

Infection Control Manual



Manual for Infection Control

During this module, you will be asked some questions to simply provoke thought and test your current knowledge please have a notepad or supervision workbook to hand to make notes. Your performance will only be measured by the answers you select when completing the knowledge test at the end of the module.



Contents

Learning Outcomes	4
Complementary Manuals.....	4
Chapter One.....	5
Law and Legislation	5
Management of Health and Safety at Work Regulations 1999	5
Reporting of Injuries Diseases and Dangerous Occurrences Regulations (RIDDOR) 1995 (revised Oct 2013).....	6
The Workplace (Health, Safety and Welfare) Regulations 1992	6
Control of Substances Hazardous to Health Regulations (COSHH) 2002	6
Chapter Two.....	8
How Does Infection Spread?	8
Common Cross-Contamination Sources:.....	8
Chain-Breaking	9
Bacteria.....	9
Viruses	10
Fungi	10
Parasites	10
Access to Information.....	10
Chapter Three	11
Infection Control.....	11
Risk Assessment.....	11
Control Measures	12
Cleaning Hand.....	12
Personal Protective Equipment (PPE).....	13
Personal Protective Equipment (PPE) Regulations 2002	13
Cleaning	14
Cleaning Tips:.....	15
Training.....	15
Chapter Four	16
Other Infection Control Strategy	16
Individual Responsibility.....	16
Written Policies and Procedures	16
Waste Management	17
Sharps Tools.....	17
Laundry.....	17
Pests	18
Conclusion.....	18
References	19

Learning Outcomes

- Knowing the cause and spread of infection
- Understanding how to prevent and control the spread of infection
- Knowing the relevant legislation
- Understanding the importance of risk assessment
- Knowing about cleaning and personal protective equipment

Complementary Manuals

- Health and Safety
- Record Keeping
- Person-centered Approaches
- Administration of Medication



Chapter One

Law and Legislation

Controlling the spread of infection within care settings is a major priority for all care providers. They must carry out risk assessments; develop and communicate policies and procedures and make sure that all staff receive training and information to understand why infections occur and how they can be prevented.

All care providers have a responsibility under the Health and Social Care Act 2008, updated by regulations in 2014, to prevent and control infections; this is regulated by the Care Quality Commission and there is a code of practice for meeting the terms of the relevant regulations. These are the essential standards for quality and safety outcome 8: Cleanliness and infection control. (Code of Practice for health and adult social care on the prevention and control of infections and related guidance; available from <https://www.dh.gov.uk>)

There are 10 criteria that providers must meet:

1. Systems to manage and monitor the prevention and control of infection.
2. Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections.
3. Provide suitable accurate information on infections to service users and their visitors.
4. Provide suitable accurate information on infections to any person concerned with providing further support or nursing/ medical care in a timely fashion.
5. Ensure that people who have or develop an infection are identified promptly and receive the appropriate treatment and care.
6. Ensure that all staff and those employed to provide care in all settings are fully involved in the process of preventing and controlling infection.
7. Provide or secure adequate isolation facilities.
8. Secure adequate access to laboratory support as appropriate.
9. Have and adhere to policies, designed for the individual's care and provider organizations, that will help to prevent and control infections.
10. Ensure, so far as is reasonably practicable, that care workers are free of and are protected from exposure to infections that can be caught at work and that all staff are suitably educated in the prevention and control of infection associated with the provision of health and social care.

(Department of Health 2009)

This manual will explain what these criteria mean to you and your roles and responsibilities for meeting them. The criteria do not apply equally to all types of care environments; the code of practice gives advice on how providers of adult social care may interpret, for example, criterion 8 which may not be relevant to them.

There are other Acts and regulations which affect your working practices and protect you at work:

Management of Health and Safety at Work Regulations 1999

These regulations give specific responsibilities to employers, managers and supervisors for carrying out risk assessments and implementing appropriate control measures. The risk assessments must protect employees and anyone who might be affected by work practices; this could mean your clients or visitors to your premises.

