Guidelines for Infection Prevention and Control in the Community

Kent Health Protection Unit

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Kent Health Protection Unit

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Guidelines for Infection Prevention and Control in the Community

SECTION ONE

INTRODUCTION

1. This guidance document is intended for managers, carers and staff working in a variety of community settings in Kent. This includes staff in Nursing and Residential Homes, Community Nurses, Health Visitors and any other persons providing care in the community or domestic setting.

2. The purpose of the guidance is to provide evidence-based information and advice about prevention and control of infection.

3. The Kent Infection Control Committee has endorsed the guidance. Membership of the Committee is given in Appendix 2.

STATUTORY RESPONSIBILITIES

4. The statutory responsibility for communicable disease control and infections, whether notifiable or non-notifiable, in the population of a district, rests with the Consultant in Communicable Disease Control (CCDC) as the "Proper Officer" of the local authority.

5. Dr. M. Chandrakumar is the Director for the Kent Health Protection Unit. He is also the "Proper Officer" for the thirteen District Councils of Ashford, Canterbury, Dartford, Dover, Gravesham, Maidstone, Sevenoaks, Shepway, Swale, Thanet, Tonbridge & Malling, Tunbridge Wells, and the unitary authority, Medway Council.

6. A list of notifiable diseases is attached as Appendix 3. Notification Forms are available from the offices of the Kent Health Protection Unit.

7. Other members of the Communicable Disease Control team are:

Dr Jeremy Lissamore	Consultant in Communicable Disease Control
Dr James Sedgwick	Consultant in Communicable Disease Control
Dr Sara Mumford	Consultant in Communicable Disease Control
Dr Sarji Geevarghese	Associate Specialist
Mrs Rita Simmons	Senior Specialist Nurse / Nurse Manager
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Miss Joanne Pullen	Health Protection Specialist Nurse

Mrs Katie Allen	Health Protection Specialist Nurse
Mrs Gillian Ashford	Health Protection Specialist Nurse
Mrs Marion Pearce	Port Health Nurse
Mrs Sharon Williams	Port Health Nurse/Infection Control Nurse

8. Any of the above team members can be contacted on **01622 713059** or **01622 713157** during office hours. If urgent advice is needed out of normal working hours, the on-call public health specialist can be contacted by calling the nearest acute hospital Trust switchboard. Contact numbers are listed in Appendix 4, together with details of other professionals who may be contacted for advice.

LEGAL REQUIREMENTS

9. All employers have a legal obligation under the Health and Safety at Work Act etc 1974[1] to ensure that all their employees are appropriately trained and proficient in the procedures for working safely. They also have a responsibility to protect voluntary workers.

10. Furthermore, employers are required by the Control of Substances Hazardous to Health (COSHH) Regulations 2002[2] to review every procedure carried out by their employees which involved contact with a substance hazardous to health, including pathogenic micro-organisms.

11. Employers and their employees are also responsible in law to ensure that any person on their premises, e.g. residents and their visitors, are not placed at any avoidable risk as far as is reasonably practicable. This includes, for example, the provision of appropriate protective clothing, such as, disposable gloves.

12. Employers should ensure that all new members of staff receive adequate supervised induction and practical training in the health and safety requirements, including infection control procedures established by their employers. Training programmes should be organised to meet the needs of different staff groups.

ORGANISATION AND MANAGEMENT

Occupational Health

13. In the context of infection control, each organisation should have appropriate standards for the protection of staff through immunisation, training and compliance with health and safety legislation[1]. Such standards should apply to all agency and locum staff, and to those on short-term contracts.

14. Each new member of staff should complete a pre-employment health questionnaire and give information about previous illness and immunisation against relevant infections (or refusal to accept immunisation).

15. There must be written procedures in place which details action to be taken, should a member of staff be injured by a needle or other sharp object, which may be contaminated by blood or body fluids. (see para 76-84)

16. Each organisation should work to their own policies to ensure that clients are protected from staff with communicable disease.

17. Such policies should clearly set out the responsibilities of staff members to report episodes of illness to their manager or matron; this is particularly important after travel abroad.

18. When necessary, staff may need to be excluded from work until they have recovered or until the results of specimens are available. Organisations vary in terms of the vulnerability of their clients to infection and policies may differ between organisations. Advice should be sought from staff in the Kent Health Protection Unit.

SECTION TWO

INFECTION CONTROL PRACTICES

UNIVERSAL INFECTION CONTROL PRECAUTIONS

INTRODUCTION

19. The principles of universal infection control precautions represent a standard of good hygiene measures that should be applied as normal practice[3]. These measures are the most important means of protecting patients/clients and staff from infection.

20. Universal precautions include:

    a. Good handwashing and care of the hands

    b. Use of protective clothing

    c. Covering of existing cuts or skin lesions and all breaks in skin on hands and arms with waterproof dressing

    d. Ensuring personal hygiene items including razors and shaving brushes, soap, flannels or sponges are kept separate for each person

    e. Exercising particular care in handling and disposal of Sharps

    f. Cleaning up spillage of blood promptly and decontamination of surfaces

    g. Following safe procedures for disposal of clinical waste

HANDWASHING

21. Good handwashing by staff and residents is the most important measure in the control of infection[4]. On occasions, staff working in domestic settings (patient's own home) may need to arrange for appropriate resources to meet these standards (i.e. use of alcohol gel if hand washing facilities are not available).

22. Handwashing facilities should ideally include the following:

    a. Hot and cold running water (wrist operated mixer or thermostatically controlled taps preferable in clinical areas)

    b. Liquid soap solution (cartridge or pump dispenser system) and disposable paper towels in wall-mounted dispensers

    c. A foot-operated bin to dispose of paper towels

23. The above handwashing facilities should be provided in all care homes in the following areas:

    a. All communal toilets, bathrooms and shower areas

b. Resident's bedrooms - where a resident requires personal care from staff or where there is a requirement to use a commode

c. All treatment areas, sluice and other cleaning areas including laundry rooms

d. Food preparation areas.

Procedure for Hand washing

24. The following standard handwashing technique is recommended[4] (see Appendix 1)

a. Wet the hands before applying soap

b. Rub the hands vigorously, ensuring all surfaces of the hands are cleansed, in particular, between the fingers, around the fingertips, thumbs and wrists, palms front and back

c. Rinse the soap off thoroughly

d. Dry hands well using a disposable paper hand towel

e. The use of an alcohol hand rub preparation may be advised in some circumstances to compliment the use of soap and water[5]. Alcohol hand rub can also be used as an alternative to hand-washing when hands are visibly clean[6].

When to Wash Hands

25. Hands should be washed/decontaminated as follows:

a. Before and after each work shift or work break

b. After caring for a patient/resident

c. Before and after any clinical procedures, e.g. insertion of eye drops or renewing a dressing

d. After contact with blood or other body fluids

e. After handling contaminated items, e.g. commodes, urinals, urine drainage bags

f. After using the toilet or helping a resident/patient to the toilet

g. Before preparing, eating, drinking or handling food

h. Before feeding patients/clients

i. After making a bed or handling used laundry items

j. After removal of gloves

Hand Washing for Clients

26. Patients/clients should be reminded and helped to wash their hands, particularly if their mental or physical condition makes it difficult for them to wash their hands themselves and especially after using the toilet, bedpan or commode and prior to eating.

Personal hygiene

27. All residents should use their own soap, towels, shaving equipment and other toilet requisites.

Nail Brushes

28. Nailbrushes are not recommended as they are often contaminated with bacteria (germs)[5] Some brushes can also damage the skin allowing bacteria to enter. However, single-use disposable nailbrushes specifically manufactured for use in the operating theatre, should be used by staff assisting with or undertaking minor operations/procedures.

Care of the Hands

29. Regular use of a hand cream is recommended to help protect the skin. Hand cream should be presented in individual tubes or pump dispensers. The use of communal pots or containers should be avoided. Nails should be kept short and clean.

Broken skin

30. Cuts and abrasions on the hands and forearms should be covered with a waterproof plaster (blue plaster should be used by catering staff). Staff who have broken, red or irritated skin should seek advice from their Occupational Health Department or General Practitioner.

Wearing of Jewellery

31. Staff caring for clients should not wear ornate rings or wristwatches/bracelets. Jewellery can harbour bacteria. It may also damage the skin of frail elderly clients.

PROTECTIVE CLOTHING

Gloves

32. Gloves provide a barrier and help protect the skin of staff. However, they should not be used as an alternative to handwashing.

33. Gloves should be single use, disposable, non-powdered latex or vinyl materials[7]. Clear polythene or plastic gloves are highly permeable to bacteria

and often split during use and must not be used for clinical procedures. Hands should be washed before wearing and after the removal of gloves.

34. Gloves should be worn by staff when in contact with blood, faeces, urine and other body fluids, including wounds, e.g. weeping leg ulcers. Gloves must also be worn when undertaking catheter care, dressings and also when obtaining a blood sample [7].

35. Gloves should be single use and disposed of on completion of the procedure.

Latex Allergies

36. Latex, the sap of the Brazilian rubber tree, contains naturally occurring allergens causing sensitivity in some people. The sensitivity is dependant on the amount of chemicals added to the latex during the manufacturing process.

37. Staff should be aware that if any signs of irritation develop after glove use, they should inform their Manager and contact their Occupational Health Department or General Practitioner for advice.

38. Latex free gloves should be available for those staff members with confirmed allergies.

Plastic Aprons

39. Disposable plastic aprons should provide an effective barrier and should be used:

    a. Whenever splashing with body fluids is anticipated

    b. When cleaning contaminated equipment

    c. When handling used linen

    d. Food handling

    e. When dealing with dressings.

40. Aprons should be worn for a procedure, removed and then discarded.

Masks and Plastic Overshoes

41. The wearing of masks and/or overshoes is not necessary in the community setting.

Facial Protection

42. Visors, goggles or safety spectacles should be worn whenever facial splashing with body fluids or chemical agents is anticipated[2,3].

43. Eyewash should be available in the event of accidental exposure. Contact lenses should be removed before eye washing.

WASTE DISPOSAL

44. The Health and Safety at Work Act 1974[1] and the Control of Substances Hazardous to Health (COSHH) Regulations 2002[2] lay down a "duty of care" for employers and the requirement to undertake a thorough assessment of risks and ensure that adequate arrangements are made for safe disposal of waste. This duty is extended under the Environmental Protection Act[8]. This applies to community settings as well as in hospital settings. These duties extend to employees working in the home environment as well as nursing/residential care homes.

45. On the16th July 2005 the Hazardous Waste (England and Wales) Regulations 2005 and List of Waste (England) Regulations 2005 came into force, replacing the Special Waste Regulations 1996.

46. These regulations have been enforced by the Environment Agency and must be adhered to by all healthcare practitioners - there are legal penalties for not following them.

47. Waste is categorised as either “hazardous” or “non-hazardous”. There are 14 categories of hazardous waste, of which three apply to infection control; these are:

a) **Infectious**: substances containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms” [e.g. MRSA, C. difficile].

b) **Teratogeni**c: substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce non-hereditary congenital malformations or increase their incidence.

c) **Carcinogenic**: substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence.

48. Hazardous and non-hazardous waste must not be mixed. Producers of waste must keep records of the waste produced, reporting these quarterly to the Environment Agency.

49. Prescription only medicines (POMS) that are classified as cytotoxic and cytostatic will be hazardous.

50. When the new “Safe Management of Health Care Wastes” (Purple book) is published, it will guide on the following:

- New colour coding for clinical waste packaging
- The end of the A-E clinical waste classification and removal of Group E waste
- Interpretation of “infectious”
- Increasing requirement for segregation

51. Further advice on the management of waste will follow, depending on the recommendations made in the new “Safe Management of Health Care Wastes” (Purple book).

Responsibilities for Management of Waste

52. The responsibility for the day-to-day management of waste rests with the person in charge. All those working in areas where waste arises must adopt safe working practices, since failure to do so may result in the home being in breach of its statutory obligations[8].

53. Each organisation should have a policy for waste management. Procedures should be in place to ensure that all waste is segregated, bagged, sealed, tagged and stored securely before collection for incineration by a registered waste contractor[8,9,10]. There is a "duty" for the producer of the waste to ensure that carriers hold the appropriate registration and/or licenses to dispose of that type of waste[2].

Staff Training

54. The management of organisations have a responsibility for ensuring that all staff and volunteers are trained. Those responsible for training must ensure staff use appropriate protective clothing and equipment when handling clinical waste (i.e. gloves and aprons).

