



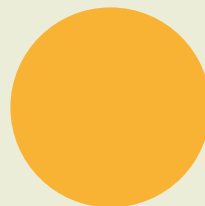
wipe it out

One chance to get it right



Essential practice for infection prevention and control

Guidance for nursing staff



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Foreword

Patients receiving health and social care are at risk of developing infection as a result of their compromised state of health, underlying medical conditions, or as a result of contact with health care interventions such as surgery, diagnostic testing or invasive devices.

In addition, health and social care settings can provide ideal conditions for micro-organisms to be transmitted between those who receive and give care. The close proximity and contact between each party and the continuous contact in a shared working and living environment all contribute to transmission.

Micro-organisms by their very nature are opportunistic, exploiting chances to colonise or enter the body, which may result in infection. Health care associated infections (HCAIs) may be caused by a large number of different micro-organisms, a significant proportion of which are avoidable if sustainable and robust systems are in place to manage risks associated with infection.

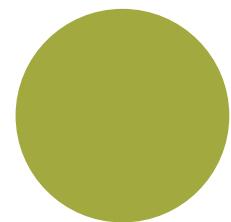
HCAIs are not confined to hospitals, and health care workers who practice in community settings (including GP surgeries, patients' own homes and care homes) have the same responsibilities as staff working in hospitals to prevent opportunities for infection to occur.

As nurses, midwives, and health care assistants, we have a professional and ethical responsibility to ensure our knowledge and skills are up-to-date and that we practice safely and competently at all times.

This guidance is intended as a reference document for use by RCN members, and highlights essential elements of good infection prevention and control practice.

Note about terminology

The word patient has been used throughout this text, but can also be understood to mean client or resident.





Introduction

Prevention and management of infection is the responsibility of all staff working in health and social care, and an integral element of patient safety programmes. It is applicable to all health and social care organisations, regardless of the patient setting or care provider.

Infection prevention and control is the clinical application of microbiology in practice. Infection or disease may be caused by different groups of micro-organisms such as bacteria, fungi, viruses or prions and can result in a wide variety of infections that include, for example, urinary tract, wound, respiratory, blood, bone and skin infections. Not all infections are transmissible, however some, such as clostridium difficile (*C. difficile*), influenza and norovirus, have the potential to spread from one patient to another causing infection with additional significant implications for health and social care facilities.

Health and social care settings can provide a challenging environment in which to manage risks associated with the transfer of micro-organisms from patient to patient or between the environment, equipment, staff and patients. Vulnerable patients, opportunist pathogens, and the intensity and complexity of health care interventions means that vigilance is required at all times.

Understanding how infections occur and how different micro-organisms act and spread is crucial to preventing infections. As nurses, midwives, and health care assistants, prevention is our primary aim.

Infection prevention and control is at the heart of the RCN's *Principals of Nursing Practice, as enshrined in Principal C – Nurses and nursing staff manage risk, are vigilant about risk, and help to keep everyone safe in the place they receive care*. These Principles of Nursing Practice provide an overarching framework for achieving quality nursing care and clarifying nursing's contribution to improving health care outcomes and patient experiences (Currie et al., 2011).

This publication provides important information and guidance on the essential principles of infection prevention and control and highlights why other issues, such as nutrition and hydration, should be viewed as an essential complementary component of nursing practice. This guidance is not intended as an in-depth reference document, but instead provides an overview of the core elements and rationale for infection prevention practice and associated activities. It is applicable to all nurses, midwives and health care assistants, regardless of their practice setting.

As a final point, it is important to note that local policies and guidance should always be followed and all staff have a duty to be aware of, and comply with, their organisation's requirements.

1 Highlighting good practice areas

The following section outlines some of the emerging important areas that minimise the risk of infection. No one area element of practice is responsible for reducing the risk of infection, rather they should be viewed as parts of a whole approach to reducing the risk to patients.

1.1 Organisational requirements

The human and financial burden of health care associated infections (HCAIs) is immense and is a priority area for health services around the world. The impact of infection for the patient can range from superficial to life threatening, and includes both psychological and physical effects. Patients may suffer pain, require additional interventions, or experience extended length of stay and long-term physical effects as a result of infection.

Current data on the number of HCAIs is based on estimates derived from prevalence studies and surveillance within the UK and Europe. The European Centre for Disease Control (ECDC) estimate that 4.1 million patients per year develop infections within the European Union (EU) as a result of health care, and that 37,000 deaths result annually due to such infections (WHO, 2011). The economic burden of HCAIs is significant; in England alone the estimated historical attributed cost is approximately £1 billion per year (Plowman et al., 1999). A large proportion of this cost is attributed to additional nursing costs (42 per cent) resulting from extended patient stay times.

All health care organisations in the UK are required to comply with national statutory or regulatory standards for infection prevention and control.

In England, the introduction of a statutory requirement for the management of infection prevention and control (Health and Social Care Act, 2008) resulted in the introduction of a Code of Practice (DH, 2010). Providers of regulated activities in England are required to meet or exceed the requirements of the Code, and compliance is determined through self-assessment, accompanied by external scrutiny by regulatory bodies such as the Care Quality Commission (CQC). In April 2011 the Code of Practice (England) applied to registered providers of adult health and social care, including primary dental care and independent sector ambulance providers. From April 2012 onwards it will extend to include primary medical care providers.

Scotland, Wales, and Northern Ireland all have organisations in place for regulating standards of infection prevention; the Regulation and Quality Improvement Authority (Northern Ireland), Healthcare Improvement Scotland (including the health care Environment Inspectorate), and the Healthcare Inspectorate Wales.

All staff, including nurses and health care assistants, need to be aware of their national regulatory or statutory requirements in order to support their employing organisation to meet and improve the expected standards which provide assurance to patients and the public that safe and quality health care systems are in place.

1.2 Nutrition and hydration

Malnutrition can be defined as a state of nutrient-deficiency, whether of protein, energy or micro-nutrients, that causes measurable harm to body composition, function and clinical outcome (NICE, 2006). Good hydration is a fundamental aspect of good nutritional care (RCN, 2007).

In the British Association of Parenteral and Enteral Nutrition's (BAPEN) screening week survey in 2010, malnutrition was found to be present in more than one in three adults on admission to hospital, more than one in three adults admitted to care homes and one in five adults admitted to mental health units. Malnutrition is common in all types of care homes and hospitals, wards and diagnostic categories, and spans all ages (BAPEN, 2011).

Although not always directly associated with infection prevention strategies, malnutrition and dehydration can compromise patients and contribute to infection prevention challenges. Malnutrition predisposes patients to delays in recovery from illness, and adversely affects body function, wellbeing and clinical outcome (MUST Report, 2003).

From an infection prevention perspective, the consequences of malnutrition include:

- prolonged wound healing due to lack of protein
- increased risk of skin breakdown and pressure sores
- the depletion of fat stores leading to lethargy and muscle wastage.

(RCN, 2005)

This may place patients at risk of wound, skin and respiratory infection.

The body's immune system is highly dependent on nutritional status and research shows that malnourished medical and surgical patients experience higher rates of complications and stay in hospital 30 per cent longer than nourished patients (Stratton et al., 2005). This is due to cells in the immune system requiring nutrients such as amino acids, vitamins and lipids to function effectively, which may be depleted due to malnutrition.

Complications of malnutrition can include:

- impaired wound healing
- impaired gastrointestinal tract function
- muscle atrophy
- impaired cardiac function
- impaired respiratory function.