Control measures to meet legal requirements:

- A written health and safety policy (if you employ five or more people).
- Written record of assessment of risks to employees, contractors, customers, partners and any others who use the premises. This should include written evidence of significant findings.
- A structured plan for the organization, monitoring, control and review of any measures that have been put in place as a result of the risk assessment.
- Access to competent health and safety advice.
- Providing information to employees about the risks in the workplace and how they can be protected from them.
- Provide training for employees on how to deal with the risks.
- Make sure there is sufficient and suitable supervision in place.
- Appoint a suitably competent person to be in charge of health and safety.
- Discuss with employees their risks at work alongside methods of prevention and protection.
- Monitor occupational health.

Reporting of Injuries Diseases and Dangerous Occurrences Regulations (RIDDOR) 1995 (revised Oct 2013)

The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations enable enforcement agencies to monitor workplace accidents and ill health. Among other things they can see which types of workplace experience which types of illness and injury; and track the spread of infections.

Employers and managers have a duty to report certain incidents either by telephone (fatalities and major incidents only) or online (www.hse.gov.uk/riddor); reportable events include: Accidental death.

- Accidents resulting in more than 7 days absence from work.
- Certain diseases / illnesses (a full list is accessible from the RIDDOR website).
- Injuries to non-employees requiring immediate medical attention.
- Near misses (i.e., incidents that could have caused serious injury but didn't e.g., a hoist sling tearing while in use).
- Events such as fires or collapse of buildings.

The Workplace (Health, Safety and Welfare) Regulations 1992

These regulations mean that your employer has to protect your health and welfare by maintaining certain facilities and standards within your place of work; these include:

- Everywhere should be clean.
- There should be adequate ventilation.
- The temperature should be reasonable to work in.
- There should be suitable and sufficient lighting.
- You must have access to toilets, drinking water and washing facilities.

Control of Substances Hazardous to Health Regulations (COSHH) 2002

Infected bodily fluids are a hazardous substance. Employers must take a risk assessment-based approach to protect their employees and others from hazardous substances they may come into contact with at work. They should:

- Make suitable and sufficient assessments of the risks posed by any hazardous substances in the workplace.
- Get information on health effects from suppliers.
- Consider level, type and duration of exposure.
- Be aware of any relevant occupational exposure standard, maximum exposure limit or similar occupational exposure limit.
- Carry out health surveillance and monitor exposure when necessary.

- Reassess risks when necessary.

Employees must follow the employer's safe policies and procedures for handling and controlling hazardous substances and must report any problems or concerns.

As you can see the law places duties on all employers (and employees) to control the risks of illness and infection in the workplace.

Additional learning:

- * Think about, aside from legal reasons, why else it is important to control illness and infection.

Chapter Two

How Does Infection Spread?

Infections are illnesses which can be passed from person to person, or transferred from one part of the body to another. Infections can be caused by bacteria, viruses, fungi and parasites; these are all known as pathogenic microorganisms and they can cause all kinds of illness from minor skin irritations to life threatening conditions such as HIV or MRSA.

Anyone can become infected, but some people are more vulnerable than others. Certain circumstances will increase individual's likelihood of becoming infected and of experiencing more serious effects.

Factors increasing vulnerability include:

- Extremes of age – very young or very old.
- Pregnancy.
- Existing illness or poor physical health.
- Lack of mobility.
- Poor diet.
- Incontinence.
- Presence of an open wound or stoma.
- Sharing facilities.
- Smoking.

Some of these factors reduce people's immune system and, therefore, make it harder for them to fight off infection; others such as lack of mobility may increase their dependence on others and, therefore, their contact with others.

Pathogenic microorganisms breed and multiply very quickly in favorable conditions and can be passed from person to person directly or through environmental contamination. These microorganisms can be transferred in bodily fluids via touch and coughs and sneezes; they may be airborne or, in the case of parasites like head lice, they may be able to walk.

People can pick up infections on their skin e.g., athlete's foot; in open wounds e.g., MRSA; via their respiratory or digestive systems (by breathing in or swallowing) e.g., a cold or food poisoning.

Infections can be

- a. local – their effect is confined to one part of the body e.g., a fungal nail infection.
- b. systemic – the infection affects a number of organs or the entire body e.g., HIV or blood poisoning.