Waste Disposal

55. Waste must be disposed of in the appropriate, approved plastic bag[9,10].

56. Each bag must be no more than two-thirds full, labelled with the name of the establishment and securely fastened.

57. Sack Holders/Bins for waste should be:

    a. Suitable for the size of the bag used

    b. Labelled or colour-coded to clearly indicate the contents

    c. Fitted with a close fitted lid

    d. Foot operated

    e. Washed and dried regularly, inside and out

    f. Accessible to staff in sluice rooms, clinical areas and bathrooms.

58. Hazardous waste must be kept separate from domestic waste.

59. The storage area should be locked and inaccessible to unauthorised persons, children and vermin and be free from infestation.

Handling of Waste

60. All staff required to move bagged waste must be trained to:

    a. Check the storage bags are effectively sealed

    b. Handle bags by the neck only

    c. Know the procedure in case of spillage

    d. Check the bags are labelled

Transfer of Hazardous Waste

61. The manager of the home producing the waste is legally responsible for transfer of waste and must ensure the following:

    a. Transfer is only made to an authorised person

    b. A written description of the waste is produced

    c The carrier of the waste holds the appropriate registration and licence to dispose of the waste[8]

    d. Protective clothing must be available for staff involved in handling and transporting waste.

BLOOD AND BODY FLUID SPILLAGES

62. Blood and body fluids from any individual must be considered a potential hazard and therefore care must be taken to avoid exposure.

63. Protective clothing must be worn when dealing with any body fluid spillage.

64. Spillages of blood or other body fluids must be dealt with immediately.

65. Equipment needed is as follows:

    a. Disposable gloves, plastic apron

    b. Paper towels

    c. Sodium dichloroisocyanurate solution (10,000ppm)/ granules/hypochlorite solution.

    d. Yellow waste bag

Procedure for Cleaning of Blood Spills

66. Wearing protective clothing, completely cover the spill with paper towels, and then gently pour a sodium dichloroisocyanurate solution (10,000ppm) over the towels. This must be left for at least two minutes but preferably for 10 minutes before clearing away. The area then needs to be cleaned with hot water and detergent. Towels, gloves, aprons etc all need to be discarded into the yellow hazardous waste bag. Refer to Chemical disinfection section for products and dilutions para. 94-102

67. Alternatively, hypochlorite granules may be applied to small spillages. These can be sprinkled directly onto the spill, following the directions above.

68. Sodium dichloroisocyanurate should not be used when dealing with spillages of urine. Urine spillages should initially be cleared up using paper towels before washing the area with a detergent solution.

69. When blood spillages have occurred on carpeted areas, wear protective clothing, contain the spill and clean up using hot water and detergent only. Carpet should then be steam cleaned. Chlorine releasing agents/bleach products will remove colour if used on carpets or fabric and should not be used.

SAFE USE AND DISPOSAL OF SHARPS

70. All Sharps, including syringes, needles and other sharp objects contaminated with blood or other body fluids must be disposed of into a Sharps container which conforms to British Standard 7320 and/or UN3291 immediately after use.

71. To avoid the risks associated from overfilling, sharps containers need to be removed when three-quarters full, sealed and labelled with point of source.

72. Sharps boxes in use should be kept out of reach of residents, visitors and children and not stored on the floor. Wall or trolley brackets are available free of charge from the manufacturers.

73. Sharps should be disposed of at the point of use, directly into an approved container.

74. Needles should never be re-sheathed, bent or broken.

75. Sharps bins are available on prescription for use in the community. Patients/clients should contact their Local Authority to make arrangements for the collection and disposal of sharps bins. However, there may be a small charge for this service.

Action to be Taken in the Event of Needlestick Injuries or Exposure to Blood/Body Fluids

76. All needlestick injuries or splashes with blood or body fluids must be taken seriously.

77. Immediate action

    a. Encourage bleeding by gentle squeezing and cover with a waterproof plaster

    b. Wash the site of the injury thoroughly with soap and water

    c. For mucous membranes, irrigate the contaminated area thoroughly with 0.9% saline or water.

78. Inform the person in charge immediately, who should determine the following:

    a. Is the source of the sharp (needle) known?

    b. If known, is the resident (donor) known to be a carrier of a blood borne virus?

    c. Is the donor known to be in a high-risk group (e.g. IV drug abuser, Hepatitis B carrier, HIV +ve)

79. If possible, obtain a blood sample with full consent from the donor of the needlestick.

80. The member of staff should then seek advice and possible vaccination from his/her general practitioner or the local Accident and Emergency department.

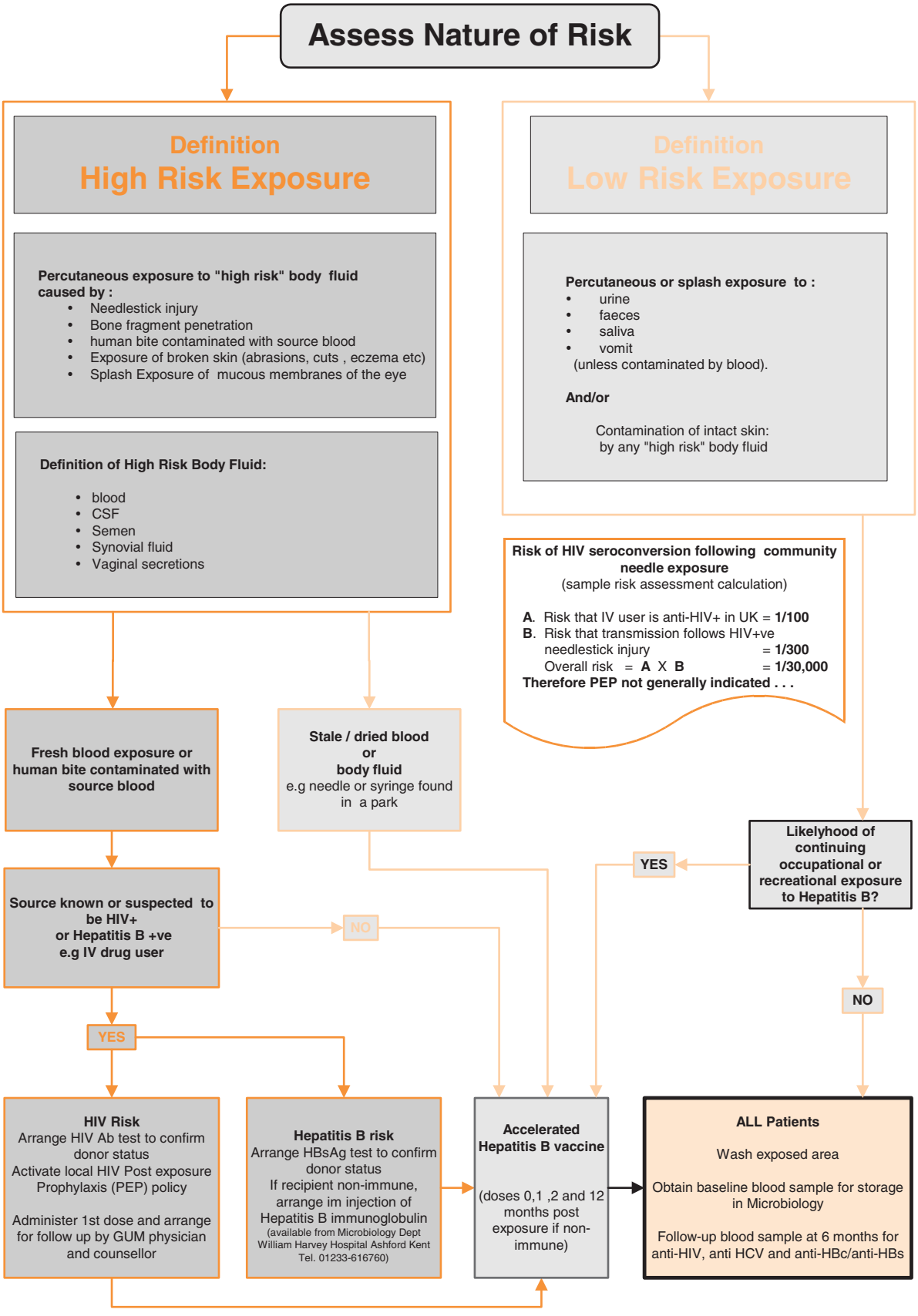
81. The staff member should also provide a blood sample for Hepatitis B antibody check and long term storage.

82. Needlestick recipients who are not immune to Hepatitis B will require a course of Hepatitis B vaccination.

83. If the donor is known to be Hepatitis B or HIV positive or the recipient is a known non-responder to Hepatitis B vaccine, contact the local Consultant Microbiologist within an hour of the injury for consideration of post-exposure prophylaxis (Appendix 4)

84. For further information on needlestick injuries, please refer to Kent Health Protection Unit policy entitled: Guidelines for Needlestick Injury, January 2004. Copies of this policy can be obtained by calling the unit on Tel no: 01622 713059

Management of "Needlestick" blood borne virus exposure in the community



Prepared by R Workman and J Nash 2003

DECONTAMINATION

85. The aim of decontaminating equipment is to prevent potentially pathogenic organisms reaching a susceptible host in sufficient numbers to cause infection[11].

86. Equipment used in clinical and care procedures can transmit infection to an individual. To prevent the spread of infection, items need to be thoroughly decontaminated after each use.

87. The risk of infection is governed by the procedure for which an item is to be used. Therefore, a risk assessment should be carried out taking into account what the equipment is used for, and whether the item has been in contact with a person's skin or mucous membrane or entered a sterile part of the body.[11]

Risk	Application of Item	Minimum Standard
Low	In contact with healthy skin or not in contact with patient (e.g. furniture, mattresses, surfaces).	Clean or single use
Intermediate	In contact with mucous membranes or contaminated with virulent or readily transmissible organisms prior to use on immuno-compromised patients/clients. NB: Items used in the vagina or cervix must be sterilised	Disinfect or single use
High	In contact with a break in the skin or mucous membrane or for introduction into sterile body areas	Sterile or single use

Adapted from Medical Devices agency, part 2 (1996)

Cleaning

88. Cleaning is an essential first step in any decontamination process. Cleaning is a process, which physically removes contamination but does not necessarily destroy micro-organisms.

89. Cleaning, using a freshly prepared solution of detergent (washing-up liquid) and hot water, is appropriate for items that have been in contact with a person's intact skin. The equipment should be thoroughly dried with paper towels.

Cleaning Facilities

90. Facilities required for cleaning include a designated deep sink, hot and cold running water, detergent and disposable cloths. Protective clothing, rubber gloves and plastic aprons should be worn. If there is the potential for splashing to occur, then eye protection should also be worn.

Spray Cleaning

91. Solutions for spray cleaning should be freshly prepared. The spray containers should be emptied and washed after use or at the end of each day. They should be dried or inverted to assist drying. Diluted solutions left in spray

containers are subject to contamination with bacteria and therefore should not be topped up[5]. An alternative would be to use disposable detergent wipes .

Disinfection

92. Disinfection is a process which reduces the numbers of micro organisms to levels where they are unlikely to be a risk of causing infection[12].

93. Heat disinfection is the most effective and reliable method. Equipment used for heat disinfection, includes, dishwashing machines, bedpan/commode washer disinfectors and washing machines for laundry.

Chemical Disinfection

94. The routine use of chemical disinfectants for general cleaning in homes is unnecessary. There is no ideal disinfectant. All chemical disinfectants are potentially hazardous to the user. Thorough cleaning with detergent and hot water is sufficient for routine purposes, except for items contaminated with blood. Specialist advice from the local infection control team regarding the use of chemical disinfectants can be obtained.

Chlorine-based Disinfectants

95. The most widely used agents for inanimate surfaces are chlorine-releasing agents, e.g. sodium hypochlorite (bleach NaOCl) or sodium dichloroisocyanurate (NaDCC). They are recommended for body fluid spills. These agents may be recommended in special circumstances where disinfection is required (refer to Appendix 5 for strengths). For further advice contact the Kent Health Protection Unit.

96. Sodium dichloroisocyanurate (NaDCC) are supplied as tablets, granules or powders. This group includes Presept, Sanichlor, Haz-Tab, Titan and Diversay Detergent Sanitizer.

97. Sodium Hypochlorite (NaOCl) preparations include, bleach, Domestos, Milton and Chloros.

98. Hypochlorite concentration is expressed in terms of parts per million (ppm) available chlorine. Unfortunately, this varies from brand to brand and also depends on how the product has been stored. Liquid bleach should be stored in a cool, dark place and used within six months of purchase.

99. Sodium Hypochlorites have good wide-ranging disinfecting activity[11]. They are most effective when used on equipment, which has been pre-cleaned, as they are easily inactivated by organic matter (body fluids).

