virus. Many individuals unaware of infection status.	Unprotected sexual intercourse, heterosexual and homosexual. Sharing injecting paraphernalia Vertically from mother to child Blood to blood i.e. from a sharp injury.	Standard Infection Control Procedures should be practiced at all times (NHS Grampian 2010) In event of significant exposure advice should be sought from GP, A&E or OHS.	**Cases -** None ***Contacts*** - None

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
HAND, FOOT AND MOUTH DISEASE (Coxsackie Virus) Leaflet available	Sudden onset - fever, sore throat, lesions in the mouth Rash on the fingers, palms and the soles of the feet.	3 – 5 days	Direct contact of with faeces, blisters and respiratory droplets of the infected person Not to be confused with Foot & Mouth Disease.	***Cases -*** Basic principles ***Contacts*** - None	**Cases** - None. ***Contacts*** - None (HPA 2010)
HEAD LICE Leaflet available	PLEASE REFER TO NHS GRAMPIAN'S HEAD LICE POLICY (2007)				
IMPETIGO (Staphylococcal or Streptococcal infection)	Blister-like lesions then yellow/green discharge. Skin surrounding the lesions is red and inflamed	4 –10 days	Person-to-person contact. Sharing of towels, clothes and other similar objects Spread. As long as lesions are discharging or a carrier state persists.	***Cases*** - Basic principles ***Contacts*** - Basic principles	***Cases*** Until skin is healed or 48 hours after starting treatment (HPA 2010) ***Contacts*** - None
INFLUENZA **Notifiable (2)** Leaflet Available	Fever, headache, muscle pain, exhaustion, runny nose, sore throat, and cough.	1 – 4 days	Airborne, droplet spread particularly in closed environments. Close contact with respiratory secretions. Cases are infectious from 1 day before the onset of symptoms until 3 - 5days after onset in Adults (Hawker et al 2005)	***Cases*** - Basic principles ***Contacts*** - Basic principles	***Cases*** - None ***Contacts -*** None Subject to change during an influenza pandemic.

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
MEASLES Notifiable (1 & 2) **URGENT**	Fever, conjunctivitis, runny nose, and cough. White "Koplik" spots on the buccal mucosa, which fade as the rash appears around day 3 of illness. Rash appears in the hairline rapidly spreading to face, trunk and limbs fading over 7-10 days	10 days (ranging between 7 and 18 days) with a further 2 – 4 days before the rash appears. (Chin, 2000. cited in Greenbook 2006)	Airborne, droplet spread and direct contact with respiratory secretions of *an individual with measles infection.* Cases are infectious from 5 days before the onset of rash until 4 days after the rash develops *(HPS May 2010)*	**Discuss with HPT** ***Cases*** Salivary testing kit to HPA Colindale to confirm diagnosis. Basic principles. ***Contacts*** In some circumstances MMR or HNIG may be indicated following discussion with HPT. (HPN May 2010) Basic principles.	**Discuss with HPT** ***Cases*** Until 4 days after onset of rash (HPN May 2010) ***Contacts*** - None Healthcare workers need to liaise with Occupational Health Department. Exclusions will be put in place for those with no evidence of past infection or MMR x 2 (HPN May 2010)
MENINGOCOCCAL INFECTION Notifiable (1 & 2) **URGENT** Leaflets available	Fever, severe headache, nausea, vomiting, stiff neck, and petechial rash. Delirium, shock and coma.	2 – 10 days commonly 3 – 5 days. Disease more common in winter months.	Direct contact with respiratory secretions, including droplets. Spread is low. Requires frequent close, prolonged personal contact e.g. household	**Discuss cases and contacts with HPT** HPT will assess all cases and contacts to establish the need for chemoprophylaxis and immunisation Please refer to NHS Grampian Public Health Management of Meningitis Policy (2009)	**Discuss with HPT** ***Cases*** - None ***Contacts*** - None