When infections move from one person to another this is described as cross contamination. When this happens because one person touches another, or coughs or sneezes on them, this is direct cross-contamination. If this happens because bodily fluids (blood, vomit, saliva etc.) have got onto something which has then come into contact with, or been touched by, someone else, this is called indirect cross-contamination.

Common Cross-Contamination Sources:

There are three common areas or opportunities for cross-contamination:

- Items in the workplace which people regularly touch.
- Items which may be contaminated with bodily fluids.
- Equipment used by multiple clients.

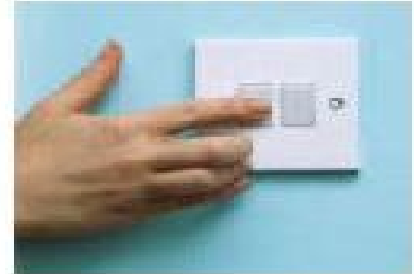
It is possible for people to be carriers of infection without being affected by it; this is described as colonization. For example, many people carry the bacteria staphylococcus aureus around their nose; it causes them no harm, but they

can infect others by sneezing or by touching their nose and then touching someone else or something else e.g., a light switch.

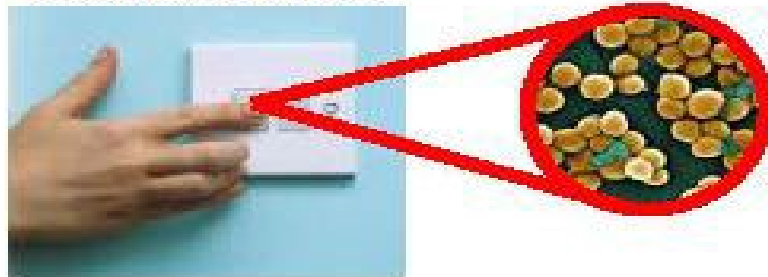
You touch your nose



You touch a light switch



Bacteria breeds on switch



Someone else touches switch



Bacteria transfers to new host



Chain-Breaking

The above illustration shows how an infection carried by one person can end up making someone ill; infection prevention and control is about breaking the chain that links person number 1 to person number 2. By introducing a number of control measures we can significantly reduce the risk of infection.

For example:

- **Good personal hygiene** (washing, cleaning clothing etc.) – means fewer microorganisms to pass on.
- **Thorough cleaning** – reduces the number of microorganisms in the environment and the time available for them to breed.
- **Regular hand washing** – reduces the risk of transferring infection from hand to mouth.

Bacteria

Bacteria breed by splitting in 2 so their numbers can double every 20 minutes or so if they have the right conditions. They do best in temperatures of 5 – 63 with sources of moisture and food.

Common bacterial illnesses include strep throat and salmonella; there are also the 'so called' superbugs such as MRSA which are caused by bacteria that have become resistant to antibiotics and are usually picked up in hospital.

Viruses

Viruses are carried, and bred, in living cells so they are transferred from person to person via face to mouth (faecal/oral route), sexual contact or blood to blood contact. Faecal / oral contact tends to occur when people fail to wash their hands properly and contaminate the environment; blood to blood can be the result of an insect bite or sharps injury, as well as direct contact.

Viral infections include norovirus, bronchitis, colds and influenza.

Fungi

Fungi can be airborne so they may be inhaled as well as being picked up on the skin. They cause conditions such as athletes' foot, thrush and unsightly nail infections which can be difficult to treat.

Parasites

Parasites live in, or on, people and are transferred by direct and indirect cross-contamination. Some are microscopic while others are easily visible to the naked eye. Common parasites include head lice, scabies and different types of worms.

Access to Information

The criteria for meeting the requirements of the Health and Social Care Act 2008 include the need to provide suitable information to infected clients. When an individual has been diagnosed with an infection, they and their loved ones, must be given information to help them to protect themselves and to understand actions being taken to prevent the infection's spread.

The information must be in a format that the client can understand and should highlight the importance of good hand hygiene and appropriate controls on visiting.

If clients are to be transferred to another care setting the new service providers must be given details of their infection.