100. All disinfectants are potentially hazardous and must be used with caution[2].

101. Hypochlorites can corrode metals and bleach fabrics. They should not be used with some detergents (cationic), as the two are incompatible.

102. **Warning:** Strong acids, including urine, or acidic cleansers must never be mixed with hypochlorites or chlorine based disinfectants, as the mixture will give off highly toxic chlorine gas[11].

STERILIZATION

103. Sterilization is a process used to render an item free from all pathogenic organisms (germs).

Single Use Items

104. The expression 'single use' and/or  on the packaging of medical devices means that the manufacturer:

    a. Intends the device to be used once and discarded

    b. Considers the device is not suitable for use on more than one occasion

    c. Has evidence to confirm that re-use would be unsafe

105. Devices designated for 'single use' must not be re-used under any circumstances

106. The re-use of 'single use' devices can affect their safety, performance and effectiveness, exposing patients/clients and staff to unnecessary risk.

107. The re-use of 'single use' devices has legal implications:

    a. Anyone who processes or re-uses a device intended by the manufacturer for use on a single occasion, bears full responsibility for its safety and effectiveness.

    b. Anyone who reprocesses a single-use device and passes it to a separate legal entity for use has the same legal obligation under the Medical Devices Regulations as the original manufacturer of the device.

108. For further information, please refer to the Medical Devices Agency Bulletin entitled 'Single-use Medical Devices:Implications and Consequences of Reuse MDA DB2000(04) August 2000[13]. Copies of this Device Bulletin are free to health and social care providers and are may be obtained on written request from:

    Department of Health

    PO Box 777

    London

    SE1 6XH Fax: 01623 724 524

A-Z DIRECTORY OF DECONTAMINATION METHODS

Equipment	Preferred method and other recommendations
Auroscope (ear pieces)	Wash in warm water with detergent using thin brush to clean inside and dry thoroughly. *Single use item is preferred.*
Baths and washbasins	Wipe with detergent solution and rinse: cream cleaner for stain removal. Non-abrasive powders should be used on plastic baths after each use. Baths should be dried to prevent growth of micro-organisms.
Bath hoists	Wash with detergent solution, rinse and dry.
Bath mats	Disposable.
Bed cradles	Wash with hot water and detergent, store in a clean place not on the floor.
Bed frames	Wash with detergent solution and dry
Bed pans	Washer disinfector, or single use and macerator. Infected patients/clients - to use individual bedpan. Decontaminate as above.
Bed pan brush	After use, rinse carefully under the tap and hang in holder provided to allow brush to dry.
Bed pan shells	Wash with hot water and detergent\detergent wipe, rinse and store dry after each use.
Bowls (washing)	Wash with detergent and hot water, dry and store inverted.
Bowls (vomit)	Disposable is preferred.
Bradford Slings	If visibly soiled or used on an infected patient, slings should be discarded.
Carpets (should be washable, waterproof back with joints sealed)	Vacuum daily; clean periodically by hot water extraction. For contaminated spills clean with hot water and detergent. Steam clean as soon as possible.
Commodes	Put bedpan in washer or macerator (which ever is applicable). Wash frame and seat with hot water and detergent/detergent wipes.
Crockery and cutlery	Machine-wash and rinse at a temperature above 80°C
Defibrillators	Wipe external surfaces with detergent wipes.
Dental equipment	All parts should be autoclaved.
Dinamaps	Wipe external surfaces with detergent wipes. Wash cuff in hot water and detergent. Dry thoroughly.
Drip Stands	Wipe with detergent/detergent wipes, rinse and dry.
Duvets (plastic)	Wash with detergent solution and dry.
ECG leads	Disconnect and wipe with detergent wipes.
Enteral feeding pumps	Disconnect and wipe external surfaces with detergent wipes.
Entonox machines	Single patient use filters must be used. Single patient use mouthpiece.
Fans	Disconnect, damp dust with detergent impregnated wipe.

Equipment	Preferred method and other recommendations
Humidifiers	Disposable systems. Non-disposable - return to SSD for low temperature steam disinfection.
Jars, suction and drainage	It is recommended that disposable systems are used. Disposable liners - to be disposed of in accordance with local waste disposal policy. Non-disposable jars to be washed with hot water and detergent, stored dry
Jugs and glasses	Change frequently. Keep covered. Use water from taps marked "DRINKING WATER".
Jugs (for measuring urine, stomach aspirate, etc)	Use either disposable or put in washer disinfector after each use. Store jugs dry and inverted.
Lifting slings	Laundry if soiled. Wipe plastic slings with detergent solution or wipes between uses. Slings should remain as single person only and laundered when no longer required or if soiled. Disposable slings are available.
Liquidisers	Separate jugs and base and wash jugs in hot water and detergent or according to manufacturers instructions. Dry thoroughly.
Masks and nebulizers	Single patient use only. Wash with hot water - store dry. The mask must be replaced if visibly soiled.
Mattresses	Wash with hot water and detergent/detergent wipes and dry.
Nail brushes	Avoid use unless essential. Disposable single use item is preferable or send to CSSD unit for sterilisation after each use.
Nail clippers	Single patient use. Clean with detergent and hot water.
Peak Flow Meters	Single use disposable mouthpiece incorporating a one-way valve or single patient use.
Pillows	Should be treated as mattresses.
Potties	Clean with hot water and detergent
Infusion Pumps	Disconnect and damp dust between patients/clients. Use detergent wipes.
Razors (safety - open)	Use disposable or patient to retain his own razor. Dispose of razors into sharps boxes.
Razors (Electric)	Communal razors not to be used. Patient to retain own.
Scissors	Wipe scissors with detergent wipes. Sterile scissors to be used for wound dressings.
Shaving brushes	Not to be used for clinical shaving - patients/clients may use their own brushes for face shaves, rinse and store dry.
Slide Sheets	Wipe with detergent wipes between patients/clients. If soiled send to the laundry. If used on a patient with an infectious disease the slide sheet should be used for this patient only.
Slipper pans	Use washer disinfector or disposable.

Equipment	Preferred method and other recommendations
Specula (vaginal)	Send to SSD/TSSU. Use Disposable.
Stethoscopes	Detergent wipe earpieces and bell. For patients/clients in isolation - keep stethoscopes in room for individual use, wipe with detergent on discharge - all surfaces.
Syringe pumps/drivers	Disconnect and wipe with detergent wipes between uses.
Telephones	Wipe with detergent wipes. This must take place following each use by patients/clients in isolation.
Thermometers (oral/tympanic)	Electric - use with disposable sheath. Clean handle with a detergent wipe.
Toilet seats and raised toilet seats	Wash with detergent solution, rinse and dry with paper towel.
Tourniquets	Wipe with detergent wipes. Use disposable for infected patients/clients.
Toys - plastic - soft	Wash in hot water and detergent. Dry thoroughly. If washable send to laundry. Soft toys should not be shared.
Trolley tops (dressing)	Wash with detergent and water and dry daily. Use detergent wipes between uses. If contaminated with blood, clean with dichloroisocyanurate solution (10,000 ppm chlorine), rinse and dry.
Urinals	As for bedpans.
Wheelchairs	Wipe with detergent and hot water, rinse and dry.
Zimmer frames	Damp dust with detergent and hot water, rinse and dry or use detergent wipe.

LAUNDRY PROCEDURES

Handling Used Linen

109. The risk of contracting an infection from handling used linen is low[5]. However, as with all other contaminated items, clothing and linen stained with blood or other potentially infected body fluids should be handled with care and placed in suitable bags for storage and transportation for laundering. The most important measures to prevent transfer of infection are careful handling of linen, i.e. the use of gloves, followed by good hand washing[5]. The following measures should be adopted to promote practices, which will reduce the risk of infection to staff[14].

Segregation and Washing

110. Used linen should be removed from the person's bed with care, avoiding the creation of dust. The linen should be placed directly into a laundry bag or skip at the bedside to minimise dispersal of bacteria in the air[5].

111. Used linen should be segregated into the following categories. The recommended temperatures for thermally disinfecting linen are contained in guidance issued by the Department of Health HSG (95) 18 1995[14].

a. Used Linen

i. All used linen should be placed directly into a laundry bag or skip

ii. Used lined should be processed in a hot wash where the temperature of the load should reach a minimum of 65°C for not less than 10 minutes or 71°C for not less than 3 minutes to achieve effective heat disinfection[5,14].

b. Infected/Fouled Linen

i. All used linen, which is fouled (contaminated by blood, faeces, vomit or other body fluids), should be placed into a water-soluble/alginate stitched bag and sealed. The water-soluble bag can be placed into the used linen bag for transporting to the laundry room.

ii. Infected or fouled linen must not be soaked or sluiced by hand as this practice creates aerosols. It may also increase the risk of infection to the laundry worker.

c. Heat-Labile Materials

i. These are fabrics that are likely to be damaged by a high temperature wash, for example, wool, silk and some polyester fabrics.

ii. Heat-labile items should be washed in the washing machine on a low temperature cycle (30-40°C) to avoid damage.

112. Care should be taken not to overload washing machines in order to facilitate the washing process and maintain the working life of the machine.

Storage of Clean Laundry

113. There should be a separate area for ironing and storing clean, laundered linen to prevent contamination. The flow of linen round the laundry must ensure clean and dirty items never meet.

Options for Managing Laundry in Residential/Nursing Homes

114. Home owners should consider having either:

a) on-site laundry facilities

b) contract with a local hospital or commercial laundry

115. In a Residential/Nursing Home situation, all used laundry should be treated according to the individual laundry policy of each residence in line with HSG(95)18[14].

On-Site Laundry

116. The laundry area should be designed for the purpose and have good ventilation.

117. Industrial washing machines should be used, with both sluice and hot wash cycles. Machines should have heat sensors that measure the temperature of the load. The machine should be tested at regular intervals as part of a quality control programme.

118. Tumble dryers should be installed to ensure that linen and clothing is thoroughly dried.

119. All equipment should have a planned maintenance programme. A record of all maintenance and servicing should be kept[14].

120. Staff should be provided with protective clothing, including gloves, when working in the laundry. Separate hand washing facilities should be available. (See para 21-26)

121. In the patient's own home, all clothing and bed linen can be laundered as normal with the domestic wash.

Training for Staff

122. All staff handling used linen should receive appropriate training to carry out laundry procedures efficiently and safely.

FOOD HYGIENE

123. Vulnerable groups such as the elderly are particularly at risk from food poisoning.

124. Most cases of food poisoning are caused by poor food handling practices such as poor temperature control or cross contamination. Such practices usually result from negligence or ignorance. Food hygiene training is essential for all staff involved in the preparation or delivery of food.

125. Owners and managers of Nursing and Residential Homes should be aware of the relevant food safety legislation in the home. The local Environmental Health Department will advise on food safety requirements (Appendix 4).

126. Managers have a statutory duty to exclude from work any staff member who is a food handler and has an infection, which may lead to contamination of food. for example, septic skin lesions, diarrhoea and/or vomiting.

127. Further detailed guidance on food safety should be obtained from the local Environmental Health Department of the Local Authority (Appendix 4).

128. All staff engaged in food preparation or handling must be trained in food hygiene and have at least a basic knowledge of good food hygiene practices.

129. Good handwashing practices are an essential part of food hygiene. Hands should be washed often and always after:

    a. visiting the toilet

    b. touching your face including nose, mouth and ears

    c. handling raw foods

    d. break periods

    e. after cleaning the workplace

    f. smoking

130. A separate hand wash basin, together with liquid soap and disposable paper towels in wall-mounted dispensers, must be provided in all kitchens.

131. Cuts and wounds should be covered with a waterproof dressing. In food preparation areas a blue waterproof dressing should be worn.

132. Care staff, residents/clients and visitors must not be allowed to enter the kitchen.

Personal Hygiene

133. Outer clothing should not be worn in the kitchen.

134. Hair should be tied back

135. Do not cough or sneeze on food or bite your fingernails

Crockery and Cutlery

136. All utensils can be machine-washed or hand-washed with detergent and hot water. The water must be very hot, too hot for a person to put an ungloved hand into it. Staff should be provided with rubber/marigold type gloves for washing-up purposes. Washed items should have a final rinse in very hot water, before being dried thoroughly, using disposable paper roll / towels.

REPORTING OF OUTBREAKS / OR SUSPECTED OUTBREAK

137. An outbreak is defined as having two or more related infections caused by the same organism (germ).

138. Residents in Nursing/Residential Homes are likely to be more susceptible to food-borne infections and more likely to suffer serious consequences from such infections than healthy people in the community.