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
MOLLUSCUM CONTAGIOSUM	Smooth, firm, spherical, painless lesions (flesh-coloured, white, yellow or translucent) with a dip in the middle. Lesions may appear in crops and persist for months. Lesions may spread to other parts of the body. Adults – lesions on the lower trunk, pubic area, and inner thighs. Children - lesions initially mainly on the trunk.	It is estimated to be between 2 weeks and 6 months. (CDC 2006)	Direct skin to skin contact –with someone who already has the condition. Secondary spread autoinoculation (accidental transfer of infected material from lesions from one body site to another i.e. by scratching or shaving) Indirect contact with items handled by an infected person i.e. towels, clothing, and toys.	***Cases*** - Basic principles ***Contacts*** **-** None	***Cases*** Avoid skin to skin contact with others ***Contacts*** - None (HPA 2010)
MUMPS Notifiable (1 & 2) Leaflet available	Fever, swelling and tenderness of one or both salivary glands, orchitis (20-30% adult males), oophoritis (5% adult females)	12 – 25 days commonly 18 days	Droplet spread and direct contact with saliva. Infectious from 5 days before swelling appears to 9 days after.	***Cases*** Salivary testing kit to HPA Colindale to confirm diagnosis. HPT will send kit to GP on notification, Basic principles ***Contacts*** - None	***Cases*** 5 days after onset of swelling 10 days if contact with unvaccinated population e.g. babies. ***Contacts*** - None (HPA 2010)
POLIOMYELITIS Notifiable (1 & 2) **URGENT**	Fever, malaise, headache, nausea, vomiting, muscle pain and stiffness and sudden onset flaccid paralysis	3 – 35 days, commonly 7 – 14 days	Faecal-oral spread, close contact with pharyngeal secretions Spread. High in the few days before and after onset of symptoms. Can be transmitted as long as virus present in stools and nasopharynx.	**Discuss cases and contacts with HPT**	**Discuss cases and contacts with HPT**

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
RINGWORM	Fungal infection. Flat, spreading ring shaped lesions	4 - 10 days.	Direct and indirect contact with lesions of infected people and animals Spread. Fairly high as fungus survives for long periods of time.	***Cases*** Complete treatment. Basic principles *NB for ringworm of scalp treatment by GP required.* ***Contacts*** - None	***Cases*** Until treatment commenced ***Contacts*** - None
RUBELLA Notifiable (1 & 2)	A mild prodrome of malaise and fever 1-2 days prior to appearance of rash (especially adults) Diffuse maculopapular rash (resembling measles or scarlet fever), lymph-adenopathy (may be generalised), arthropathy (especially adult women)	14 – 23 days, commonly 16 – 18 days	Droplets spread or direct contact with respiratory secretions. Virus also found in urine of infants with Congenital Rubella Syndrome (CRS) but is not generally a source of infection Spread. High in closed environments and from infants with CRS. From 1 week before to 6 days after onset of rash.	***Cases*** If pregnant see GP urgently. Salivary testing kit to HPA Colindale to confirm diagnosis. ***Contacts*** If pregnant see GP urgently. (PHLS 2002, HPA 2010)	**Discuss with HPT** ***Cases*** 6 days from onset of rash. (HPA 2010) ***Contacts*** - None
SCABIES Leaflet available	Intense itching, particularly at night. Rash will be present on the fingers, elbows, knees, ankles waist, under the breast and the genital area.	2 – 6 weeks before onset of itching if not previously exposed. 1 – 4 days after re-exposure	Prolonged direct skin to skin contact. Sexual contact. Spread. The risk of further spread is more likely among families and intimate contacts. Individuals with poor	***Cases*** Treatment should be reapplied one week later (BNF 2010) ***Contacts*** Only household and close personal contacts need to be treated.	***Cases*** Until first treatment is complete. (HPA 2010) ***Contacts*** - None If outbreak suspected discuss with HPT

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
			immunity are susceptible. Bedding and clothing are not considered a major risk of transmission.	Please refer to (NHS Grampian Scabies Policy 2005)	
GROUP A STREPTOCOCCAL INFECTION Leaflet available for Scarlet Fever	Wide range of infections including: Sore throat Impetigo Erysipelas Scarlet Fever	1 – 4 days	Contact with secretions from the nose and throat of infected persons (direct, indirect or droplet), airborne spread has also been suggested) Contact with infected wounds or skin lesions	***Cases*** Treatment with appropriate antibiotic ***Contacts*** - None	***Cases*** Throat Infections -minimum 24 hours after start of antibiotics. (HPA 2010) Skin Infections Scarlet Fever - minimum 24 hours after start of antibiotics (HPA 2010) Impetigo - until skin is healed or 48 hours after starting treatment (HPA 2010) ***Contacts*** - None

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
INVASIVE GROUP A STREPTOCOCCUS (iGAS) Necrotising fasciitis Notifiable (1) **URGENT**	iGAS Necrotising fasciitis Bacteraemia	1 – 4 days	Contact with secretions from the nose and throat of infected persons (direct, indirect or droplet), airborne spread has also been suggested) Contact with infected wounds or skin lesions Spread, 7 days before onset of iGAS until 24 hours after start of antibiotics (NHS Grampian May 2010) Increased risk of sporadic iGas - aged 65+ ,recent Varicella infection, HIV +ve, diabetes heart disease, cancer high dose steroids, IV drugs. (HPA, 2004)	***Cases*** Treatment with appropriate antibiotic ***Contacts*** **Discuss contacts with HPT** Close contacts may require antibiotic chemoprophylaxis. (NHS Grampian 2010)	***Cases*** Minimum of 24 hours after start of antibiotics. (HPA 2010) ***Contacts*** - None
GROUP B STREPTOCOCCUS (GBS)	GBS can cause meningitis pneumonia septicaemia	Neonates Early onset: 0 – 7 days. 90% of cases < 24hours Late onset: 1 – 12 weeks, more commonly 3 – 4 weeks	Asymptomatic GBS carriage is common in pregnant women. Vertical transmission, neonates acquire the disease as they pass through the birth canal. Intra partum antibiotic treatment of women	***Cases*** Treatment with an appropriate antibiotic ***Contacts*** - None	***Cases*** - None ***Contacts*** - None