(Shepherd, 2009)

A patient who is malnourished may present as being sleepy, and therefore may be reluctant to eat and drink. Dehydration contributes to the development of urinary tract infections, constipation and the increased risk of pressure ulcers and falls (RCN, 2007).

Patients on antibiotics are additionally at risk of complications such as oral fungal infections (for example, *Candida*) and disruption to gut flora resulting in antibiotic associated diarrhoea or *C. difficile* infection. Other medications can also produce side



effects – such as lack of appetite, nausea and vomiting which may further increase the risk of malnutrition (Shepherd 2009).

It is vital that on admission to hospital patients are screened to assess their nutritional status using a recognised tool such as the malnutrition universal screening tool (MUST), (NICE, 2006). If found to be at risk, an individual nutrition plan should be implemented. Food and fluid intake should be monitored and a scheme such as the ‘red tray system’ may be initiated to help staff support vulnerable patients (Age UK, 2010). If a patient is at risk of malnutrition, early referral to a dietitian should be considered for timely support.



1.3 Management of specimens for investigation

The common specimens that are collected and managed by nursing staff include blood, urine, faeces, sputum and wound swabs. Nursing staff may also undertake screening for MRSA or other multi-resistant bacteria according to local policies.

The correct collection, handling, and labelling of specimens is important as the quality of the specimen collected has implications for any microbiological diagnosis that may be reported and the subsequent prescribing of anti-microbial drugs such as antibiotics.

Incorrectly collected, stored, or handled specimens can result in inappropriate or unnecessary antibiotics being prescribed which can cause a patient to become susceptible to infections such as *C. difficile* and increase the possibility of antimicrobial resistance developing.

Specimens that are delayed in reaching the laboratory may cause ‘false’ results to be reported, as overgrowth of bacteria present in the original specimen in small numbers can cause other bacteria of significance to be ‘hidden’ and not identified. This is can be a particular problem with urine and sputum specimens.

A written local policy should be in place for the collection and transportation of laboratory specimens. You should be aware of this policy and its contents and:

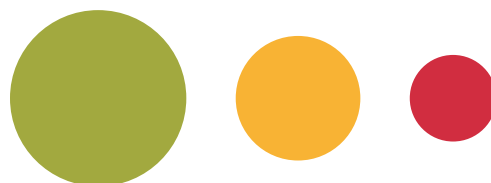
- be trained and competent to collect and handle specimens safely
- ensure that specimens are collected as aseptically as possible (see asepsis and aseptic technique) to avoid contamination with other bacteria that may influence the result
- collect samples (wearing protective clothing if indicated) in an appropriate sterile and properly sealed container
- complete specimen form using patient labels (where available) and check that all relevant information is included and correct – this includes all information on current or recent antibiotic prescriptions
- take care not to contaminate the outside of the container and the request forms as this places laboratory staff at risk



- ensure that specimens are transported in accordance with the Safe Transport of Dangerous Goods Act 1999 – refer to your local policy
- make sure specimens are sent to the laboratory as soon as possible; specimens should not be left by nurses stations/offices, sluices, GP reception areas or placed in staff pockets
- check regularly for results and once available enter into the patient's records; any results outside of normal limits should be highlighted to the patient's clinician team for review and possible action
- act on any results with infection prevention and control issues immediately
- ensure that specimen equipment, including viral media, is stored correctly and is not out of date.

It is important to note that it is essential to avoid contamination of normally sterile samples, such as blood and urine. However, faeces consist mainly of bacteria and contamination with a small amount of urine would not prevent sending off a stool culture.

To obtain further information on the collection, handling and labelling of specimens, refer to your local specimen collection or laboratory policies or speak to your infection prevention advisor or laboratory staff who will be able to provide you with advice.



2 The essential principles of infection prevention and control: standard infection control precautions

Standard infection control precautions, formerly known as universal precautions, underpin routine safe practice, protecting both staff and clients from micro-organisms that may cause infection.

By applying standard precautions at all times and to all patients, best practice becomes second nature and the risks of infection are minimised.

The elements of key nursing practice points are summarised in the following sections.

2.1 Hand hygiene

Preventing infections requires sustained compliance with a number of good practice areas – including the provision of clean environment, aseptic techniques, and the management of invasive devices. However, evidence shows that improving hand hygiene contributes significantly to the reduction of HCAs (Pratt et al., 2007). Evidence suggests that many health care professionals, including nursing staff, do not perform hand hygiene as often as is required or use the correct technique.

Health care workers have the greatest potential to spread micro-organisms that may result in infection due to the number of times they have contact with patients or the patient environment. Hands are therefore a very efficient vehicle for transferring micro-organisms.

Hospitals should be considered unique places that differ considerably in terms of the risk of potential infection spread compared to a 'normal' home environment. Although risks occur wherever direct contact between people or equipment occurs, in-patient hospitals have a large number of people living in a relatively small physical area. Additionally, patients may have direct contact with a large number of people (staff) as a result of their 24 hours a day care needs – this allows for many more opportunities for micro-organisms, some of which may be resistant to antibiotics, to be passed from one person to another than occurs in 'normal' daily life at home.

Infection can occur when micro-organisms are transferred from one patient to another, from equipment or the environment to patients or between staff. Disruption to the





patient's 'normal bacterial flora' can also predispose infection if bacteria are moved from one part of the body to another where they are not normally resident; for example, moving faecal bacteria from the groin to the face during washing, or performing mouth care without undertaking hand hygiene or changing gloves.

Throughout this guidance the term 'hand hygiene' refers to both hand washing and hand decontamination with alcohol hand gels.

When to perform hand hygiene

Hand hygiene can be undertaken using soap and water or hand sanitisers, namely alcohol hand gels. Alcohol hand gels provide an efficient and effective way of disinfecting hands and are actively promoted by health and social care organisations and as part of the World Health Organization's (WHO) *Five Moments for hand hygiene*. (see below).

Hand hygiene is relevant in all health care settings including hospitals, GP surgeries/clinics, patients' homes, mental health and care homes. Personal hand gel dispensers are available for settings where end-of-bed or free-standing dispensers are not appropriate for use.

All health care organisations (including GP surgeries, hospitals and care homes) should have policies or guidance relating to hand hygiene in place. All staff should be familiar with these and comply with them.