139. Managers and staff should report to the Consultant in Communicable Disease Control or, if out of hours, the Public Health "On Call" specialist, as soon as possible if there are an unusual number of residents or staff with vomiting and/or diarrhoea (Appendix 4).

SECTION THREE

SPECIFIC DISEASES AND CONDITIONS

140. In this section, advice is given on the management of clients with specific infections.

141. Most of the infections listed, will have been diagnosed by the person's doctor and he/she should be the source of advice on treatment for the individual's illness.

METHICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS* (MRSA)

142. This guidance is based on two reports produced by a combined Working Party of the Hospital Infection Society and the British Society for Antimicrobial Chemotherapy[15,16].

143. MRSA stands for methicillin-resistant *Staphylococcus aureus. Staphylococcus aureus* is a type of bacterium (germ) which can often be found in healthy people. It is carried harmlessly on the skin or in the nose of about 30-40% of healthy people. It is the commonest cause of minor skin infections.

144. There are many different strains of *Staphylococcus aureus*. However, because of the widespread use of antibiotics, many resistant strains have emerged and are known as methicillin-resistant *Staphylococcus aureus* (MRSA). These can cause infections in patients/clients whose resistance to infection is severely impaired and in those with deep surgical wounds, catheters or other devices penetrating the skin. These devices may allow the bacteria to enter the tissues and the bloodstream and may cause septicaemia (blood poisoning), pneumonia and other serious infections. All of these can be treated with specific antibiotics.

145. Approximately 80% of people who acquire MRSA carry it harmlessly and show no sign of infection or illness - this is called colonisation. Colonisation is not harmful to the person and does not require treatment. People who are colonised with MRSA are increasingly being discharged from hospital into community settings including nursing and residential homes. Some people in the community settings who have been on antibiotics are also being found to have MRSA.

What Does Colonisation Mean?

146. About 30% of the general population are colonised with *Staphylococcus aureus.* Colonisation (or carriage) occurs when a bacterium lives on the skin or mucous membranes without invading tissue and causing infection. Carriage sites are most commonly the nose, axilla (armpit) or groin.

What Does Infection Mean?

147. Infection means that micro-organisms (germs) have invaded the tissues and have caused an associated tissue reaction, with associated signs of infection.

Why is MRSA a problem?

148. MRSA can be a problem in hospitals for patients/clients who need to undergo major surgery, particularly when a foreign device, such as hip or knee replacement is being implanted during surgery.

149. MRSA may also be a problem for vulnerable patients/clients, for example, those in Intensive Care Units, or Oncology units. This group of patients/clients may require specific antibiotics during their admission. It is important therefore to inform the hospital in advance, if a person known to have MRSA is to be admitted.

What about MRSA in the Community?

150. MRSA poses no particular risk in community settings including Nursing and Residential Homes. Fit healthy people going about their daily lives are much less susceptible to infection with MRSA than hospital in-patients/clients. Such people do not present a risk to the community at large, including other residents or staff in Nursing and Residential Homes.

151. People colonised with MRSA can lead a normal life and mix safely and socialise with other people. There are no contraindications for admission to a Residential or Nursing Home. Discharge from hospital to a person's own home should not be delayed if they have MRSA.

152. MRSA poses no threat to healthy people, including babies, children and pregnant women. Therefore, a staff member caring for a patient/resident with MRSA is at no personal risk, nor is there any risk to their family and household contacts.

What Special Measures Are Needed?

153. In hospitals, people with MRSA may be placed in a single room and barrier nursed. There are no special requirements for caring for people with MRSA in the community. However, universal infection control precautions should be taken when caring for any patient/resident irrespective of whether they are know to be colonised or infected with MRSA or not.

154. There is no requirement for people to have swabs taken, in order to establish whether they are carrying MRSA prior to being discharged from hospital into community setting.

155. In community settings, including Nursing and Residential Homes, routine swabs from staff members are rarely indicated. Advice on screening will be provided by the Kent Health Protection Unit.

Caring For a person with MRSA

156. When administering any care, all healthcare staff must follow universal infection control precautions and hand washing procedures (Section 2, para 19-25).

157. People can share a room as long as neither they nor the other resident/client in the room has open sores or wounds, catheters or other invasive clinical devices in place.

158. People can move around and socialise in the normal way. They may join others in communal areas such as lounges and dining rooms, so long as wounds are covered with a dressing.

159. People can receive visitors and go out of the home to shop or visit relatives or friends.

160. People with MRSA do not need to have separate or disposable crockery or cutlery.

161. Laundry can be managed in the normal manner, according to the individual laundry policy for the home. There is no need for additional measures.

Ambulance Transport

162. There is no need to restrict ambulance transportation of residents, as residents with MRSA pose no risk to ambulance staff or other patients/clients in the ambulance.

Discharge from Hospital to a Nursing/Residential Home

163. It is good practice for staff in hospitals to inform the Matron or Care Manager when a person known to have MRSA is about to be discharged. This is to ensure the person receives the appropriate management. This information should be treated as confidential and it is important that the client should not be stigmatised or refused admission to a home because they have MRSA.

164. Sometimes a person will be discharged before the results of laboratory tests are available. Staff at the hospital, usually, the Control of Infection Nurse, will inform the care manager or GP. This also applies if a sample or swab is sent to the laboratory from a Residential or Nursing home and found to be MRSA positive.

165. Care managers can contact the Health Protection Specialist Nurse in the Kent Health Protection Unit for advice.

Staff Carriage

166. If a staff member is identified with MRSA, contact the Kent Health Protection Unit for advice. Carriage of MRSA does not reflect on the personal hygiene or practice of the staff member involved.

GASTROINTESTINAL INFECTIONS

167. All cases of gastroenteritis should be regarded as infectious, although diarrhoea and vomiting are caused by a variety of infective and non-infective agents.

168. Agents causing gastroenteritis may infect people without causing symptoms or be excreted for long periods after recovery from illness.

169. General practitioners take primary clinical responsibility for cases cared for in Nursing and Residential homes. In outbreak situations the Consultant in Communicable Disease Control must be informed who will lead and investigate the situation.

170. All cases should be cared for using enteric precautions. (See below)

Enteric Precautions

171. These include:

    a. Thorough hand washing using the technique described in para 21-25.

    b. Use of protective clothing when dealing with excretions.

    c. All soiled clothing/bed linen should be washed in a washing machine on a hot cycle.

    d. Toilet seats, flush handles, taps, door handles, should be cleaned daily with hot water and detergent, or more frequently depending on how often they are used.

    e. Thorough environmental cleaning.

    f. People with diarrhoea should be isolated pending diagnosis.

    g. Everyone should be instructed on personal hygiene and in the hygienic preparation and serving of food.

172. All cases of gastroenteritis should be regarded as potentially infectious and should normally be excluded from work or school until the person is free from diarrhoea and/or vomiting for 48 hours.

173. There are many bacteria/viruses which cause gastrointestinal disease. The following are the most common.

CLOSTRIDIUM DIFFICILE

174. *Clostridium difficile* is a spore forming bacteria which can be part of the normal intestinal flora. Normal intestinal flora gets disturbed by antibiotics allowing *Clostridium difficile* to establish itself in the colon and produce toxins that cause mucosal damage, inflammation and fluid secretion resulting in watery diarrhoea.

175. In a typical case, diarrhoea starts within a few days of starting the antibiotics. Abdominal pain and fever may be present.

176. *Clostridium difficile* can be spread by the faecal-oral route, directly via the hands of health care workers, by the accumulation of spores in the environment or on equipment, such as commodes and toilets. Spores may survive in the environment for a considerable length of time. Certain cleaning agents may not always kill the organism.

177. A course of oral Metronidazole (an antibiotic) may be given as treatment. The patient/client's GP will advise.

178. Enteric precautions (see para 171) should be used.

179. Outbreaks of *Clostridium difficile* are unusual in the community. However, should you suspect one, contact the Kent Health Protection Unit.

Campylobacter

180. *Campylobacter* is found worldwide in the gastrointestinal tract of birds and mammals and is the commonest cause of diarrhoea.

181. Transmission from animal to man occurs predominantly via the ingestion of faecally contaminated food or water, the most common being unpasteurised milk and poultry. Normal cooking kills *campylobacter.*

182. *Campylobacter* infection may vary from asymptomatic (25% of cases) to a severe disease mimicking ulcerative colitis.

183. Symptoms include diarrhoea, abdominal pain, fever, malaise and nausea. Diarrhoea varies from loose stools to massive watery stools with an average of 10 loose stools per day at the worst. Most cases settle after 2-3 days but can take up to one week.

184. Enteric precautions are required (see para 171).

Salmonella

185. Salmonella is the second most common reported cause of gastrointestinal disease in England and Wales.

186. Salmonella infection is acquired by the ingestion of the organisms. In most cases this is through the consumption of contaminated foods such as undercooked poultry, meat, raw eggs.

187. Cross contamination is a particular problem and good hygiene practices are necessary.

188. Salmonella may be transmitted from person to person and is spread via the faecal oral route. Other rarer causes include direct contact with animals including exotic pets.

189. The incubation period ranges from six hours to three days, but in most cases is between 12-36 hours after ingestion.

190. The infectious period varies enormously from a few days to months, but is usually about five weeks.

191. Although most cases are sporadic or part of a family outbreak, outbreaks associated with institutions or social functions are not uncommon.

192. The severity of the illness varies; in most cases stools are loose, but do not contain blood or mucus. Diarrhoea usually lasts for 3-7 days accompanied by fever, abdominal pain and headache.

193. Diagnosis is usually confirmed by culture of a stool specimen.

194. Methods of prevention include:

    a. Good personal hygiene measures

    b. Good food practices – paying particular attention to care with raw poultry and eggs

195. If there is a suspected case of Salmonella in a Nursing/Residential home, enteric precautions should be used (see para 171). The CCDC must be contacted for advice.

Escherichia coli 0157

196. There are many different strains of E-coli associated with gastrointestinal illness, the most serious being E-coli 0157.

197. The natural reservoir of E-coli 0157 is the gastrointestinal tract of animals, particularly cattle, but it is also sheep, goats, deer, horses, dogs, birds and flies.

198. Humans can be infected via

    a. Contaminated foods.

    b. Direct contact with animals – farm visits etc.

    c. Faecal oral spread (in families and institutions).

199. Symptoms include diarrhoea, haemorrhagic colitis with bloody diarrhoea, severe abdominal pains but usually no fever. Haemolytic Uraemic Syndrome (HUS), renal failure and anaemia.

200. The incubation period ranges from 1-9 days. HUS may follow after a further 5-10 days.

201. The infectious period is unclear.

202. Methods of prevention include:

a. Good kitchen practices – separation of raw and cooked food

b. Cook meat to a minimum of 70 degrees Celsius for 2 minutes

c. Good hygiene practices

203. Enteric precautions must be used (see para 171). Nurse the resident in single room if available.

204. Consult CCDC for specific advice.

Norovirus - also known as small round structured virus (SRSV)

205. Norovirus is generally a mild illness, which spreads rapidly, particularly in institutions.

206. Outbreaks of Norovirus occur throughout the year but are more common in the cooler months.

207. Symptoms include abdominal cramps, nausea or vomiting and diarrhoea. They are usually mild, lasting 12 – 60 hours.

208. The incubation period is usually 15 – 50 hours but can range from 4 – 77 hours.

209. People remain infections until 48 hours after the resolution of symptoms.

210. Humans are the only known reservoir of Norovirus.

Spread occurs via:

a) Infected food handlers

b) Contaminated foods

c) Person to person

211. Enteric precautions are required (see para. 171)

MENINGITIS

212. Meningitis is an inflammation of the meninges, the lining of the brain. It may be caused by many different organisms including bacteria, viruses and fungi. It can occur in any person at any age.

213. Viral meningitis is more common than bacterial meningitis. It is rarely life-threatening, but it can make people very weak.

214. Fungal meningitis is extremely rare. It usually occurs in people who have a weakened immune system.

215. Contact with a person with viral meningitis does not increase the individual's chances of developing the disease. One must also remember that not every virus will cause viral meningitis.

216. Bacterial meningitis is often very serious and requires urgent treatment with antibiotics. Any bacteria has the potential to cause meningitis. In the UK the most common bacteria causing meningitis are Meningococcal, Pneumococcal, Hib (Haemophilius Influenzae) and Streptococcus. TB and E.coli bacteria may also cause meningitis.

Meningococcal Meningitis/Septicaemia

217. All cases of Meningococcal infection (confirmed or suspected) require an immediate and effective response, in order to:

    a. Minimise risks to the patient.

    b. Prevent secondary infections.

    c. Allay unnecessary anxiety.