Chapter Three

Infection Control

As we saw in unit one care providers have a duty to prevent and control the spread of infection. The first criterion for meeting outcome 8 of the CQC's standards of quality and safety highlights the need for a risk assessment-based approach to infection control.

All care providers should nominate an individual to take the lead on infection prevention and control (IPC) and take responsibility for carrying out assessments of risk, implementing control measures and putting in place training for staff. In small organizations the IPC can be the registered provider or a senior staff member; larger providers will have more formal structures including an infection control team led by an IPC who will advise the manager on infection control issues and manage monitoring and compliance.

Risk Assessment

The care provider must:

- Identify clients at increased risk of infection.
- Thoroughly assess the risks to individuals.
- Identify ways of controlling risk.
- Record assessments and controls.
- Implement control measures.
- Monitor effectiveness.

All clients must be individually assessed for vulnerability to infection when they are admitted to a care setting, and at regular intervals thereafter. The employer must have in place policies to identify that reassessments may be necessary when the person is ill or if their personal care needs change.

To assess an individual client's risk of infection the assessor will need to know:

- Their age.
- Any medical conditions they have.
- Their level of mobility.
- Whether they are underweight, overweight or a healthy weight.
- If they have any open wounds.
- If they have a stoma.
- Whether they are continent.
- If they smoke.

The more risk factors that are present, the more likely it is that the person will contract infections; action should be taken to reduce the person's risk factors where possible and then to introduce special control measures to protect the person from harm. For example, to reduce risk factors care providers can:

- Treat existing medical conditions.
- Work with the client and a physiotherapist to improve mobility.
- Help the client to improve their diet and encourage weight loss or gain.
- Reduce the likelihood of pressure sores and provide appropriate care for wounds.
- Support the client to improve continence.
- Help the client to stop smoking.

At the same time as supporting these changes, providers can introduce the following types of control measures to reduce clients' risk of infection:

- Personal protective equipment – gloves and aprons.
- Cleaning policies and procedures.
- Training for staff on issues such as hand washing, personal hygiene and catheter care.
- Information for clients on self-protection e.g., not sharing personal items such as towels; regular hand washing and appropriate use of disposable tissues when they have a cold

Note: You might think that the idea of 'teaching' someone how to blow their nose is a bit silly, but the government thinks it important enough to run 'catch it and bin it' advertising campaigns to tell us all how to use tissues and waste bins to protect against the spread of influenza.

It's important that the findings of risk assessments are appropriately communicated to staff, and clients, to support the implementation of control measures. People need to understand the reasoning behind safe work practices to be motivated to follow them.

Control Measures

Cleaning Hand

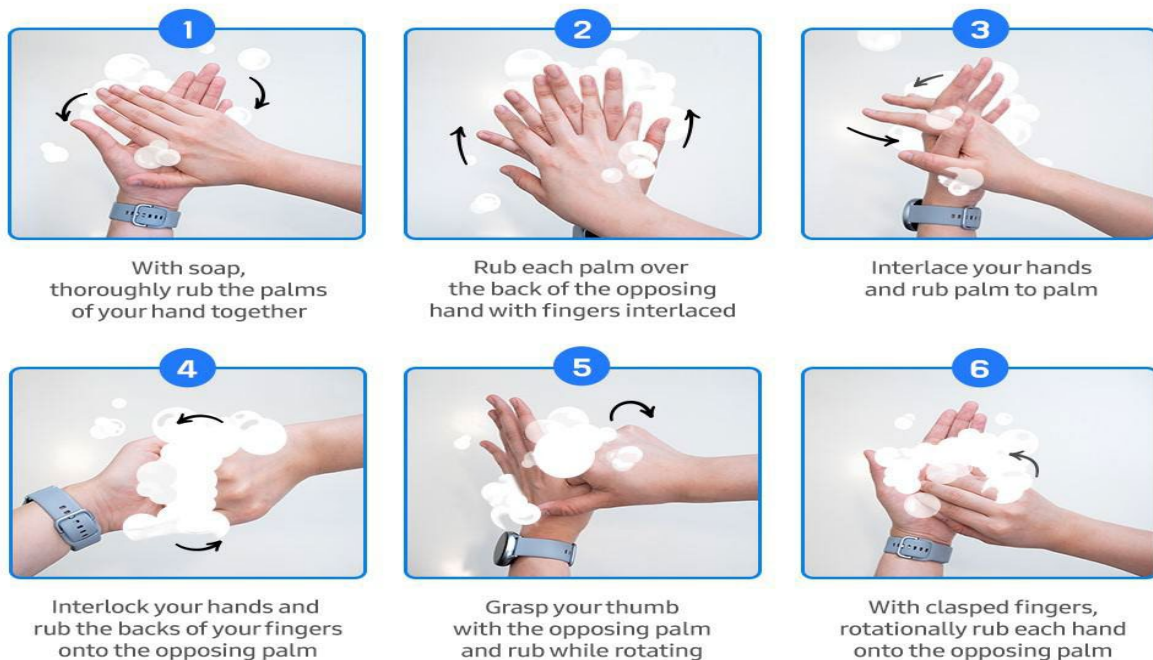
The single most effective way of preventing the spread of infection is to ensure good hand washing practices. Staff, clients and visitors alike should be encouraged to wash their hands regularly, thoroughly and effectively. Alcohol gels or rubs are not a replacement for soap and water as, although they control pathogenic microorganisms, they do not remove dirt. Gels and rubs are a useful addition to hand washing and should be placed where visitors will use them as they enter or leave the building.