Hand hygiene at the point of care

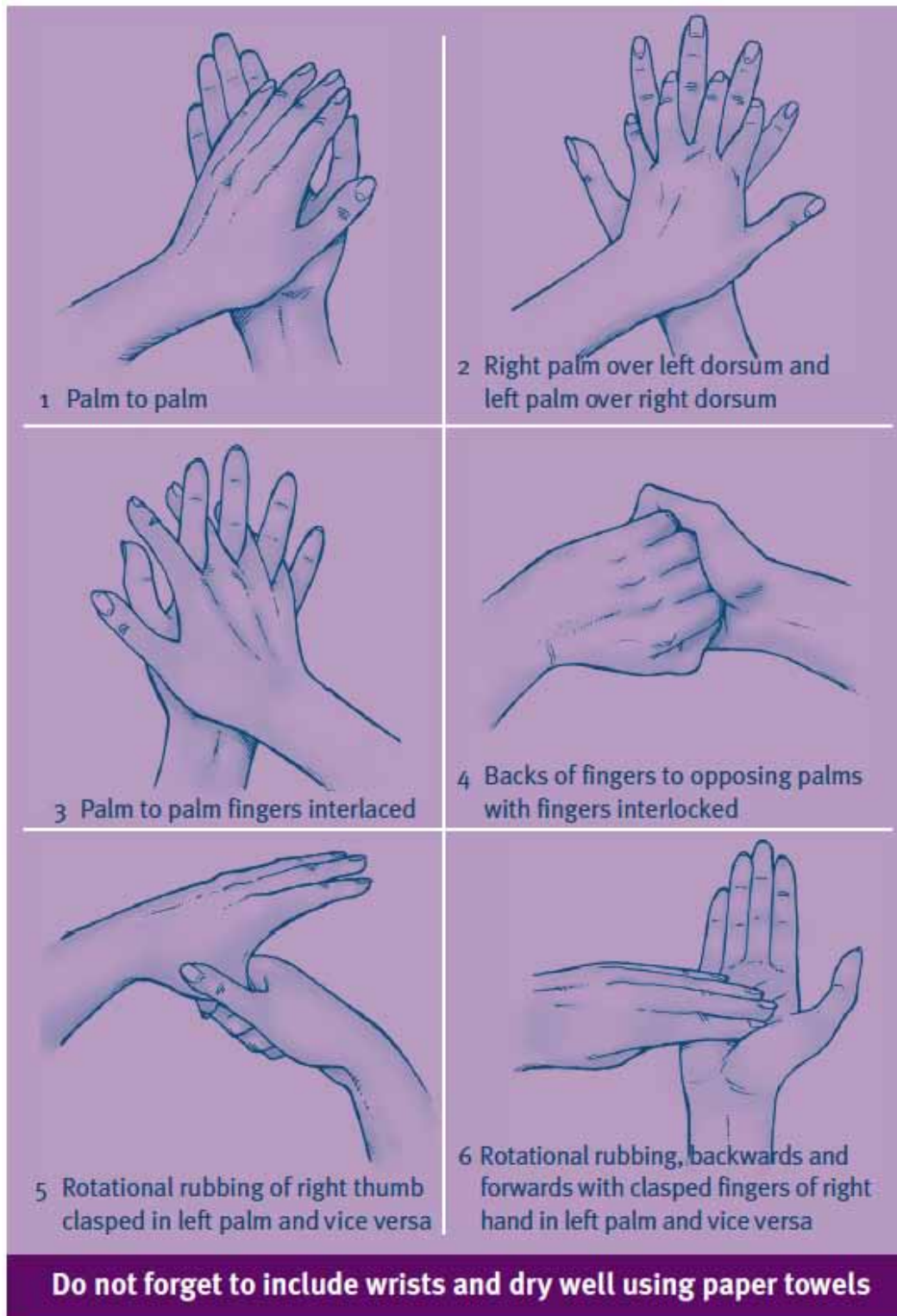
It is important to recognise that the hands of health care staff will always carry bacteria, be it their own bacteria or those that have attached as a result of activities (handling equipment, touching surfaces or patients).

Although it is not possible to 'sterilise' hands, the number of bacteria present can be reduced significantly through good hand hygiene practice. While it is not possible to perform hand hygiene on every occasion during the working day or night, there are a number of occasions when hand hygiene is specifically recommended to guide staff in best practice. A number of frameworks exist to guide staff decision-making on when to perform hand hygiene, including the World Health Organization's (WHO) *Five Moments for hand hygiene* (you can find more information on the WHO framework at www.who.int). Such frameworks provide a guide to support staff but may not be appropriate in all circumstances. It is therefore important that staff understand when to perform hand hygiene in different care settings.

Situations that pose the greatest risks include, but are not limited to:

- before patient contact
- before contact with a susceptible patient site (such as an invasive device or wound)
- before an aseptic task
- after exposure to body fluids (blood, vomit, faeces, urine and so on)
- after glove removal
- after patient contact
- after contact with the patient's immediate environment.

Figure 1: Hand washing and gel application





Use of alcohol hand rubs in health and social care

Alcohol hand rubs provide an effective and convenient alternative to hand washing with soap and water, and are used in both health and social care settings to support staff with hand hygiene. While very effective as destroying micro-organisms on 'socially clean hands', these are not effective in all circumstances.

Alcohol is not a cleaning agent and hands that are visibly dirty (in other words, have organic matter or soiling present on the surface of hands) or potentially contaminated as a result of caring for patients with viruses such as norovirus or diarrhoeal infections like *C. difficile* must be washed with soap and water and dried thoroughly to remove dirt, viruses or spores before hand rubs can be applied. This is because few current hand rub products have been shown to be effective with such infections.

Hand hygiene compliance

To support compliance with hand hygiene in the workplace, health care workers should meet the following standards while working:

- keep nails short, clean and polish free
- avoid wearing wrist watches and jewellery
- avoid wearing rings with ridges or stones (a plain wedding band is usually acceptable, but refer to local policies)
- do not wear artificial nails or nail extensions
- cover any cuts and abrasions with a waterproof dressing
- wear short sleeves or roll up sleeves prior to hand hygiene (refer to local dress code or uniform policies)
- report any skin conditions affecting hands (for example, psoriasis or dermatitis) to your occupational health provider for advice (see section on hand care below).

Hand hygiene facilities (sinks, hand towels, soap and alcohol hand gel dispensers)

Adequate hand washing facilities must be available and easily accessible in all patient areas. Hand washing sinks in clinical areas should have elbow or wrist lever operated mixer taps or automated controls and be provided with liquid soap dispensers, paper hand towels and foot-operated waste bins.

Alcohol hand gel must also be available at the 'point of care' in all primary and secondary care settings (National Patient Safety Agency, 2008).

All health care workers should bring any lack of, hand hygiene products (hand gels, soap or hand towels), or obstruction of sinks to the notice of their facilities staff or managers to ensure that these remain available at all times, and are not obstructed by bins or equipment.

Health care staff working in community settings, such as patients' own homes, should follow local guidance on hand washing should hands become soiled or in circumstances where facilities do not exist or may not be suitable to use.



Hand drying and conditioning

Wet hands transfer micro-organisms more effectively than dry ones, and inadequately dried hands can also be prone to developing skin damage. Disposable paper hand towels should be used to ensure hands are dried thoroughly. Fabric towels are not suitable for use in health care facilities as these quickly become contaminated with micro-organisms.

Disposable hand towels should be conveniently placed in wall-mounted dispensers close to hand washing facilities. Excessive refilling of paper towel dispensers should be avoided as it prevents towels being easily dispensed.

Hand cream should be provided to help staff maintain their hands in good condition. Communal tubs of hand cream should be avoided due to the contamination potential. Pump or wall mounted dispensers are preferred, with individual dispensers or tubes in community settings. Refer to further information on hand care and occupational dermatitis.

What if a patient or carer asks you ‘are your hands clean?’

Seeing staff perform hand hygiene is often perceived as a measure of confidence of overall hygiene by patients and their carers, and in recent years the right for patients to ask staff if they have cleaned their hands has received increased attention.

Ideally, although not always possible, health care staff should perform hand hygiene where the patient or carers can see this being undertaken. Staff should be aware that some patients and carers may challenge them as a result of observing practice in their local area or general concerns over HCAs as a consequence of their care. We should always aim to make patients and carers feel it is acceptable to ask staff if they have any concerns.

Hand care and occupationally acquired dermatitis

Staff that have or develop skin conditions on their hands, such as psoriasis or dermatitis, require special support. Non-intact skin prevents staff from performing hand hygiene effectively, placing both patients and themselves at risk of infection, and staff who are unable to perform hand hygiene due to skin conditions may need to move to non-clinical duties while receiving assessment or treatment. This situation may have implications for both the staff member and staffing levels of the employing organisation.