218. Meningococcal disease is caused by the micro-organism *Neisseria meningitidis*. It manifests as meningitis, septicaemia or a combination of both.

219. *Neisseria meningitidis* bacteria are very common. The infection is spread from person to person through respiratory droplets and direct contact with nose and throat secretions.

220. The bacteria live naturally in the back of the nose and throat in approximately 10% of the general population. Some of the strains may be non-virulent and cause no harm. Invasive disease usually develops within a week of acquiring the organism, if it is going to develop at all in the individual.

Signs and Symptoms

221. Meningococcal disease may be difficult to diagnose as the symptoms may be similar to flu. There may be any of the following: high temperature, vomiting, headache, stiff neck, joint pains, drowsiness, fits and confusion/disorientation. Babies may have a high pitched cry or moan, be floppy and have a bulging fontanelle.

222. Patients/clients with septicaemia may develop a rash. This is a purpuric (bruise-like) rash, which does not fade under pressure. In a small number of cases the rash may fade at first then change into one that does not. A rash is still visible but harder to see on dark skin. Spots may be seen on palms of hands or soles of feet.

Case Definitions

Confirmed Case: Refers to a case where clinical diagnosis of meningitis or septicaemia is confirmed microbiologically.

Probable Case: Refers to a clinical diagnosis of meningitis or septicaemia without microbiological confirmation, but where meningococcal disease is the likeliest cause. A feverish, ill patient with a petechial or purpuric rash is regarded as a probable case.

Control of Spread

223. **EMERGENCY ACTION:** Meningococcal disease requires urgent medical attention. If someone known to you is ill and meningitis or meningococcal septicaemia is suspected, contact their/your GP immediately.

224. Benzylpenicillin is advised to be given to the case as soon as possible or Chloramphenicol if allergic to penicillin.

225. The person will then be transferred to hospital.

226. The hospital admitting doctors have a statutory obligation to notify the local CCDC of all cases of meningococcal disease, suspected or confirmed.

227. Public health action needs to be taken to reduce the risk of further or linked cases. Any linked cases of meningococcal disease are most likely to occur in members of the same household. The highest risk is in the first seven days after a case is confirmed and decreases in following weeks. Chemoprophylaxis may be given in an attempt to reduce the risk, by eliminating the carriage of meningococcus, therefore reducing the risk of invasive disease.

Definition of a Household/Close Contact

228. Household/close contacts are defined as those people who have had close prolonged contact with the index case in the seven days prior to the onset of disease.

229. These people would include:

a. People living or sleeping in the same household as the case.

b. Mouth kissing contacts.

c. Childminder looking after a case for many hours per day.

d. Healthcare workers giving mouth to mouth resuscitation.

e. Healthcare workers splashed by secretions at or during an intubation.

Choice of Antibiotics

230. Adults and children over 16 years of age should be Ciprofloxacin 500mgs by mouth as a single dose.

231. Children under 16 should be given Rifampicin:

a Children over 12 years 600mg twice daily for two days

b Children 1-12 years 10mg/Kg body weight twice daily for two days

c Infants Under 1 year 5mg/Kg body weight twice daily for two days

232. Approximate dosages in children based on average weight for age are:

0-2 months 20mg (1ml syrup*)	)	twice daily for two days
3-11 months 40mg (2ml syrup*)	)	twice daily for two days
1-5 years 150mg (7.5ml syrup*)	)	twice daily for two days
6-12 years 300mg (15ml syrup*)	)	twice daily for two days

* Rifampicin syrup contains 100mg/5ml

Contraindication and side effects – refer to BNF or Policy for Meningococcal Disease in Kent (Appendix 3 – p15) of that policy.

233. Information given out with antibiotics should include an explanation that such treatment is not fully protective. Side effects should be explained and written information should be supplied to patients/clients by the prescribers.

Pregnancy and Breastfeeding

234. In pregnancy or when breastfeeding contact should be counselled carefully about the risks and benefits of chemoprophylaxis

235. The following options should be considered:

A) No chemprophylaxis (advise about early symptoms)

B) If necessary, use either oral Rifampicin (600mg twice daily for two days) or Ceftriaxone (250mg single dose by intramuscular injection) with 1 ml of 1% Lignocaine.

NB. CIPROFLOXACIN IS NOT RECOMMENDED

Arranging Chemoprophylaxis

236. When the index case is admitted to a hospital, then the hospital doctors looking after the case will be requested to arrange chemoprophylaxis for close household contacts. This is the most convenient method as it is likely close household contacts will be visiting the index case.

237. For other contacts, the chemoprophylaxis will be arranged through the GP. It is the responsibility of each GP to provide treatment for patients/clients on his/her list, which will include providing antibiotics for the prevention of an infection. Each GP will be informed of the details of contacts.

238. Under exceptional circumstances where there are large numbers of people who need to be treated, the Director or his deputy may opt to have special clinics for the dissemination of information and chemoprophylaxis or vaccination.

Chemoprophylaxis for Healthcare Staff

239. Healthcare workers should wear masks to reduce the possibility of exposure to large particles, especially when carrying out airway management procedures, so that chemoprophylaxis is not needed.

240. Healthcare workers and ambulance personnel whose mouth or nose is directly exposed to large particles or droplets/secretions from the respiratory tract of a case around the time of admission to hospital should be offered chemoprophylaxis. This type of exposure will only occur among staff who are working close to the face of the case without wearing a mask. (This usually occurs during airway management or coughing in the face).

241. General medical or nursing care of cases is NOT an indication for prophylaxis

Vaccination

242. Meningococcal C conjugate (MenC) vaccine is available as part of the routine vaccination schedule for children and adults up to the age of 25. This gives long term protection against group C disease. Polysaccharide vaccines are available against A and C or A, C, W135 and Y and are recommended for those travelling to areas of the world where these strains are common.

243. Close contacts of cases due to vaccine preventable strains of *Neisseria meningitidis* who have received chemoprophylaxis should be offered an appropriate vaccine once diagnosis has been confirmed and up to 4 weeks after onset of illness. Although the vaccine is only licensed from 2 months of age, an additional dose is advised for babies below this age.

244. Cases of confirmed serogroup C disease who have previously been immunised with Men C (or polysaccharide) vaccine should be offered a repeat Men C vaccine on discharge from hospital as this represents a vaccine failure.

245. For all cases, the opportunity should be taken to recommend Men C vaccination to unimmunised contacts up to the age of 25 years. Immunised contacts should also be offered a booster of Men C vaccine.

TUBERCULOSIS

246. Tuberculosis (TB) is a bacterial disease caused by *Mycobacterium tuberculosis*. It usually affects the lungs (pulmonary tuberculosis) but can affect any part of the body.

247. TB usually spreads by inhaling droplets, from the nose or mouth of an infected person, i.e. from coughing, sneezing or spitting.

248. Although people who come into contact with TB may pick up the bacteria, not all will go on to develop the infection. It may be years before a person develops any signs and symptoms.

249. The symptoms of TB are extremely varied and usually depend upon which part of the body is affected. Symptoms include:

a.	Fever and night sweats	)	For more than two weeks
b.	Cough	)	
c.	Weight loss	)	
d.	Spitting blood when coughing		

250. When a person has been diagnosed as having TB, they may be admitted to hospital to start their course of treatment. Although sometimes if the disease is mild, they may stay at home.

251. Modern treatment for TB is very effective. This usually consists of a course of several antibiotics which are taken for at least six months.

252. TB can be prevented by immunising against the disease. BCG vaccine is given to infants and older children identified as at-risk due to the area in which they were born or the place of birth of their parents or grandparents.

253. If a person develops TB people living in the same household and others who may be at risk are followed up and screened. This is usually carried out by the respiratory nurse or communicable disease control team about five to six weeks after exposure.

254. Contacts will be seen and offered a Mantoux test. This test involves an intradermal injection of tuberculin and is used to determine whether an individual has pre-existing immunity to TB

255. Depending on the test reaction, some people who are not immune may require BCG vaccine. Others may require a chest x-ray to exclude infection. Those who have been exposed and who are found to have a positive reaction on screening may also require preventative antibiotic treatment if natural immunity is lowered.

256. All forms of Tuberculosis are notifiable under the Public Health (Control of Diseases Act 1984). It is the statutory responsibility of the doctor making, or suspecting, the diagnosis to notify the ‘proper officer’ of the local authority. This is usually the Consultant in Communicable Disease Control.

SCABIES/HEAD LICE

Scabies

257. Scabies is caused by a tiny mite *Sarcoptes scabiei* which burrows into the skin and lays its eggs. The mites produce faecal pellets, from which an allergen

258. diffuses into the deeper skin and eventually enters the bloodstream and causes the symptoms of scabies.

259. As with all allergies the appearance of symptoms is delayed, usually appearing four to six weeks after infection.

260. During the incubation period the person may be infectious without having any signs or symptoms of scabies. This can make the spread very difficult to contain and is the reason for treating contacts and cases at the same time.

261. The appearance, severity of symptoms and their precise nature are influenced by the immune status of the individual.

Classical Scabies

262. This is the form of scabies, which is generally found in healthy people with normal immune systems. The main symptom is a rash, which is extremely itchy, especially at night. Burrows may appear anywhere, but mainly on the hands, particularly the finger webs and arms.

263. The rash has a characteristic distribution being found on the fingers, wrist, forearms, elbows, around the waist, lower buttocks, inside thighs and around the ankles. It is always bilateral and affects both sides of the body alike.

Crusted Scabies (Norwegian Scabies)

264. This form of scabies is extremely rare and occurs in those whose immune systems are severely impaired. Because there is no allergic response, the itchy rash does not appear and the disease is not uncomfortable.

The mites are numerous and may be anywhere on the body including the head. This form of the disease is extremely contagious and usually results in an outbreak.

Atypical Scabies

265. Scabies is atypical in any person with immune or impaired response. Symptoms are variable, scaling or crusting may be present, but is usually slight. Itching may also be very slight or absent, and it may be some time before the infection is diagnosed. A high proportion of atypical cases occur in people in various long-term institutions such as residential homes, or homes for people with learning disabilities.

Transmission of Scabies

266. Scabies is spread from one person to another by close skin to skin contact with an infected person, e.g. holding hands/intimate contact.

267. Scabies mites rapidly dry out away from the human body, therefore the environment does not present a risk of transmission, this includes bed linen and towels.

Treatment

268. It is essential that all close contacts of a person with scabies be treated at the same time, whether they are showing symptoms or not. It must be assumed that they are incubating the disease.

269. It is not necessary to have a bath before commencing treatment, as the treatment should be applied to dry cool skin.

270. It is essential that the whole skin area of the body be treated from the neck downwards, paying particular attention to the ears, between the fingers, and toes, under the fingernails, the sole of the feet around the buttocks. Assistance will be required to apply the treatment to the centre of the back to ensure that no part of the skin is missed.

271. The treatment should be left on for 8-24 hours (depending on the preparation).

272. Children under two years of age, the elderly and immuno-compromised people should be treated under medical supervision. Treatment should be applied to the scalp, face and ears, avoiding the eyes and around the mouth.

273. People with crusted scabies also need to be treated on the scalp, ears and face.

274. Persons are non infectious immediately after treatment and can resume normal life, but should be warned that the itching may persist for some weeks.

275. Two treatments are recommended and should be given 7 days apart. Contacts of a case require only one treatment.

Recommended Treatments

276. There are several different treatments available for scabies. These are the recommended ones:

    a. PERMETHRIN 5% (LYCLEAR DERMAL CREAM)

    b. MALATHION 0.5% AQUEOUS LOTION (DERBAC M)

277. The itch may persist for 2-3 weeks following treatment but this does not mean the treatment has failed. Severe cases of encrusted scabies may need to be treated under the guidance of a Consultant Dermatologist.

Head Lice

278. Head lice are very small flat wingless insects measuring 2-3 millimetres in length. Lice live close to the scalp where the surface is warm (approximately 31 degrees Celsius).

279. The female lays her eggs as close to the scalp as possible in order to ensure that they are at the optimum temperature for incubation. The eggs are glued to the hair strands and normally hatch within 7-10 days.

Transmission

280. Lice are only spread by direct head to head contact. They cannot jump, fly or hop.

281. When checking for head lice, examine the hair by combing damp hair with a fine-toothed detection comb. Look behind the ears, nape of neck and at the hair close to the scalp.

Treatment

282. Treatment should only be carried out if live lice are found.

283. There is no need to treat the entire family or all residents in a home, if head lice are detected in one person.

284. The hair should be free from chlorine, hair conditioner, gels and mousses as these can prevent head lice treatments from working properly. You may need to wash and dry the hair before applying the treatment.