Where clients are at high risk of infection, they and their visitors should be given information about the importance of hand washing and the correct techniques to use.

All caregivers should keep their nails short and avoid wearing jewelry, watches, nail varnish or false nails. Any cuts to the hands or wrists should be covered with waterproof dressings. These measures will allow for proper cleaning and reduce the risk of bacterial growth under rings, watches and nails.

Hand washing facilities should be available in the right places to ensure that caregivers can use them before and after physical contact with clients. Hands should be washed before and / or after:

- Personal care tasks.
- Food handling.
- Using the toilet.
- Blowing your nose.
- Having a cigarette.
- Starting and finishing work.
- Touching animals.
- Handling laundry.
- Washing up.
- Handling waste.



Source: World Health Organization (WHO)

Clients should be encouraged to wash their hands when they get up; before and after eating; after using the toilet; when they have blown their nose; and at any time that they are visibly dirty. Visitors should wash their hands on arrival and before leaving as a minimum. To wash hands properly use warm running water and soap and follow these stages:

1. Wet hands and wrists.
2. Put soap on palms and rub the palms together.
3. Rub interlaced fingers together.
4. Rub the backs of each hand and between fingers.
5. Scrub the tips of your fingers.
6. Rub around the thumb joint.
7. Rinse.
8. Dry thoroughly with a paper towel; place this in a sealed bin after use.

This process should take at least 20 seconds; bacteria and other microorganisms will be washed down the drain and wiped off on the paper towel and disposed of in the bin.

Personal Protective Equipment (PPE)

Personal protective equipment such as gloves and aprons help to reduce the spread of infection between staff members and clients. Employers should specify when they are to be used and how, and must make sure they are available when and where they are needed.

Personal Protective Equipment (PPE) Regulations 2002

PPE is a way of reducing risk when a hazard cannot be adequately controlled by other means. If a risk assessment identifies a need for PPE the employer must:

- Provide appropriate PPE free of charge for each employee affected by the hazard.
- Make sure the equipment is available when and where it is needed, and is in good working order.
- Make sure PPE complies with appropriate British and European standards (it should be CE marked).

Employees must wear PPE when indicated by risk assessments and use it according to the information or training they have received. Clients' care plans should give details of when PPE, particularly gloves, is to be used. In some care settings, it is common practice for gloves to be worn for any situation where a caregiver touches a client; this is not necessary or desirable. Overuse of gloves can be upsetting for clients who come to feel that they are somehow 'unclean' or undeserving of the comfort of human touch.

Using gloves:

- Wear gloves whenever you are at risk of contact with bodily fluids e.g., when dressing a wound or changing urine-soaked sheets.
- Gloves have no magical properties – wear new ones for every separate task and wash your hands after removing them.
- Dispose of them in a sealed bin after use.
- Gloves must be the right size for the individual wearing them and suitable for the task.