Nurses and health care assistants are recognised as being at risk of developing work-related contact dermatitis which can be caused by an allergic reaction (sensitisation) or an irritant reaction. It usually affects the hands but can affect any other part of the body which has contact with the allergen or irritant.

The signs and symptoms of work-related dermatitis can range from dry, red, itchy skin to painful blistering, cracking and weeping of the skin. Risk factors include prolonged glove use, use of soaps and skin care products, exposure to chemicals and repeated hand washing.

Under health and safety law, organisations need to assess the risks of dermatitis from work activity, carry out proactive and regular skin checks of their staff, and encourage staff to report any signs and symptoms to their occupational health department or manager. Organisations should incorporate advice on work-related dermatitis, its signs and symptoms, prevention and control, in any instruction and training programmes on hand hygiene.



The Health and Safety Executive (HSE) provides advice to workers who are at risk of developing dermatitis as a result of their work. Further information can be found at www.hse.gov.uk.

2.2 Using personal protective equipment

Personal protective equipment (PPE) is used to protect both health care workers and patients from risks of infection. The risk of infection occurring is reduced by preventing the transmission of micro-organisms to the patient via the hands of staff or visa versa. Gloves may also be required for contact with hazardous chemicals and some pharmaceuticals, for example, disinfectants or cytotoxic drugs. PPE includes items such as gloves, aprons, masks, goggles or visors.

Disposable gloves

Wearing gloves only when required is important, as the incorrect use of gloves can lead to several problems including:

- undermining local hand hygiene initiatives
- risk of skin problems such as contact dermatitis or exacerbation of skin problems on hands.

Gloves should be worn whenever contact with blood and body fluids, mucous membranes or non-intact skin may occur, but should not be considered a substitute for hand hygiene. Hand hygiene must always be performed following the removal of gloves.

Gloves should be put on immediately before the task is to be performed, then removed and discarded as soon as that procedure is completed. Gloves should never be worn 'just in case' as part of routine nursing care

The Control of Substances Hazardous to Health Regulations (2002) require employers to assess any substances hazardous to health, including biohazards within blood and body fluids (such as blood-borne viruses) and take steps to reduce the risk of exposure. Where exposure cannot be avoided, as is the case with a number of health care related activities, personal protective equipment, including gloves should be used.

Gloves can also present risks to the patient and health care worker. The choice of glove should be made following a risk assessment of the task about to be undertaken, the suitability of the gloves (including fit, comfort and dexterity) and any risks to the patient or to the health care worker.

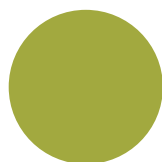
Types of gloves

Natural rubber latex (NRL) proteins found in latex gloves can cause severe allergic reactions in patients and staff with existing allergies. Latex can also lead to allergic contact dermatitis and occupational asthma in sensitised individuals.

Powdered latex gloves increase the risk of allergic reactions and should never be used.

Following a risk assessment for suitability and safety, if latex gloves are selected for use these must be low protein and single use (see HSE 2011 *Selecting latex gloves*, available at www.hse.gov.uk)

Polythene gloves are not suitable for use in health care.



Neoprene and nitrile gloves are good alternatives to natural rubber latex. These synthetic gloves have been shown to have comparable in-use barrier performance to natural rubber latex gloves in laboratory and clinical studies.

Vinyl gloves can be used to perform many tasks in the health care environment, but, depending on the quality of the glove may not be appropriate when handling blood, blood-stained fluids, cytotoxic drugs or other high risk substances. Please check the local policy for your workplace for further guidance.

Using gloves safely to protect yourself and your patients

In addition to latex other chemicals, known as accelerators, found in gloves can present a risk of work-related dermatitis.

There is a requirement to carry out health checks, known as health surveillance, on those exposed to hazardous substances. The Health and Safety Executive (HSE) advises that health checks are carried out on those exposed to NRL and other causes of work related dermatitis or occupational asthma as follows:

- an assessment of the worker's respiratory health and skin condition before they start a relevant job to provide a baseline record
- a regular (at least annual) enquiry for dermatitis and asthma; such an enquiry might be undertaken by written questionnaire, or orally during appraisal reviews and positive results should be referred to an occupational health professional for assessment
- a responsible person identified and known to staff, competent to deliver these duties, and with lines of referral to an occupational doctor or nurse, for the reporting of symptoms as they might occur
- staff known to be sensitised to NRL and those considered to be at a high risk of developing sensitisation (in other words, atopic individuals) should receive a higher level of health surveillance and a periodic clinical assessment by an occupational health doctor or nurse will normally be deemed appropriate
- a record of the health surveillance.



Under the Reporting of Diseases and Dangerous Occurrences Regulations (RIDDOR) 1995, there is a legal requirement to report occupational asthma or dermatitis related to NRL to the HSE.

Glove use and hand hygiene improvement programmes

Glove use is an integral element of safe health care practice, however evaluation of compliance with glove use has not to date received an equivalent amount of attention as compliance with hand hygiene.

The RCN recommends that, in order to try to understand compliance and this practice issue, that audits of glove use are incorporated within organisation's programmes of hand hygiene or associated practice areas.



Disposable plastics aprons

Disposable plastic aprons provide a physical barrier between clothing/skin and prevent contamination and wetting of clothing/uniforms during bathing/washing or equipment cleaning.

Aprons should be worn whenever there is a risk of contamination of uniforms or clothing with blood and body fluids and when a patient has a known or suspected infection.

As with gloves, aprons should be changed as soon as the intended individual task is completed. Aprons should not be worn routinely during shifts as part of normal activity but should be reserved for when required. Aprons should be disposed of immediately after use in accordance with local waste policies.

Impervious (i.e. waterproof) gowns should be used when there is a risk of extensive contamination of blood or body fluids or when local policy dictates their use for certain settings. For example, maternity or A&E settings, or when there are high risk respiratory infections or infections caused by some multi-resistant bacteria such as multi-resistant acinetobacter (MRAB). Consult your local infection prevention policies for more information.

Masks, visors and eye protection

Masks, visors and eye protection should be worn when a procedure is likely to result in blood and body fluids or substances splashing into the eyes, face or mouth – for example, childbirth, trauma, or operating theatre environments.

Masks may also be necessary if infection may be spread by an airborne route – for example, multi-drug-resistant tuberculosis or other high risk infections transmitted via the respiratory route. You should ensure that masks are always fitted correctly, are handled as little as possible, and changed between patients or operations.

Staff should be trained in the use of masks that require 'fit testing', such as those used during the recent influenza pandemic or other high risk respiratory infections, as these are not routinely used. Your infection prevention advisor will provide guidance on this. All masks should be discarded immediately after use in accordance with local waste policies, and you should always check your local policies for guidance on masks and their use.

If personal protective equipment is required it must be provided free of charge by the employer (Section 9, Health and Safety at Work Act 1974).

2.3 Safe handling and disposal of sharps

Sharps include needles, scalpels, stitch cutters, glass ampoules, bone fragments and any sharp instrument. The main hazards of a sharps injury are blood borne viruses such as hepatitis B, hepatitis C and HIV.

It is not uncommon for staff to be injured by the unsafe or poor practice of others; for example, cleaners who sustain injuries as a result of sharps being placed in waste bins. Sharps injuries are preventable and learning following incidents should be put in place to avoid repeat accidents.

The most recent National Audit Report (2003) on safety in the NHS found that 17 per cent of reported accidents in the NHS were due to sharps injuries. Some estimates put the number of injuries as high as 100,000 per year (Godfrey, 2001). Between 1997 and 2007, however, there were just under 4,000 significant occupational exposure incidents reported to the Health Protection Agency (HPA, 2008). Significant exposures are percutaneous or mucutanenous where the source patient is hepatitis B, hepatitis C or HIV positive.