285. The treatment should be carried out strictly adhering to the three step regime as follows.

286. **Step one**

a. Treat with an aqueous Malathion product (Derbac M or Quellada M).

b. Use lotion ensuring a minimum of 50ml is applied to each head (more if the hair is very long or thick).

c. The lotion should be left for 24 hours before washing off.

d. Comb hair each day with an ordinary good quality comb ensuring the comb is taken down to the scalp.

e. Check the head in ten days after treatment and if live lice are still present repeat the treatment with the same lotion.

f. Ten days after the second treatment, if live lice are still present, proceed to step 2.

g. Remember lice take 3/5 days to die, they may be more visible on the head after treatment as they move away from the scalp, but they are not viable.

287. **Step two**

a. Ten days after step one, if live lice are still present then a Pyrethroid product should be used in the same manner as step one (Lyclear cream rinse, full marks).

b. After ten days following second treatment, if live lice are still present then proceed to step three.

288. **Step three**

a. If live lice are still present after ten days following step two then the head needs to be examined by a health professional (health visitor, school nurse, or GP).

b. If live lice are detected then an aqueous based Carbaryl product should be used in the same manner as step one (Derbac C). These are only available on prescription from GPs.

c. Use two applications ten days apart.

d. If at the end of step three live lice are still present, then the case should be discussed with the CCDC (Appendix 2).

Preventing Re-infection

289. Prevention of recurrence is based mainly on identifying and treating relatives and other contacts of the family who are unsuspecting carriers who may pass infection back to treated individuals.

290. Individuals and families should be encouraged and advised to positively look for the source of head lice infection. This should include checking all those people who have social contact with the infected person.

291. Children about five years of age become sensitised and start reacting to lice. Also individuals (usually adults) become de-sensitised and fail to react to lice. These people can carry lice and can be a constant source of infection and re-infection in families and the community.

292. Although schools are not generally where the transmission occurs it is often the place where it is first identified. Most children have been infected for up to four months prior to detection in school. Therefore it is not necessary to exclude an infected child from school as spread may have already occurred.

VIRAL HEPATITIS

293. Hepatitis is inflammation of the liver. It can be caused by several different viruses, the most important are hepatitis A, B and C. One of the main differences between the viruses is the way in which they are spread. Viral hepatitis is a notifiable disease. At present, vaccines are available to prevent hepatitis A and B but not hepatitis C.

Hepatitis A

294. Hepatitis A is an enterically transmitted acute infection and is spread from person to person by the faecal/oral route. Contaminated food and water may sometimes be a source of the infection. The risk of infection can be reduced by careful attention to personal hygiene. Good hand washing is especially important after using the toilet. Elderly frail residents may need to be reminded and helped with hand washing.

295. The incubation period is 15 – 50 days (average 28 days). Individuals usually become non-infectious to others one week after onset of symptoms.

296. The symptoms vary and can range from no symptoms to include severe infection and fever, anorexia, nausea and vomiting and sometimes jaundice. Asymptomatic disease is common in children and severity tends to increase with age. There is no chronic carrier state.

297. Hepatitis A vaccine is available and may be recommended for some high risk groups, occupations and travellers to areas of high endemicity. Hepatitis A immunization is not indicated for Health Care Workers.

Hepatitis B

298. Hepatitis B is an acute viral infection of the liver. The virus circulates in the blood and causes inflammation of the liver and may lead to jaundice. It can be passed onto people who come into contact with blood or other body fluids infected with hepatitis B virus.

299. Transmission may occur following sexual activity or following bites or needlestick injuries from infected people. Most people recover fully from hepatitis B but it can take six months or longer. Around 10% of individuals with acute hepatitis B become chronic carriers and can pass the infection onto others. Among carriers of the virus, those in whom hepatitis B e-antigen (HBeAg) is detected are most infectious. Long term complications of being a carrier include cirrhosis and cancer of the liver. The incubation period is 3 – 6 months.

300. Hepatitis B can be prevented by immunisation and infection control measures. All health care workers should follow safe working practices and adhere to universal infection control precautions at all times. (See para 20)

301. Hepatitis B immunisation consists of three doses of vaccine, with the first dose at the elected date, the second dose one month later and a third dose six months after the first dose. Antibody titres should be checked two to four months after completion of the course of vaccine. Hepatitis B immunisation is

recommended for Health Care Workers who have direct contact with patients/clients' blood or blood-stained body fluids or with patients/clients' tissues.

302. The Control of Substances Hazardous to Health (COSHH) regulations 2002 require employers to undertake their own risk assessment and to bring into effect measures necessary to protect workers and others who may be exposed, against these risks.

303. Risk groups include staff and residents of residential/accommodation for those with severe learning disabilities, (mental handicap). Similar considerations may apply to children and staff in special schools for those with severe learning disability. Decisions on immunisation should be made on the basis of local risk assessments.

HEPATITIS C

304. Hepatitis C is a blood-borne virus that causes liver disease. The virus was first identified in 1989 and a test became available in 1990. The effects of Hepatitis C infection vary from one individual to the next. Many people will remain symptom free, some will develop cirrhosis and a few will develop liver cancer.

305. It is thought that significant numbers of people in England may be chronically infected with the virus. These carriers may pass the virus on to others. Injection drug misuse is the main route of transmission.

306. Hepatitis C is a mild infection and three quarter of those infected have no clinical symptoms. Often the only evidence of infection is found on laboratory testing where liver enzymes are raised.

307. Hepatitis C is spread in the same way as hepatitis B. Transmission is via blood or body fluid of an infected person, especially drug users who may share injecting equipment. Blood transfusions or clotting factor concentrate for haemophilia and other blood disorders have also been associated with transmission.

308. Health Care Workers can become infected from an injury with a needle or sharp instrument contaminated with blood from an infected person.

309. The incubation period is 1-2 months. A person will remain infectious for as long as they are infected with the virus.

310. Unlike hepatitis A and B, at present no vaccine is available for hepatitis C. It is not always possible to identify people with hepatitis C and who may spread the infection to others, therefore precautions to prevent the spread of infection must be followed at all times. Routine universal infection central precautions should be followed at all times; cuts should also be covered with waterproof plasters whilst at work. (See para 20).

CHICKENPOX AND SHINGLES (VARICELLA-ZOSTER VIRUS INFECTIONS)

311. Chickenpox and Shingles are caused by the Varicella Zoster Virus.

312. Chickenpox is a mild disease usually seen in children. It appears as a high fever and then a blistered rash appears over the whole body but mainly the trunk. It is highly infectious and can cause small outbreaks in schools and residential homes. Those who have chicken pox when they are aged over one year will remain immune for life. When it occurs, chicken pox in adults may be more serious.

313. The incubation period is 10-21 days. Cases are infectious for about 2 days before the rash develops and until all the blisters have dried and crusted over – usually about 5-6 days

314. After a chickenpox infection the virus remains dormant within the nerves in the spinal cord. If the virus reactivates (eg as a result of physical or emotional stress) it causes **Shingles.**

315. Shingles is a painful blistering rash which occurs along the line of a nerve. The rash never crosses the midline of the body and the burning pain often appears before the rash. The rash remains for several days or sometimes weeks in the elderly. Antiviral treatment is useful in reducing the pain and rash and medical advice should be sought.

316. The virus is passed from person to person by direct contact with the vesicle fluid or via respiratory secretions. Articles contaminated with vesicle fluid (such as bed linen) are also infectious. Chicken pox may be transmitted from someone with chickenpox or shingles to a susceptible person. Shingles cannot be 'caught' as it is due to reactivation of the virus.

317. Pregnant women who have never had chickenpox and those who are immunosuppressed should seek medical advice if exposed to chicken pox or shingles. Varicella Zoster immunoglobulin (VZIG) may be given to protect an individual from acquiring chickenpox if necessary.

318. Varicella vaccine is available for healthcare workers who have direct patient contact and who are proven to be non-immune by blood test. It is also available for non-immune children and adults aged over 13 years. It is a live vaccine and cannot be given in pregnancy. It can also be given to younger children if they would put an immunosuppressed close contact at risk by acquiring chickenpox.

SECTION FOUR

GUIDELINES FOR PREVENTION OF THE TRANSMISSION OF BLOODBORNE VIRUSES

319. Blood borne Viruses include:

a. Human Immunodeficiency Virus (HIV)

b. Hepatitis B, C, and D Viruses

320. The purpose of these guidelines is to prevent the transmission of blood borne viruses between resident and staff, and from resident to resident. This can be achieved by following the preventative measured listed below:

a. Safe Practice

i. Universal precautions must always be used
ii. Good handwashing techniques should be maintained
iii. Staff should ensure that all cuts and lesions are covered with a waterproof dressing while on shift.
iv. Protective clothing (gloves, aprons) should always be worn when there is a risk of contact with blood or body fluids.

b. Waste Disposal

i. Clinical waste must always be disposed of correctly.

c. Sharps

i. The most likely transmission of a blood borne virus is by direct percutaneous inoculation as a result of a sharps injury.
ii. Sharps should be disposed of at the point of use, directly into an approved container (BS7320).

d. Laundry

i. All laundry contaminated with blood should be treated as infected.

e. Spillages

i. All blood and body fluids spillages should be dealt with immediately as described in paras 62-69

f. Immunisation

i. Staff who are at increased risk (i.e. those likely to be in contact with needles, or those working in any home for residents with severe learning disabilities or those specialising in the care of drug addicts, or where a resident is known to carry Hepatitis B), should be vaccinated against Hepatitis B in accordance with Department of Health Guidance – Protecting healthcare workers and patients from Hepatitis B HSG(93)40.

CATHETERISATION

Maintenance and Care of Urinary Catheters

321. Urinary catheters should always be inserted using aseptic technique. For specific guidelines on insertion/removals see local policies.

322. Catheters are manufactured using a variety of materials. Different catheters can remain in situ for varying lengths of time. It is very important the manufacturer's advice is followed.

323. When urethral catheters are in place, the organisms that cause infections can gain access to the urinary tract. Once a catheter is inserted, either a drainage bag or catheter valve must be attached and every effort made in subsequent management to maintain a "closed system".

324. Good catheter care is essential in preventing urinary infections. The use of antiseptics is no longer recommended as these remove the urethral flora, which actually protects the urinary tract from harmful bacteria. The use of soap and water once daily is recommended.

325. When emptying catheter bags, there is a high possibility that the carers' hands will become contaminated with urine and bacteria. To avoid this, disposable gloves should be worn and hands washed on removal.

326. Urine should be drained from the drainage bag using a non-touch technique, either directly into the toilet or into a disposable or heat disinfected receptacle.

327. If possible, patients/clients should be taught to empty their own drainage bags and the need for hand washing before and after the procedure emphasised.

328. To reduce the risk of urinary backflow up the drainage tube, bags should not be allowed to be over full. A suitable hanger is needed to position the drainage bag below the level of the bladder.

329. Drainage bags should be changed when clinically indicated and/or in line with the manufacturer's recommendations. In Nursing and Residential homes, bags should be disposed of once disconnected, e.g. night drainage bags must not be left disconnected during the day and reconnected at night.

ENTERAL FEEDING

330. Enteral feeding provides nutrition to patients/clients whose gastro-intestinal tracts are working, but who cannot take-in sufficient oral nutrition to meet their bodily requirements. These guidelines are based on the following two documents:

    a. Infection Control: Prevention of healthcare-associated infection in primary and community care (No.3) Care during enteral feeding (June 2003) National Institute for Clinical Excellence[18]

    b. Enteral Feeding – Infection Control Guidelines (April 2003) Infection Control Nurses Association[18]

331. The terms and abbreviations commonly used in relation to enteral feeding and relevant to these guidelines are:

    a. PEG – percutaneous endoscopic gastrostomy
    b. JPEG – jejunal percutaneous endoscopic gastrostomy
    c. NG – naso-gastric
    d. Naso-duodenal tube
    e. Naso-jejunal tube
    f. Jejunostomy
    g. Button gastrostomies [mainly used with children]
    h. Gastrostomy – this may have been surgically or radiologically sited

332. There is a risk of bacterial contamination of feed used for enteral feeding and/or infection at the stoma sites of gastrostomy and jejunostomy tubes.

333. Food hygiene legislation should be taken into consideration when handling and preparing pre-packaged or made-up feeds. The local council's Environmental Health Department will provide advice about food hygiene legislation if necessary.