Wearing plastic aprons:

- Clothing picks up all sorts of contaminants including pet hair, crumbs and flakes of skin; aprons will protect your clients from these and protect your clothes from contamination with bodily fluids.
- Aprons should be put on for personal care tasks e.g., toileting, and removed and disposed of straight after.

Cleaning

Your employer must have in place written policies and procedures for the thorough and regular cleaning of all parts of the care environment and the equipment used within it. Cleansing rotations will include the following details:

- What is to be cleaned?
- Who is to clean?
- When, and how often, cleaning is to be carried out.
- Materials to be used.

Equipment that is used by different clients e.g., hoists must be cleaned after use and items used by one client only such as slide sheets and bed rails should be cleaned regularly and whenever they are likely to be contaminated.

Cleaning materials used within the workplace must be stored safely and you should have access to information about their safe handling; see page 6 for information on Control of Substances Hazardous to Health Regulations 2002. Items such as mops and cloths should be color coded and disposable to identify the areas they can be used in and avoid equipment meant for use in toilets ending up in the kitchen.

Cleaning equipment and substances will have been chosen for their effectiveness and suitability for use. If personal protective equipment (PPE) such as gloves and aprons are provided you will be expected to use them to protect yourself from harm; prolonged use of even mild detergents and disinfectants can lead to skin irritation and other health problems.

The way you clean should ensure that dirt and grease are removed and bacteria are reduced. This may require different cleaning products to be used; detergents such as soap deal with grease while disinfectants (including hot water) kill bacteria.

Cleaning Tips:

- Remove loose dirt.
- De grease and wash with detergent and cloth.
- Rinse.
- Disinfect (Rinse if its chemical disinfectant).
- Dry.

Training

The Infection Prevention and Control lead for the workplace should take responsibility for staff training on all issues affecting infection control. The following information and techniques are of particular importance:

- Effective hand washing.
- How to clean.
- The importance of personal hygiene.
- Use of PPE.
- Safe handling of hazardous substances.
- How infections are caused.

Chapter Four

Other Infection Control Strategy

In unit three we looked at ways in which the spread of infection should be assessed and some general control measures which should be introduced. In this unit, we will look further at individuals' responsibilities and control measures for specific situations.

Individual Responsibility

All caregivers have a responsibility to ensure their own personal hygiene; overall cleanliness is an important way of reducing the risks of cross-contamination.

If you are suffering from any illnesses, especially highly contagious types such as flu, sickness and diarrhea, you must report them to your manager. Certain illnesses will exclude you from working and failure to report them may lead to you being fined under health and safety or food handling legislation.

Apart from keeping your hands clean you must also ensure that your body, hair and clothing are washed regularly. It is a good idea to have clothes that you wear only for work and to change into, and out of, them in your workplace. If you wear your work clothes to and from work you may cross contaminate between the two environments; you could possibly introduce infection to your family and; if you stop at a shop on the way home, you run the risk of infecting the wider community.

It's important that you are aware of your employer's policies and procedures for infection control and that you follow the safe practices they introduce. Look out for any signs of dirt and contamination in your workplace and deal with them appropriately. Check equipment before using it and if you are unsure about its cleanliness, clean it yourself or report it and do not use it until it has been dealt with. If you have any concerns about the cleanliness of the environment you work in or the general standards of infection control, you must raise them with your manager using appropriate reporting methods.

Written Policies and Procedures

Your employer should produce written policies and procedures for all aspects of infection control. Among other things, they must cover:

- Cleaning.
- Building maintenance.
- Waste management.
- Laundry.
- Pest control.
- Management of water supplies.
- Control of the risk of Legionella.
- Food hygiene.

These policies should be written in plain English and kept up to date with reviews when necessary. They should be available to be read and should be communicated to all who need to be aware of them.

Employers have a duty to monitor control measures that are introduced to ensure their effectiveness and they should identify times when reviews will be carried out. Policies will need to be checked and changed, if necessary in the following circumstances:

- When new clients are admitted.
- If an infection occurs.
- If control measures fail.
- If existing clients' vulnerability to infections changes.
- If new regulations are introduced.