To reduce the risk of injury and exposure to blood borne viruses, it is vital that sharps are used safely and disposed of carefully, following your workplace's agreed policies on use of sharps. Education and guidance should be available through your employer on how to manage sharps safely.

Some procedures have a higher than average risk of causing injury. These include surgery, intra-vascular cannulation, venepuncture and injection. Devices involved in these high-risk procedures include:

- IV cannulae
- needles and syringes
- winged steel needles (known as butterfly needles)
- phlebotomy needles (used in vacuum devices).

To reduce the use of needles and syringes, the use of 'safety engineered devices' to support staff undertaking cannulation, phlebotomy and so on should be supported by employing organisations.

Legislation and sharps injuries

The overarching law is the Health and Safety at Work Act (1974) which places general duties on employers to ensure, so far as reasonably practicable, the health, safety and welfare of his or her employees. (Note: this law applies to England, Scotland and Wales; Northern Ireland has very similar health and safety laws but with different titles and dates).

In relation to sharps injuries the Health and Safety at Work Act requires employers to provide a safe working environment, safe equipment, and training and information and instructions of safe systems of work.

Other legislation includes, but is not limited to:

- Management of Health and Safety at Work Regulations (1999)
- Control of Substances Hazardous to Health Regulations (2002)
- Reporting of Diseases Injuries and Dangerous Occurrences Regulations 1995 (RIDDOR)
- Safety Representatives and Safety Committee Regulations (1977)
- Provision and Use of Work Equipment Regulations (1998).

Consequences of not complying with the law

Health care organisations can be subject to criminal law enforcement action if they fail to comply with the requirements of the law in relation to the prevention of sharps injuries. In 2010 a hospital trust was fined more than £20,000 after a health care worker contracted hepatitis C following a sharps injury. The trust was found guilty of breaching the Health and Safety at Work Act (1974) and the Control of Substances Hazardous to Health Regulations (2002).





Sharps best practice points

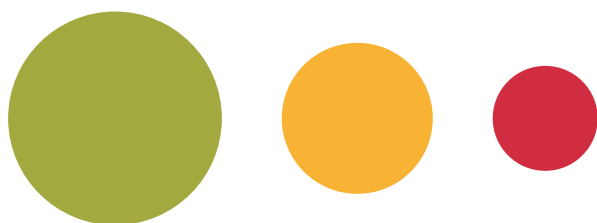
You should ensure that:

- handling of sharps is kept to a minimum
- syringes or needles are not dismantled by hand and are disposed of as a single unit straight into a sharps container for disposal
- sharps containers are readily available as close as possible to the point of use (sharps trays with integral sharps boxes are a useful resource to support this practice point)
- needles are never re-sheathed/recapped
- needles are not broken or bent before use or disposal
- arrangements should be put in place to ensure the safe disposal and transport of sharps used in a community setting such as patients' homes (RCN, 2011)
- all sharps containers should conform to UN standard 3291 and British Standard 7320
- sharps containers are not filled to more than two thirds
- sharps boxes are signed on assembly and disposal
- sharps bins are stored safely away from the public and out of reach of children (in other words, not stored on the floor or at low levels)
- staff report sharps injuries in line with local reporting procedures/policies
- staff attend training on the safe use of sharps and safety engineered devices
- staff are aware and comply with their local sharps or inoculation injury policy.

If you notice any of the above procedures are not being followed properly by colleagues you should seek advice from your infection control team who will provide guidance for staff on the safe use and disposal of sharps.

Employers must offer hepatitis B vaccinations free of charge to at risk groups who are exposed to blood and body fluids including nurses and health care assistants. Nurses and health care workers should avail themselves of this vaccination and any necessary follow-up blood tests or boosters (DH, 2007).

The RCN has published guidance on *Sharps safety* (publication code: 004 135) which can be downloaded from www.rcn.org.uk/publications



European Directive on the prevention of sharps injuries

In May 2013 a new European Directive (2010/32/EU) will come into force in the UK, requiring employers to assess the risks of sharps injuries and where possible eliminate the use of sharps – for example, through the use of needleless systems. Where sharps cannot be eliminated, steps should be taken to reduce the risk of injuries through the use of safety engineered sharps devices. Clinical staff and their representatives should be involved in the selection and evaluation of such devices. The directive will apply to all workers in the hospital and health care sector including those working in the private and public sector. Students and agency nurses are also covered. Those delivering health care activities in any other place – for example a prison – would also be covered.

Underlying principles of the directive

There are a number of underlying principles which need to be applied to ensure the effective implementation of the directive. These include:

- the prevention of exposure to sharps to be a priority
- the need for a well-trained, adequately resourced and secure (in other words, confident and competent) health service workforce
- in accordance with their training, workers take care, as far as possible, for their own health and safety and that of other persons affected by their actions
- never assume there is no risk of exposure to blood borne viruses (BBVs) following a sharps injury
- acknowledge the important role of safety representatives in sharps injury prevention and the development of health and safety policies and practices in the workplace
- the importance of partnership working between key stakeholders - including infection prevention specialists, occupational health, health and safety, and procurement/ supplies - and consultation with workers and their representatives on safe systems of work, selection of safety equipment and how best to carry out training, information and awareness raising
- the employer's duty to ensure the health and safety of workers including psycho-social factors and work organisation – for example, stress, shift work and working hours
- the need to promote a no blame culture and that incident reporting procedures should focus on systemic factors rather than individual mistakes.

2.4 Safe handling and disposal of waste

Any health care worker that produces waste as part of their job is classified as a 'waste producer'; this effectively applies to all nurses, health care assistants and midwives. The waste generated may be one of a number of types of waste including sharps, hazardous, offensive, municipal (household) and pharmaceutical (medicinal) waste.

Nurses have a professional and moral obligation to protect the health of their patients and share the responsibility to sustain and protect the natural environment (ICN, 2009). Waste reduction, segregation and disposal are all crucial to sustaining a healthy environment and reducing subsequent public health implications and financial costs. Nursing staff are central to efforts on green issues such as waste management as they represent the largest proportion of the health care worker workforce that purchase equipment and manage



subsequent waste generated. The ineffective management of health care waste can also result in additional costs related to the disposal of waste if not segregated appropriately (RCN, 2011).

Your workplace should have a written policy on waste segregation and disposal which provides guidance on all aspects, including special waste, like pharmaceuticals and cytotoxic waste, segregation of waste, and audits. This should include the colour coding of bags used for waste, for example:

- municipal/domestic waste (black bags)
- offensive waste (tiger striped)
- infectious waste (orange).



All health care and support staff should be educated in the safe handling of waste, including segregation, disposal and dealing with spillages. Organisations should consider systems for segregating waste that allows it to be recycled.

If any of the above are not being implemented, health care staff should raise this with their employers due to the potential impact on finances (increased costs as a result of poor waste management), non-compliance with waste pre-acceptance audits, and unnecessary carbon costs as a result of incineration or transport processes.

RCN guidance (RCN, 2011) on *The management of waste arising from health, social and personal care* (publication code 004 187) has been updated following the publication of the Department of Health's Health Technical memorandum HTM 07-01 *Safe management of health care waste* (edition 2) (DH, 2011).

2.5 Spillage management

Spillages of blood and bodily fluids should be dealt with quickly, following your workplace's written policy for dealing with spillages.

The policy should include details of the chemicals staff should use to ensure that any spillage is disinfected properly, taking into account the surface where the incident happened – for example, a carpet in a patient's home, or a hard surface in a hospital.