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
			colonised with GBS appears to reduce neonatal infection.		
THREADWORMS	Peri-anal itching, sleep disturbance	Worms lay eggs in e intestines, which develop into infective embryos within 6 hrs	Eggs are transferred to fingers during anal itching then transferred into the mouth on the hands. Spread More likely in households on hands, bedding and clothing.	***Cases*** Initial course of treatment to be repeated 2 weeks later. ***Contacts*** Household members should be treated at the same time.	***Cases*** - None ***Contacts*** - None (HPA. 2010)
TUBERCULOSIS (Respiratory) i.e. Mycobacterium tuberculosis of the lung disease Notifiable (1 & 2) Leaflet available	Persistent cough usually with sputum. Sometimes haemoptysis, malaise, unexplained weight loss, fever/night sweats	4 – 12 weeks but can reactivate years after exposure	Airborne, droplet spread following inhalation of bacilli Spread. Low risk, but more likely in household and close contacts	**Discuss with HPT** ***Cases*** Ongoing by Chest consultant and TB Specialist Nurse (HPT) for a minimum of 6 months. ***Contacts*** TB Specialist nurse will identify at risk contacts and screen as appropriate.	***Cases*** Usually until 2 weeks after start of treatment regime. MDRTB - Discuss with CPHM ***Contacts*** - None (HPN 2009)
TUBERCULOSIS (Non-Respiratory) i.e. Mycobacterium tuberculosis not affecting the lung Notifiable (1 & 2) Leaflet available	Dependant on site of TB. Usually includes unexplained weight loss, malaise and fever/night sweats.	4 – 12 weeks but can reactivate years after exposure	Airborne, droplet spread following inhalation of bacilli Spread. Not infectious but TB Specialist Nurse will screen household contacts to try to determine index case	**Discuss with HPT** ***Cases*** Ongoing by Chest consultant and TB Specialist Nurse (HPT) for a minimum of 6 months ***Contacts*** TB Specialist Nurse will identify at risk contacts and screen as appropriate.	***Cases*** - None ***Contacts*** - None (HPN 2009)

DISEASE	CLINICAL FEATURES	INCUBATION PERIOD	COMMON SOURCES & MEANS OF SPREAD	MANAGEMENT	EXCLUSION
TUBERCULOSIS Environmental (atypical) i.e. infection with Mycobacterium other than TB	Dependant on site of TB. May include unexplained weight loss, malaise and fever/night sweats.	4 – 12 weeks but can reactivate years after exposure	Usually through water or soil. Spread. Not infectious	***Cases*** Ongoing by Chest consultant and TB Specialist Nurse (HPT) for a minimum of 6 months ***Contacts*** - None	***Cases*** - None ***Contacts*** - None
WARTS	Many different types of wart. Generally a raised, rough textured papule, sometimes in clusters. May persist for months or years.	1 – 20 months, usually 2 – 3 months.	Direct contact. Contact with contaminated items such as razors, floors etc have been implicated. Some types can be transmitted sexually. Increased risk of spread in immunosuppressed individuals.	***Cases*** Plantar warts (also known as verrucae) should be covered when swimming etc. Basic principles. ***Contacts*** - None	***Cases*** - None ***Contacts*** - None (HPA. 2010)
WHOOPING COUGH (Pertussis) Notifiable (1 & 2) **URGENT**	Insidious onset, cough becoming paroxysmal. Cough following by high pitched inspiratory "whoop" and/or vomiting.	6 – 20 days, commonly 7 – 10 days	Airborne/droplet spread and direct contact with respiratory secretions Spread. High in period before onset of paroxysmal cough. After this, communicability decreases to negligible risk by 3 weeks.	**Discuss with HPT** ***Cases*** 7 day course of antibiotics ***Contacts*** – None Dodhia et al (2002)	**Discuss with HPT** ***Cases*** 5 days after starting treatment or 21 days from onset of illness if no antibiotic treatment. (HPA 2010) ***Contacts*** Depends on vaccination status. May require 7-day course of antibiotics.

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