334. Members of staff who have a sore throat, infected wounds, skin infection, and diarrhoea and/or vomiting should not handle any food or enteral feed; medical advice should be sought about the person's fitness for work.

335. Staff should wear blue plastic aprons to identify that they are handling food. Blue aprons should not be used for clinical activity.

336. **Hands must be washed before and after feed preparation and feed administration. A recognised method of hand decontamination must be used (refer para 21-25 & Appendix 1). A non-touch technique must be used when handling and administering enteral feed.**

337. Keep cuts and scratches on the hands and forearms covered with a clean, waterproof dressing.

Storage of Feed

338. Pre-prepared feed must be stored according to the manufacturer's instructions, observing the following:

   a. The expiry date must be checked before use and stocks should be rotated

   b. The temperature in the storage area should be between 8^0C and 25^0C

   c. The container must be checked before use and damaged containers must not be used

   d. Record the date and time of opening a feed on the feed container

   e. No additions should be made to a feed unless specifically prescribed

   f. Sterile feed opened for a bolus dose of feed can be resealed and refrigerated at a temperature below 8^0C for up to 24 hours. It should be kept on the top shelf of the fridge. If the container cannot be resealed, it must be discarded immediately. If not used within 24 hours, it must be discarded.

   g. Where ready-to-use feeds are not available, feed can be prepared in advance, and then stored in a refrigerator for no longer than 24 hours.

Reconstituting Feed

339. Use cooled, boiled water or freshly opened, sterile water and a no-touch technique.

340. The equipment used (jugs, spoons etc) must be washed in a dishwasher after every use, and stored clean and dry in between each use.

341. If reconstituting feed for vulnerable patients/clients i.e. patients/clients who, because of their condition, are more at risk of infection, this should be carried out in an aseptic unit if available. If this is not possible, feed must be prepared in a clinically clean area, and feed may need to be sterilised before being given. This should be discussed with the dietician.

Decanting Sterile, Enteral Feed

342. Feed should not be decanted unless:

   a. It is unavoidable e.g. it is from a ring-pull can
   b. Additions to the feed are needed
   c. No pre-packed food is available in the required quantity
   d. The feed is to be given as a bolus via a syringe

How to Decant Feed

343.

a. Decant sterile feed into a sterile container in a clean environment
b. Decant the volume to be given; do not top-up pre-decanted amounts
c. Use a no-touch technique

Immuno-Compromised Patients/Clients

344. Enteral feeding tubes for patients/clients who are immunosuppressed should be flushed with either cooled, freshly boiled water or sterile water from a freshly opened container**. Where possible, use pre-prepared feeds.**

Pureed or Mashed Feed

345. Pureed or mashed feed must not be administered via a feeding tube. It is too thick for enteral tubes and may cause a blockage, and it can be contaminated by bacterial micro-organisms during preparation.

Administration of Feeds

346. When administering feed:

a. There should be minimal handling when connecting the feed administration system to the enteral feeding tube; use an aseptic technique to do this.

b. Where possible, use feed that does not need decanting in preference to reconstituted feed. Handling is minimised if larger volumes are used, reducing the number of times the chamber is refilled.

c. Feed containers should have lids that can be removed without the hands touching the neck of the container.

d. When attaching the administration set to the feed, avoid touching either the neck of the feed container or the connector from the administration set.

e. There should be no extensions or connectors added to the administration set to minimise handling. If connectors or extensions have to be used e.g. child button gastrostomy or jejunostomy using a Foley catheter, they must be used according to the manufacturer's guidelines.

f. Use an administration set with a medication port and a closure cap to reduce the number of times the set needs to be disconnected.

g. Use an administration system with a recessed spike rather than an exposed spike or cutter.

h. Pre-packaged feeds can be given for a whole administration session of up to, but no more than, 24 hours.

i. Reconstituted feeds can be hung for a maximum of 4 hours.

j. Administration sets and feed containers are for single use only and must be discarded after each feeding session.

k. Syringes used during enteral feed administration must be used according to the manufacturer's guidelines. Single-use syringes must be used only once. Syringes for single-patient re-use are supplied with usage and cleaning instructions, therefore must be used and cleaned in accordance with these.

Hanging Times

347. This table is taken from the Enteral Feeding – Infection Control Guidelines from the Infection Control Nurses' Association (2003)[18]

FEED TYPE	MAXIMUM HANGING TIME	MAXIMUM STORAGE IN REFRIGERATOR
Sterile, ready-to-use feeds if not decanted	24 hours	Not applicable
Sterile feeds decanted into a sterile reservoir using aseptic technique	24 hours	24 hours
Non-sterile feeds e.g. reconstituted powders, mixed feeds and breast milk decanted into a sterile reservoir	4 hours	24 hours

Care of Stoma Insertion Site and Enteral Feeding Tube

348. The stoma site should be washed daily with water and dried thoroughly.

349. There should be documented, daily observations of the state of the stoma, recording:

a. Whether or not the stoma looks healthy
b. Any discolouration of the surrounding tissue
c. Any signs of infection at the stoma site
d. Any problems with the patency and/or condition of the enteral tube

350. To prevent blockage, the enteral feeding tube should be flushed with fresh tap water before and after feeding or the administration of medicines via the tube. The enteral feeding tubes of immunocompromised patients/clients or those undergoing chemotherapy/radiotherapy should be flushed with either cooled, freshly boiled water or sterile water from a freshly opened container.

351. To prepare cooled, boiled tap water, the ICNA (2003)[18] recommends the following procedure:

> "Empty kettle and fill with fresh water and boil. Once boiled and cooled, decant water into a clean container, e.g. a plastic jug/bottle with a lid, and store in a refrigerator, separated from raw food, at 5^0C or below for a maximum of 24 hours. If it is to be used for hydration, decant into a sterile reservoir."

352. Pumps used to regulate enteral feeding must be decontaminated, following the manufacturer's instructions, at the following times:

a. When signs of contamination are noticed
b. In between each patient's use

353. When purchasing pumps for use with enteral feeding, do consider that is easier to keep equipment clean if it has smooth surfaces, rather than patterned, uneven surfaces.

Care of Stoma Wounds

354. If dressings are to be used at the stoma site, a Tissue Viability Nurse should be consulted to advise about the choice of dressing and the care of the stoma site.

355. Dressings are not needed once the stoma site has healed, which is usually 10 – 12 days after placement, unless there are problems with wound healing.

Oral Hygiene

356. Maintaining oral hygiene is essential for tube fed patients/clients to prevent dental and gum disease and also to prevent chest infections.

357. A mouth care regimen should be established for each patient taking into account any risks of choking or aspiration.

358. The frequency of mouth care will depend on how quickly their mouth becomes dry but should be at least twice a day.

359. Lip balm should be applied to ensure that the lips remain moist.

360. For patients/clients with nasogastric feeding tubes it is important to keep the nasal area and passages clean and clear.

Care and Use of Nebulisers

361. Nebulisers are used for the administration of nebulised medication such as ventolin.

362. The fluid reservoirs can quickly become contaminated with organisms and increase the risk of chest infections if they are not managed effectively.

363. Most nebulisers reservoirs are now single use only and should be discarded after each use. If a nebuliser is labelled single patient use it may be re-used, on the same patient, for the length of time specified by the manufacturer.

364. Those being re-used must be cleaned with hot water and detergent and dried between use to prevent the accumulation of contaminated fluids.

GUIDELINES FOR RESIDENT AND VISITING PET IN CARE HOMES[19,20]

365. Visits from animals have proven beneficial to some individuals; there is evidence of cardiovascular benefit [e.g slower pulse and lower blood pressure], stress reduction and promotion of well-being. However, it is well-known that animals carry micro-organisms on their coats and in their bodies. These micro-organisms can be dislodged or released when an animal shakes itself or licks something; this may present a risk of infection to vulnerable patients.

Resident Pets

366. The person in charge of the care home must ensure that all resident pets have regular check-ups by a vet. If any illness is suspected, the pet must be seen by a vet immediately, and, where possible, cared for away from the home. There should be a nominated person responsible on each shift for supervising the pet.

367. The pet should not be present during residents' mealtimes, and should not be fed in the same area as residents' dine in. Uneaten pet food should be either discarded or covered over to prevent attracting pests.

368. The pet should not be allowed into rooms nor onto patients' beds while dressings are being done or clinical care is being given.

369. The pet's immunisations must be up-to-date, and the pet must be on a flea and worm control programme.

370. Areas where the pet plays, sits or sleeps should be cleaned thoroughly. Additional cleaning may at times be necessary [e.g. if the pet has muddy paws]. Dirt trays must be kept away from residents' rooms; dirt trays should be cleaned thoroughly daily, using detergent and water.

371. **Tropical fish tanks** should not be kept near bed areas and should not be cleaned or maintained near bed areas.

Visiting Animals - General Guidance

372. Ensure that residents not wanting to participate in animal visiting will not be affected physically or psychologically by the animal's visit.

373. All PAT animals have an up-to-date zoonotic certificate containing details of who owns the animal and who will be responsible for it during the visit. There should be a photograph of the animal taken within the last 12 months. This

certificate guarantees that a vet has seen the animal within the last year and remains healthy.

374. All animals must be healthy in general and on the day of the visit; animals should be on a worm and flea-control programme and should be up-to-date with immunisations.

375. All animal owners should be insured for Public Liability Insurance [Khan and Farrag 2000][21]. If an incident occurs during an animal visit, the local incident reporting policy must be followed.

376. The permission of parents or guardians of children under 16 years must be sought before an animal visit takes place.

Precautions

377. An animal must be supervised by its owner or supervisor during any visit.

378. If possible, arrange for the animal visit to take place outside residents' rooms. Assisted dogs [e.g. guide dogs and hearing dogs] can visit patients in their rooms provided the person in charge agrees.

379. If an animal visit is contra-indicated [e.g immunocompromised resident or someone who is allergic to pets], the resident may be able to view the animal through a window.

380. Residents who have any gastrointestinal upset, ringworm, pyrexia of unknown origin, streptococcus group A infection, tuberculosis or parasitic infection, should not be visited by animals. This is to prevent the animal becoming a carrier of disease.

381. If a resident who is having an animal visit has an open wound, this must be covered by an occlusive dressing during the visit.

382. Anyone handling animals must wash their hands before and after contact.

383. If an animal is likely to sit on a resident's bed, the bedding should be covered with a sheet or cover that can be washed immediately.

Cleaning and Disinfection

384. If there is visible contamination of hard surface areas where animals have been, these should be cleaned with detergent impregnated wipes. Floors should be cleaned with detergent and water if visibly contaminated.

385. The animal owner or supervisor should be responsible for cleaning up any animal faeces or urine spillages. A member of the care home staff should supervise the cleaning and hand washing after cleaning is done.

386. Anyone cleaning up animal faeces or urine must wear disposable gloves and apron, and must wash their hands after removing the gloves and apron, which should be disposed of as hazardous waste.

387. **Faeces**: clear away with disposable paper towels. Discard solid faecal matter down the sluice hopper, toilet or macerator, and dispose of paper towels as hazardous waste. Wash the area with detergent and water, then disinfect with a chlorine releasing agent at 1,000 ppm.

388. **Urine**: soak up the spill using disposable paper towels and discard these as hazardous waste. Wash the area with detergent and water, then with a chlorine releasing agent at 1,000 ppm.

OTHER GUIDANCE AND POLICIES

389. Other guidance and policies available from the Kent Health Protection Unit:

a) Guidelines on the Control of Communicable Diseases in Schools and Nurseries

b) Policy for Meningococcal Diseases in Kent

c) Tuberculosis

d) Scabies

e) Headlice

f) Guidelines for Pneumococcal Vaccination in Primary Care Settings

g) Infection Control Guidance for General Practice

h) Infection Control Guidance for Prisons (in preparation)

(Individual leaflets are also available on specific Infectious Diseases (Appendix 6)

SECTION FIVE

TRAINING & AUDIT

STUDY DAYS AND COURSES PROVIDED BY THE KENT HEALTH PROTECTION UNIT

The unit provides a variety of half and full day training on Infection Control issues. The training provided includes sessions on e.g.

Decontamination & Infection control
Infection Control for School Nurses & Health Visitors
Infection Control Link Nurse/Representative (Two Day Course)
Infection Control & MRSA
Infection Control for Nurseries/Playgroups
Communicable Disease for Environmental Health Officers
Infection Control Induction Training
Immunisation & Vaccination
The Theory & Practice of Immunisation
Introduction to Health Protection 6 days (University of Kent at Canterbury) M Level

A copy of the Training Programme, which includes the aims, course content and learning outcomes is available. Copies can be obtained from the Training Co-ordinator.