3 Other practises that contribute to reducing the risk of HCAs

3.1 Asepsis and aseptic technique

Asepsis is a process that seeks to prevent or reduce micro-organisms from entering a vulnerable body site such as a wound in surgery, an IV catheter, or during the insertion of invasive devices such as urinary catheters. Asepsis reduces the risk of an infection developing as a result of the procedure being undertaken.

An aseptic technique includes a set of specific actions or procedures performed under controlled conditions. The ability to control conditions will vary according to the practice setting, however the following principals should be applied in all cases:

- ensure the area where the procedure is to take place is as clean as possible
- ensure as little disturbance as possible occurs during the procedure which could cause air turbulence and the distribution of dust – for example, bed making, floor sweeping or buffing, estates work
- perform hand hygiene prior to and during the procedure as required
- use sterile equipment
- reduce contamination of the vulnerable site by using forceps or sterile gloves and by not touching sterile parts of the equipment (the non-touch technique).

If staff are expected to undertake aseptic procedures, they should receive appropriate training and be deemed competent to practice in line with local policies.

3.2 Decontamination of equipment

Decontamination is an umbrella term used to describe processes that make equipment safe for re-use which includes the destruction or removal of micro-organisms. Inadequate decontamination is frequently associated with outbreaks of infection in hospitals, and all health care staff must be aware of the implications of ineffective decontamination and their responsibilities to patients, themselves and their colleagues.

Decontamination is a combination of processes – cleaning, disinfection and/or sterilisation – that are used to ensure a reusable medical device or patient equipment is safe for further use.

Equipment used in health care may be designated as single use, single patient use or reusable multi-patient use. Any equipment not designated as a single use item must be

made safe following use to prevent micro-organisms being transferred from equipment to patients and potentially resulting in infection. Decontamination is the method for achieving this.

Every health and social care provider (hospital, GP surgery, clinic or nursing home) should have in place clear systems for identifying which staff are responsible for cleaning which equipment (for example, nurses, cleaners or dedicated equipment cleaning teams). All staff should be aware and comply with local policies for decontamination of equipment.

Cleaning is the critical element of the process and should always be undertaken thoroughly regardless of the level of decontamination required.

Single use equipment

Single use equipment (where the item can only be used once) should not be re-processed or re-used. Examples include disposable jugs, thermometer covers, syringes and needles.

Single use equipment will be clearly marked with the following symbol:



Single patient use equipment

Single patient use equipment (where the item can be repeatedly used for the same patient) includes items such as nebulisers and disposable pulse oximeter probes. Between use, items must be cleaned in line with local policies. The decontamination of such items must not be performed in hand washing sinks.

The RCN has been lobbying for the provision of dedicated local decontamination facilities to support staff who undertake decontamination of 'low risk' equipment in patient areas – please refer to the *10 minimum standards' for infection control* (RCN, 2009).

Single patient use equipment should be clearly identified for use by that patient only.

Reusable multi-patient use equipment

Reusable, multi-patient use equipment such as commodes, beds, pressure relieving mattresses and blood pressure cuffs, requires decontamination after each episode of use by a patient. This must be undertaken in line with local policies in appropriate facilities.

Cleaning

This process uses water and detergent to remove visible contamination but does not necessarily destroy micro-organisms, although it should reduce their numbers. Effective cleaning is an essential prerequisite to both disinfection and sterilisation.

Disinfection

This process uses chemical agents or heat to reduce the number of viable organisms. It may not necessarily inactivate all viruses and bacterial spores. Where equipment will tolerate sterilisation, disinfection should not be used as a substitute. The use of disinfectants is governed by the Control of Substances Hazardous to Health (COSHH)

regulations which ensure that employers must assess and manage the risks from exposure to disinfectants and provide staff with information, instruction and training. Refer to your local policies for more information.

Sterilisation

This guidance does not include specific information relating to the sterilisation of reusable items. This process requires additional measures and greater scrutiny and validation of processes involved. For further information, consult your local infection prevention policies or seek advice from your infection prevention advisers.

Table 1: Level of decontamination required according to risk for reusable equipment

Risk level	Equipment use description	Level of decontamination needed	Examples
High risk	In close contact with a break in the skin or mucous membrane. Introduced into sterile body areas.	Equipment must be cleaned and sterilised after each patient use. Equipment should be stored in a sterile state for subsequent use.	Examples include surgical instruments.
Intermediate risk	In contact with mucous membranes. Contaminated with particularly virulent or readily transmissible organisms. Prior to use on immune compromised patients.	Cleaned and sterilised or disinfected between each patient.	Examples include a bedpan, flexible endoscope.
Low risk	In contact with healthy skin. Not in contact with patient.	Cleaning after each use satisfactory under normal circumstances. Disinfection may be undertaken in outbreak situations on advice of the infection control team.	Examples include a bed frame or patient chair/wheelchair, toilet.

Adapted from the Medical Devices Agency publication, *MAC manual* (Part 1) 2010

Use of wipes for the decontamination of equipment

Wipes are increasingly being used to decontaminate low risk patient equipment or environmental surfaces. Currently there is no guidance available to support users or purchasers of wipes and little evidence to support wipes as an effective infection prevention intervention. Dirt removal should be considered the main purpose of a wipe, but antimicrobial activity as a result of the inclusion of a disinfectant may be a bonus in some circumstances.

The selection of disinfectant wipes is important as infection prevention efforts may be compromised if a product is not fit for its intended purpose. The selection of an appropriate product can be a complex process that includes the consideration of scientific information and the interpretation of laboratory test data. The need for rigor in purchasing any item for use in a health care setting is also important to ensure financial resources are used appropriately.

The RCN has issued guidance on the selection and use of wipes (RCN, 2011).

3.3 Achieving and maintaining a clean clinical environment

A dirty or contaminated clinical environment is one of the factors that may contribute to HCAs. Exposure to environmental contamination with spores of *C. difficile* is one example of occasions when the environment contributes to the development of infection.

Many micro-organisms can be identified from patients' environments and these usually reflect bacteria carried by patients or staff (in the case of *S. aureus*). Contact with the immediate patient or a contaminated environment by the hands of staff can also be a route for transmission of micro-organisms. High standards of cleanliness will help to reduce the risk of cross-infection and are aesthetically pleasing to patients and the public.

Good design in buildings, fixtures and fittings is also important to support efficient and effective cleaning. Guidance on building design is available throughout the UK via organisations such as Health Facilities Scotland (HFS), NHS Wales Shared Services Partnership, Facilities Services, Health Estates (Northern Ireland) and the website Space for Health (www.spaceforhealth.nhs.uk).

Relevant documents should always be consulted for new builds and refurbishment projects, and infection prevention and control advice sought to help ensure that buildings are fit for purpose and comply with the necessary standards regardless of whether these are NHS organisations or not.

Cleaning of the environment

Cleaning removes contaminants, including dust and soil, large numbers of micro-organisms, and the organic matter that may shield them – for example, biofilms, faeces, blood and other bodily fluids. Cleanliness applies to the inanimate environment as well as equipment and fixtures and fittings.

A number of different methods are available for cleaning, which include traditional cleaning with cloths and detergent or microfiber technology. Wipes are occasionally used for some items; refer to RCN guidance on the selection of wipes for further information. Additional technologies are also available for specialist use after outbreaks of infection or as part of a routine environmental decontamination programme, for example, hydrogen peroxide vapour.