Waste Management

In your workplace, you will deal with different types of waste which must be handled correctly according to their level of risk. You must familiarize yourself with your organization's policies for safe waste management but, as a general guide:

- The presence of any waste within the premises is a fire and infection risk so it should be kept to a minimum i.e., bins should be emptied regularly into appropriate containers outside the premises.
- General waste should go into black bags and should be picked up by the council.
- Clinical waste goes in yellow bags for separate collection.
- If you are a residential care provider medicines can be returned to the pharmacy.
- If you provide nursing care you must have a contract with a suitable private company for medicine disposal.
- Consideration should be given to the possibility of recycling.

Wear gloves when handling waste and wash your hands after dealing with it.

Sharps Tools

It is possible that you care for people who need to inject medications and that you may have to deal with contaminated needles and other sharps. There is a risk that if you get a needle stick injury infection may be introduced to your bloodstream; there is then a very small chance that you may be infected by diseases including HIV and hepatitis.

To reduce the risk, you should:

- Always take care when handling sharps; do not pick them up awkwardly.
- Place them straight into a suitable sharps bin without trying to replace any cap.
- Replace bins before they are full.

If you are injured, encourage bleeding by gently squeezing the wound; clean with running water; report to your manager; complete an accident form and seek medical advice.

Laundry

Clothing and bed linen may be contaminated with microorganisms and present a risk of cross-infection. The way laundry is handled will depend on how soiled it is i.e., is it visibly dirty or do we know that it is contaminated by bodily fluids; and what the material is.

Clients' clothing must always be treated with care and washed according to label instructions. Your employer should have in place policies and procedures for dealing with laundry so that you know how to separate items for washing and the temperature at which things should be washed.

When handling laundry, wear disposable tear proof gloves and apron, avoid too much contact with soiled items and wash your hands when you have finished. Never put soiled laundry on the floor.

Pests

Rats, mice, cockroaches, flies, ants, birds, household pets and anything else with fur or feathers can contaminate the environment with bacteria, viruses, droppings, urine and even body parts.

It may be necessary to get professional help to plan pest control; certainly, if you become aware that you have a problem you should immediately get an expert in to deal with it. Generally, prevention is better than cure and a pest control company will be able to give you advice and support to stop pests becoming a problem.

Signs that pests are on the premises include:

- Droppings.
- Chewed packaging.
- Paw prints.
- Nests.
- Smells (mouse urine in particular has a strong odor).
- Black, greasy marks on skirting boards.
- Visible holes in wall.
- Shed fur / skin.
- Ways to prevent / control pests
- Store food in robust / sealed containers or at least 45 centimeters off the ground.
- Dispose of food waste in sealed bins and regularly remove to a bin at a suitable distance from the premises.
- Keep outside bins in a covered area or make sure they have well-fitting lids and do not allow them to overflow.
- Keep waste packaging to a minimum.
- Clean all areas regularly, rodents like unused dark corners.
- Block any holes and spaces around pipes – mice only need a gap the size of their skull to crawl through.
- Keep all foods covered.
- Install an 'insecticide' to kill flies.
- Fit windows with fly screens and keep doors closed as much as possible.

Note: If pests are attracted to bins and waste outside premises, they will soon start to look for ways to get inside

Conclusion

Infection prevention and control is an important concern for all care providers. The introduction of infection to the environment can lead to client illness, possible hospitalization or even deaths of vulnerable individuals; staff sickness; poor reputation and investigation.

Care providers must use risk assessment to identify people at risk and ways in which infection could occur, and then introduce measures to prevent and control the spread of infection.

All employees have a responsibility to follow their employer's policies and procedures for infection control and must take particular care to wash their hands regularly and maintain good standards of personal hygiene.

Clients and visitors should be provided with information to protect themselves



References

Code of Practice for Health and adult social care on the Prevention and Control of Infections and related guidance

This can be downloaded from www.dh.gov.uk

Good practice in infection prevention and control

Royal College of Nursing

<https://www.hse.gov.uk/managing/legal.htm>