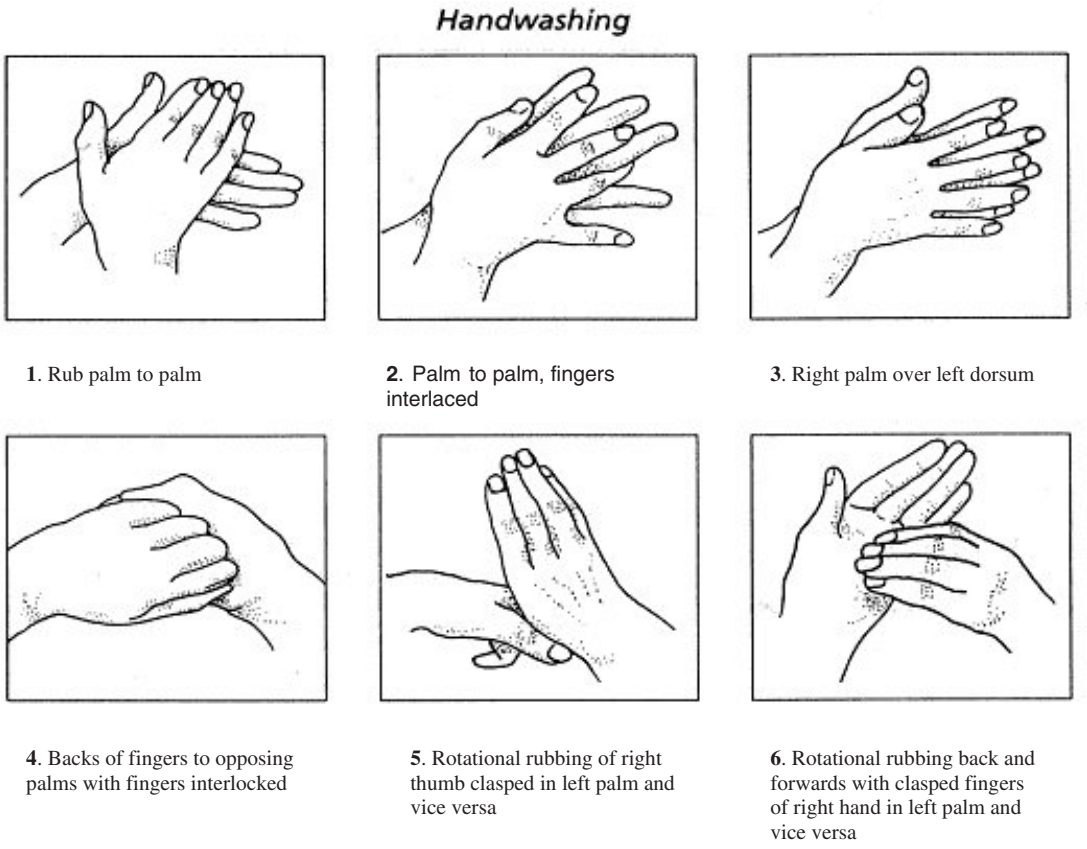
For further information and details of how to book a place on any of the above days – please contact Katherine Whyte, Training Co-ordinator, Kent Health Protection Unit on Tel:01622 710161 or Email: Katherine.Whyte@maidstonewealdpct.nhs.uk

INFECTION CONTROL AUDIT TOOL

The Kent Health Protection Unit has produced two infection control audit tools. Both tools have been adapted from the' West Midlands Infection Control Audit'. The West Midlands tool has been widely used in both acute and community Trusts for many years.
Copies of the Kent 'Health Care Facility Audit Tool' and the 'GP Practice Audit Tool' can be obtained by contacting the Kent Health Protection Unit on 01622 713108

APPENDIX 1

Six-step hand decontamination technique



1. Rub palm to palm

2. Palm to palm, fingers interlaced

3. Right palm over left dorsum

4. Backs of fingers to opposing palms with fingers interlocked

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

6. Rotational rubbing back and forwards with clasped fingers of right hand in left palm and vice versa

Ref Ayliffe et al (1978)[4]

APPENDIX 2

Membership of the Kent Control of Infection Committee

Dr M. Chandrakumar	Director, Kent Health Protection Unit (KHPU) (Chairman)
Rita Simmons	Senior Specialist Nurse / Nurse Manager, KHPU
Sarah Fielder	Health Protection Specialist Nurse, KHPU
Sheena Fenn	Health Protection Specialist Nurse, KHPU
Anita Jenkins	Health Protection Specialist Nurse, KHPU
Gill Ashford	Health Protection Specialist Nurse, KHPU
Katie Allen	Health Protection Specialist Nurse, KHPU
Joanne Pullen	Health Protection Specialist Nurse, KHPU
Dr J. Lissamore	Consultant Communicable Disease Control, KHPU
Dr J. Sedgwick	Consultant Communicable Disease Control, KHPU
Dr S. Mumford	Consultant Communicable Disease Control, KHPU
Dr J.Q.Nash	Consultant Microbiologist, East Kent Microbiology, William Harvey Hospital
Dr G. Calver	Consultant Microbiologist, East Kent Microbiology, William Harvey Hospital
Debbie Weston	Infection Control Advisor, William Harvey Hospital
S Stear	Infection Control Nurse, William Harvey Hospital
A Burgess	Infection Control Nurse, William Harvey Hospital
Dr M. Khan	Consultant Microbiologist, Maidstone Hospital
Dr R Springbett	Consultant Microbiologist, Kent & Sussex Hospital
Vacant	Lead Infection Control Nurse, Maidstone & Tunbridge Wells NHS Trust
D Moore	Infection Control Nurse, Maidstone & Tunbridge Wells NHS Trust
Dr R. Workman	Consultant Microbiologist, Medway Maritime Hospital
Dr M Strutt	Consultant Microbiologist, Medway Maritime Hospital
Kath Hughes	Modern Matron, Infection Control, Medway Maritime Hospital
Linda Dempster	Assistant Director Infection Prevention & Control, Medway & Swale PCT
Dr E. Ndawula	Consultant Microbiologist, Kent & Canterbury Hospital
Sue Roberts	Infection Control Advisor, East Kent Hospitals NHS Trust
Sandra Tomlinson	Infection Control Nurse, Kent & Canterbury Hospital
Dr Gonzalez	Locum Consultant Microbiologist, Darent Valley Hospital
Iris Smith	Assistant Director Infection Prevention & Control, Darent Valley Hospital
Damian Hillan	Director of Learning Disabilities, West Kent NHS & Social Care Trust
Brian Pullen	Infection Control Advisor, Kent Ambulance Service
Chris Moody	Environmental Health Officer, Shepway District Council
Mike Hannon	Food Safety Team Leader, Thanet District Council
Jo Holden	Environmental Health Officer, Swale Borough Council
Ron Wallis	Environmental Health Officer, Maidstone Borough Council
Roger Vick	Commercial Health Manager, Canterbury City Council
Melanie Henbest	Environmental Health Officer, Medway Unitary Authority
Sheila Davison	Divisional Manager Environmental, Ashford Borough Council

Elizabeth Morling	Principal Environmental Health Officer, Sevenoaks District Council
Sarah Kilkie	Principal Environmental Health Officer, Gravesham Borough Council
Phil Beddoes	Chief Environmental Health Officer, Tunbridge & Malling Borough Council
Debbie Stock	Food and Commercial Manager, Tunbridge Wells Borough Council
Julie Short	Principal Environmental Health Officer, Dartford Borough Council

APPENDIX 3

Notifiable Diseases in England and Wales

(WITH THE DATE EACH WAS MADE NOTIFIABLE UNDER CURRENT OR SIMILAR NOMENCLATURE)

INFECTION	WHEN MADE NOTIFIABLE
Under the Public Health (Control of Disease) Act 1984	
Cholera*	1889
Food Poisoning	1949
Plague*	1900
Relapsing Fever*	1889
Smallpox*	1889
Typhus	1889
Under the Public Health (Infectious Diseases) Regulations 1988	
Acute Encephalitis	1918
Acute Poliomyelitis	1912
Anthrax*	1960
Diphtheria*	1889
Dysentery (amoebic or bacillary)	1919
Leprosy	1951
Leptospirosis	1968
Malaria	1919
Measles	1940
Meningitis*	1968
Meningococcal Septicaemia (without meningitis)*	1988
Mumps	1988
Ophthalmia Neonatorum	1914
Paratyphoid Fever	1889
Rabies	1976
Rubella	1988
Scarlet Fever	1889
Tetanus	1968
Tuberculosis	1912
Typhoid Fever*	1889
Viral Haemorrhagic Fever*	1976
Viral Hepatitis	1968
Whooping Cough	1940
Yellow Fever	1968

Notification of the diseases listed above should be made to: Dr. M. Chandrakumar, Director,

Kent Health Protection Unit
Preston Hall
AYLESFORD
Kent ME20 7NJ

Tel: 01622 710161 Fax: 01622 791644

* **Prompt telephone notification is essential for these cases, especially Meningitis. Notification should not be delayed pending the result of microbiological tests.**

APPENDIX 4

Environmental Health Departments

Ashford Borough Council - Tel: 01233 637311

Canterbury City Council - Tel: 01227 862000

Dartford Borough Council - Tel: 01322 343434

Dover District Council - Tel: 01304 821199

Gravesham Borough Council - Tel: 01474 337598

Maidstone Borough Council - Tel: 01622 602000

Medway Borough Council - Tel: 01634 333549

Sevenoaks District Council - Tel: 01732 227000

Shepway District Council - Tel: 01303 850388

Swale Borough Council - Tel: 01795 424341

Thanet District Council - Tel: 01843 225511

Tonbridge and Malling Borough Council - Tel: 01732 844522

Tunbridge Wells Borough Council - Tel: 01892 526121

Public Health On Call Doctors

Out of hours public health doctors “on call” can be contacted through the local hospital switchboards as follows:

East Kent

William Harvey Hospital
Ashford – 01233 633331

Royal Victoria Hospital
Folkestone – 01303 850202

Buckland Hospital
Dover – 01304 201624

Kent & Canterbury Hospital
Canterbury – 01227 766877

Queen Elizabeth The Queen Mother Hospital
Margate – 01843 225544

West Kent

Medway Maritime Hospital
Gillingham – 01634 830000

Maidstone Hospital
Maidstone – 01622 729000

Pembury Hospital
Tunbridge Wells – 01892 823535

Kent & Sussex Hospital
Tunbridge Wells – 01892 526111

Darent Valley Hospital
Dartford – 01322 428100

APPENDIX 5

Uses of Sodium Hypochlorite and Strengths of Solution

Guidance on the use of Sodium Hypochlorite and the recommended strengths are showing below[11]:

USE	DILUTION OF STOCK SOLUTION	%	AVAILABLE CHLORINE ppm
Blood Spills	1 in 10	1.0	10,000
Environmental Disinfection Hard surfaces and baths	1 in 100	0.1	1,000
Disinfection of Clean Instruments	1 in 200	0.05	500
Infant feeding utensils, catering surfaces and equipment	1 in 800	0.0125	125

Table 1: Sodium Hypochlorite and the recommended strengths

It is important to follow the manufacturer's instructions when using chemical disinfectants.

Undiluted commercial hypochlorite (bleach) solutions contain approximately 10% (100,000ppm) available chlorine[11].

APPENDIX 6

Policies, Guidelines and Information Leaflets

The following policies and guidelines are available from the Kent Health Protection Unit:

Policy for Meningococcal Disease in Kent

Policy for Prevention and Control of Tuberculosis

Policy for Head Lice Control in Kent

Policy for Screening Pregnant Women for Hepatitis B and Immunisation of Babies at Risk

Guidelines for Infection Control and Communicable Disease Control in Primary Care

Guidelines on the Control of Communicable Diseases in Schools and Nurseries

Guidelines for Needlestick Injury

Electronic copies are also available for the above publications

The Kent Health Protection Unit has a wide range of information leaflets available. These include:

Campylobacter
Chicken pox & shingles
Cryptosporidiosis
Dysentery
E-Coli 0157
Gastroenteritis
Giardiasis
Hand Foot and Mouth Disease
Hepatitis A
Hepatitis B
Hygiene for Schools and Nurseries
Impetigo
Legionella
Measles
Meningococcal Disease
Mumps
Parvovirus

Personal and Domestic Hygiene
Pertussis
Psittacosis
Ringworm
Rubella
Salmonella
Scabies
Scarlet Fever
Streptococcal Infection
Threadworm
Tuberculosis
Verrucae

Further information on any of the above can be obtained by visiting the Health Protection Agency website at www.hpa.org.uk

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