The following principles are important for ensuring a clean and safe care environment is maintained:

- ensure an appropriate cleaning specification is in place to meet the needs of the environment where patients are cared for or use; this applies to inpatient and outpatient environments



- a local cleaning policy should be in place clearly defining which areas are cleaned and by whom
- local policies for the cleaning of patient equipment which defines who cleans what equipment, how often and where this should be undertaken
- regular monitoring or audits of cleanliness contracts should be in place to provide assurance that systems are working well
- any issues with cleanliness or the cleaning contract (in-house or external contracts) should be reported immediately as per local policy to ensure that standards of cleanliness are maintained
- all nurses, midwives and health care assistants have a responsibility to be aware of their local cleaning specification to ensure that any issues are highlighted immediately should they occur; while overall responsibility usually lies with the ward/department manager, all staff have a responsibility to support them and ensure that standards do not fall when managers are not on duty
- cleaning equipment such as vacuums, floor scrubbing machines and polishers should be cleaned regularly and properly maintained
- appropriate dedicated facilities for storage of cleaning equipment should be in place and these should be maintained in a clean and tidy condition.



3.4 Appropriate use and management of indwelling devices

Indwelling devices are common in health care and when used appropriately provide valuable assistance to providing patient care and positive patient outcomes.

However, the use of indwelling devices is not without risk and the development of infection is common as by their very nature they bypass the body's natural defence mechanisms such as skin and mucous membranes.

Common intra-vascular devices (for example, urinary catheters, IV cannula or central venous catheters) are frequently responsible for HCAs such as urinary tract, insertion site infections or bloodstream infections.

Prevention of intravascular line associated infections

These devices provide direct access to the bloodstream. The use of peripheral or central vascular devices is a common cause of infection which can lead to life threatening blood stream infections (bacteraemia).

The types of organisms implicated in these infections vary but frequently involve members of the staphylococcus family such as methicillin-resistant staphylococcus aureus (MRSA), or coagulase negative staphylococci (CNS) in neonates.

These may enter the device insertion site as a result of contamination from the skin during insertion of the device or as a result of contamination on staff hands during manipulation of the device.

Peripheral intravascular cannulas represent the most common invasive device used and these may be temporary (for a few hours) or longer term (up to 72 hours).

Prevention of infection is complex, and good practice is required at all stages of care whilst these devices are in situ. This includes, but is not limited to, insertion and ongoing management.

Insertion

Appropriate and thorough disinfection of the skin is crucial prior to insertion of any intravascular device – such as a central, peripheral, peripherally inserted central catheter (PICC) or femoral line.

The proper use of an appropriate skin disinfectant product will reduce the number of viable micro-organisms present at the site of insertion, reducing the risk of contamination at the insertion site at the time of introduction. The use of 2 per cent chlorhexidine in 70 per cent isopropyl alcohol is recommended for skin disinfection unless a known sensitivity is present (Pratt et al., 2007).

Best practice points

The following best practice points should be observed:

- skin disinfectant solution should be applied using gentle friction – repeated up and down, back and forth strokes for 30 seconds – to reduce the number of resident bacteria present at the insertion site which could serve as a source of infection
- the solution should be allowed to fully air dry
- use of single-use preparations to prevent contamination of multi-use containers
- use of an aseptic technique when inserting devices, including hand hygiene
- compliance with local policy for selection of insertion sites
- application of a transparent semi-permeable dressing to the site to permit on-going observation of the site
- documentation of the process.

Note: due to the variety of skin disinfection products available, users and purchasers should ensure that the product they select is intended by the manufacturer for use in skin disinfection prior to invasive procedures such as line insertion.

Ongoing management

Day-to-day management of the device is important in order to assess patency (that the device is open and unrestricted) and to detect any signs or symptoms of infection. As with insertion principles, staff must follow local policies/guidance which should include the following recommendations:

- a daily review (at a minimum) to assess the continuing need for the device; this review should be documented
- regular documented checks for patency of the device, signs of infection and dressing
- hand hygiene prior to any contact with the device or associated administration sets
- cleaning/disinfection of any add-on devices/attachments
- the replacement of peripheral intravascular devices after 72 hours (or according to local policy) or sooner according to clinical indications.

Staff should always follow local workplace policy on the use and management of intravascular devices and ensure that such devices are only ever used if required, and removed as soon as no longer required.





3.5 Managing accidental exposure to blood-borne viruses

Blood borne infections are most frequently associated with those caused by hepatitis B, hepatitis C and HIV which may be found in blood and other body fluids such as amniotic fluid, synovial fluid, vaginal fluid, semen, and breast milk. They are not associated with excretions such as saliva, urine, vomit or faeces unless blood is present.

Accidental exposure to blood and body fluids can occur by:

- percutaneous injury – for example, from used needles, instruments, bone fragments or significant bites that break the skin
- exposure of broken skin – for example, abrasions, cuts or eczema
- exposure of mucous membranes, including the eyes and the mouth.

Figure 3 illustrates the actions to be taken immediately following any accidental exposure to bodily fluids, including blood.

Managing the risk of HIV

The risk of acquiring HIV infection following occupational exposure to HIV-infected blood is low (DH, 2008). A risk assessment needs to be made urgently by someone other than the exposed worker about the appropriateness of starting post exposure prophylaxis (PEP), ideally an appropriately trained doctor designated according to local arrangements for the provision of urgent post-exposure advice.

If a health care worker is exposed to blood, high risk blood and body fluids or tissue known or strongly suspected to be contaminated with HIV, the use of antiretroviral post exposure prophylaxis (PEP) is recommended. Ideally, this is given within an hour of exposure (the incident), hence the importance in undertaking first aid immediately, followed by prompt reporting of the incident.

Staff should ensure they are familiar with their local policies and procedures should such an incident occur in order to ensure prompt treatment for themselves or co-workers if affected. Advice and follow-up care from your occupational health adviser/department will also be essential.

Managing the risk of hepatitis B (HBV) and C (HCV)

Hepatitis B (HBV)

Because the virus is more infectious and has greater prevalence, the risk of contracting HBV from a sharps injury in a health care setting is much higher than HIV.

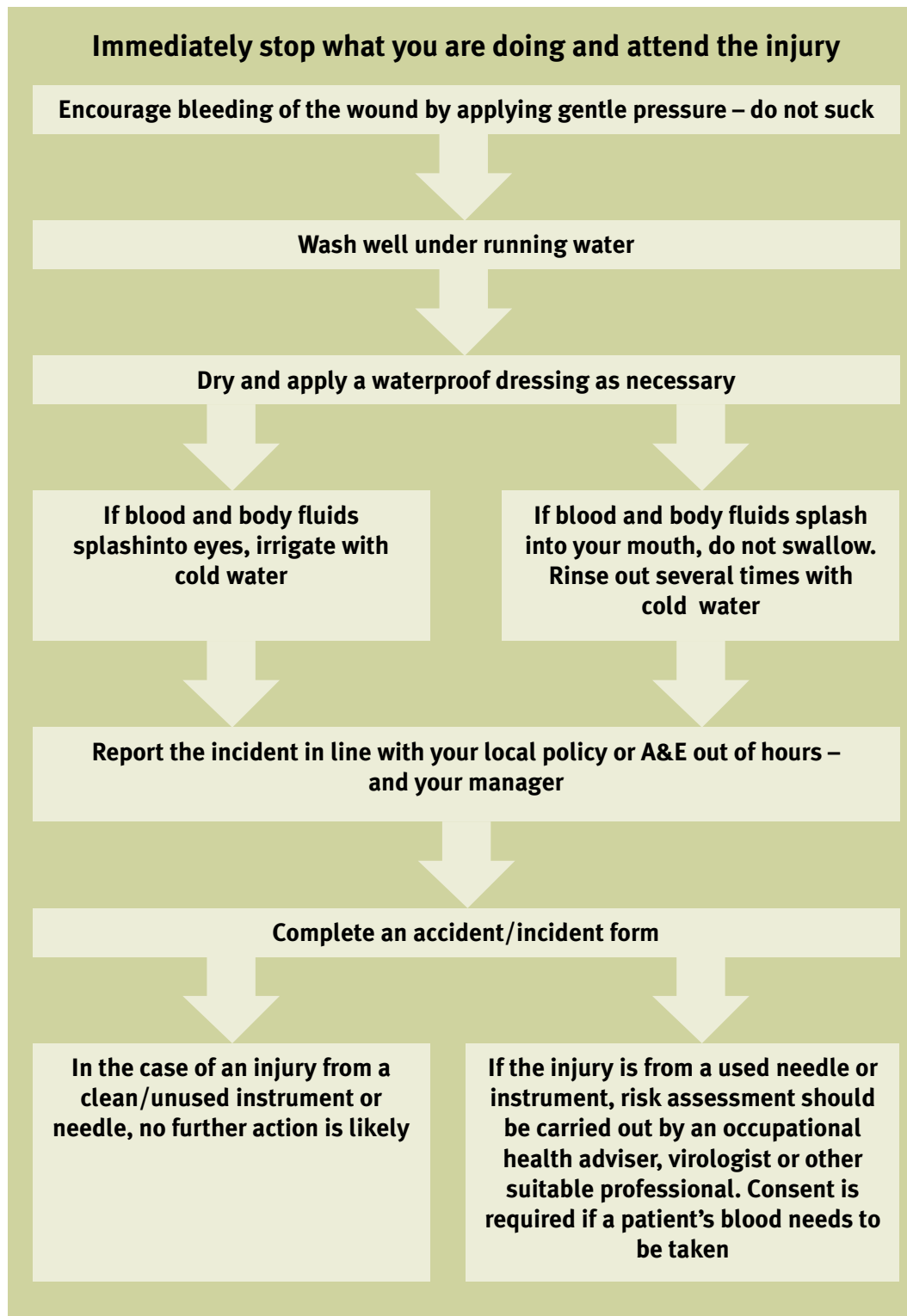
All nurses and health care assistants should be vaccinated against hepatitis B. Those at risk of occupational exposure, particularly health care and laboratory workers, should have their antibody titres checked one to four months after the completion of a primary course of vaccine (DH, 2007). Refer to local policies for information on monitoring of antibody titre levels and boosters following exposure incidents.

Hepatitis C (HCV)

There is currently no vaccine available that can prevent infection following exposure to the hepatitis C virus. Prevention is the key to avoiding exposure and subsequent infection, and staff should ensure they comply with local blood borne diseases policy and wear appropriate protective clothing, reporting any exposure incidents as these occur.

Figure 3: Managing accidental exposure to blood and body fluids

The following actions are recommended following accidental exposure to blood and body fluids, regardless of whether or not the source is known to pose a risk of infection.





3.6 Use of antimicrobial agents

The introduction of antimicrobial agents such as antibiotics in the 1940s revolutionised the way infections could be treated and saved the lives of many patients who would otherwise have died.

Antimicrobial agents include antibacterials/antibiotics (for bacterial infections), antifungal agents (for fungal infections) and antivirals (for viral infections). Antimicrobial agents can be used either systemically (within the body) or topically (for example, creams) and can be used as a prophylaxis (as a preventative measure, for example, before surgery) or as treatment when infection is present. Regardless of the method of use, antimicrobial agents are unique in that they only have an effect on the micro-organism causing the infection and not the host (patient).

The use of antimicrobial agents brings with it increased risks of resistance to the drugs used to treat infection. Resistance can occur naturally or as a result of micro-organisms developing resistance over time as a consequence of 'selective pressure' from the over use of antimicrobial drugs.

When resistance occurs the antimicrobial agent may not work as effectively. In practice this means that infections may be harder to treat, or in extreme circumstances that no effective treatment is available.

This is a serious event and has far reaching implications from a public health perspective, as the spread of antimicrobial resistant organisms could render the use of antimicrobial drugs ineffective. The risk of increasing resistance is not confined to the UK and is known to be an international issue.

To combat this threat it is important that simple precautions and principles are adhered to, and nurses are ideally placed to support implementation of these precautions. These include, but are not confined to:

- ensuring that specimens are collected and managed appropriately (see Section 1.4 of this guidance) if an infection is suspected
- checking specimen results promptly to ensure that a laboratory result is consistent with signs and symptoms of infection – identification of a micro-organism alone is not indicative of infection, and symptoms (or lack of) of infection must be considered when prescribing antimicrobial drugs
- dispensing antimicrobial agents at the correct prescribed intervals to ensure the minimum inhibitory concentration required in the body is maintained in order to have an effect on the causative organism
- ensuring that the prescribed course of treatment is completed and not extended unnecessarily or cut short
- ensuring that infection prevention precautions are implemented and adhered to so as to prevent transmission of resistant micro-organisms within the clinical environment
- discussing any concerns regarding treatment with the infection control advisers, local pharmacist or relevant medical team
- participating in antimicrobial audits and disseminating findings within the care team to support effective communication on current practice and how care can be improved.

3.7 Communication

Patient and public anxiety about HCAs, including those caused by MRSA and *C. difficile*, is often based on misperceptions about the risks of infection and the precautions to prevent transmission. Nursing staff can do a great deal to allay fears by communicating effectively, without breaching confidentiality. For example, nurses can:

- make available information for patients, visitors and staff and answer any questions that may arise from this
- display notices which describe the precautions needed if a patient is in isolation
- talk to patients about how they can help themselves and support staff in preventing infection
- include multi-disciplinary support staff in team meetings during outbreaks
- ensure all staff understand the actions they need to take, for example, following discharge or involvement of other multi-disciplinary staff
- inform general practitioners on discharge or transfer if their patient has an infection or an infectious condition and ensure all documentation is completed.





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Further resources

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BAPEN MUST tool (malnutrition universal screening tool)
www.bapen.org.uk/must_tool.html

Care Quality Commission

www.cqc.org.uk

Council of Europe Resolution ResAP (2003)3 on food and nutritional care in hospitals

www.bapen.org.uk/pdfs/coe_leaflet.pdf

www.bapen.org.uk/res_council.html

Health and Safety Executive – dermatitis in health and social care.

www.hse.gov.uk/healthservices

Health Inspectorate Wales

www.hiw.org.uk

Health Protection Agency

Handwashing

www.hpa.org.uk

National Nurses Nutrition Group

www.nnng.org.uk

NHS Quality Improvement Scotland

www.healthcareimprovementscotland.org

RCN Nutrition Now campaign

www.rcn.org.uk/newsevents/campaigns/nutritionnow

RCN principals of Nursing Practice

www.rcn.org.uk/development/practice/principles

RCN Infection Prevention and Control

www.rcn.org.uk/ipc

RCN Safety Representatives

Information on the role of an RCN safety representative can be found on the RCN website at www.rcn.org.uk/support

Regulation and Quality Improvement Agency

www.rqia.org.uk

Social Partnership Forum

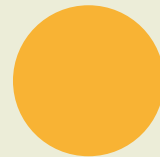
Tackling healthcare associated infections through workforce policies and practices: a partnership approach.

www.socialpartnershipforum.org/publications



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