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INFECTION CONTROL

STUDENT MANUAL

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Contents

ProTrainings Infection Control Course Manual

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This manual is designed to be used exclusively by students who have completed an online ProTrainings Infection Control Course or a classroom-based course that has been certified by a ProTrainings approved instructor.

On completion of a classroom course, you will receive a certificate and wallet sized card as shown below.

Online students can print off a certificate and certified CPD certificate upon completion of their course. You can validate that your certificate is valid as well as receive a PDF version online from the bottom of www.proinfectioncontrol.co.uk. This can be downloaded and printed from your free ProTrainings login area.

This manual is for all versions of our infection control courses.

Make sure you register online for the latest updates. Online students are automatically signed up to receive updates. Your instructor should have registered you already, and if you are doing an online course, you will have already received your login details if you have this book. If you have any problems logging in or with certification, please email or call us.

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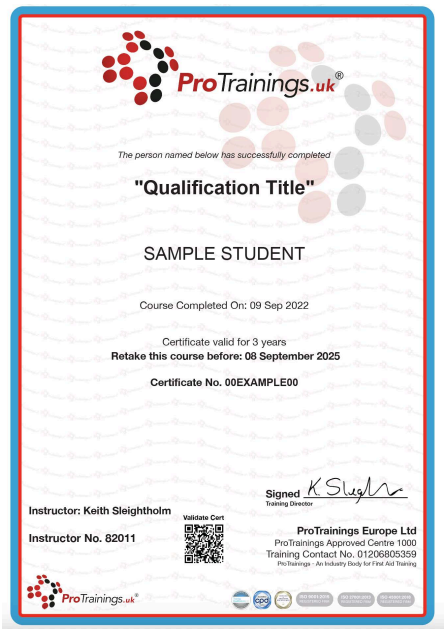

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Who is at risk from infection?

The risk of infection from bloodborne pathogens is not just limited to doctors and nurses, but also to people in these vocations:

- Custodial services (prisons, detention centres, homes)
- Education
- Embalming and crematorium work
- Emergency services (ambulance, fire, police, rescue)
- First aid
- Hairdressing and beauticians' work
- Healthcare (hospitals, clinics, dental surgeries, pathology departments, community nursing, acupuncture, chiropody, associated cleaning services)
- Laboratory work (forensic, research, etc.)
- Local authority services (street cleaning, park maintenance, refuse disposal, public lavatory maintenance)
- Medical or dental equipment repair
- Military
- Mortuary work
- Needle exchange services
- Plumbing
- Sewage processing
- Social services
- Tattooing, ear and body piercing
- Vehicle recovery and repair

This list is a guide and there are many other areas where you can be at risk, including the risk that you are under in outside work life.

The Infection Cycle

It is important to understand that infection and disease is not the same thing. Infection occurs when an organism enters the body and starts to grow. However, disease only occurs if the organism starts to multiply and produce symptoms. Our bodies have tremendous capacity to fight off organisms. Diseases result when these protective mechanisms fail or are compromised.

Entrance to the host generally occurs though the normal openings, such as the oral cavity, nose, eyes, genitalia, anus and open wounds. While a few organisms can grow at the initial site of entry, many invade and start to grow in different organs where they are hard to detect. Some organisms grow within the host cells, whereas others grow freely in the blood.

For an organism to cause disease, there are several factors that must be met before an infection can occur.

The organism must be able to grow, multiply, be able to enter the body and have the ability to cause disease.

Infectious agents, which cause disease in humans, include:

- Bacteria
- Viruses
- Parasites
- Fungi

Cross-infection is the physical movement or transfer of harmful bacteria from one person, object or place to another, or from one body part to another (such as touching a staph-infected hand to the eye).

When this cross-infection occurs in a care home or long-term care facility it is called nosocomial infection. Community-acquired infections are those contracted anywhere except a hospital or long-term care facility.

Bloodborne Pathogens

Bloodborne pathogens (BPP) are micro-organisms (such as viruses) that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C (HCV), and human immunodeficiency virus (HIV).

BBP are not in every bodily fluid, but we must always assume they are in order to be safe.

How are Bloodborne Pathogens Spread?

Bodily fluids, especially those visibly contaminated with blood, have the potential to transmit disease.

- Cerebrospinal fluid (brain)
- Synovial fluid (joints)
- Pleural fluid (lungs)
- Amniotic fluid (uterus)
- Pericardial fluid (heart)
- Peritoneal fluid (abdomen)
- Semen
- Vaginal secretions
- Blood
- Any bodily fluid contaminated with blood
- Body fluids that cannot be recognised

Sexual contact is the primary mode of transmission for bloodborne pathogens; however, the risk of exposure does exist while providing medical or first aid care.

Other methods of transmission include:

- Contaminated sharp objects, which cut or puncture the skin. Examples include needle stick, illegal drug usage, cut from broken glass, bite
- Infected bodily fluid, which get into an open wound or mucus membrane (inside eyes, mouth, ears or nose)

Infection can even occur when contaminated objects touch inflamed skin, acne or skin abrasion.

How are Bloodborne Pathogens NOT Spread?

Intact skin is perfectly created to perform a first level of defence against disease and infection. Bloodborne pathogens cannot soak though intact skin.

Casual contact, such as handshaking, kissing, hugging, talking, sharing food, doorknobs, toilet seats, swimming pools, etc., also does not pose a risk.

HIV and AIDS

HIV attacks your body's ability to protect itself against disease and it causes AIDS.

Approximately 1.1 million people in the US are living with HIV/AIDS. Approximately 40,000 people become infected with HIV each year.

Symptoms may or may not be present. You may be infected for years and not know it. Only a blood test can determine the infection, not symptoms.

Symptoms include:

- Fever
- Fatigue
- Weight loss
- Rash

The HIV virus is fragile and only survives a few seconds outside the human body. The amount of HIV present in the bodily fluid and the conditions will determine how long the virus lives.

HIV is primarily spread by sexual contact with an infected person or by sharing needles and/or syringes (primarily for drug injection). Babies may become infected before/during birth or breast-feeding. Only a fraction of less than 1% of those infected contracted the virus from providing medical care.

HIV is not spread by casual contact like handshakes, sharing food, doorknobs, sneezing, toilet seats, swimming pools, etc. There is no vaccination currently against HIV.

UK HIV stats

- HIV is the fastest growing serious medical condition
- Around 97,400 cases have been reported since the early 1980s
- Over 18,000 people have died with AIDS since the early 1980s
- There were 7,734 new diagnoses in 2007
- In 2007, it was estimated that 28% of people living with HIV did not know they were infected
- 31% of people diagnosed with HIV in 2007 were diagnosed late
- 41% of new HIV diagnoses in 2007 were among men who have had sex with men

Europe HIV stats

- In 2007, there were approximately 730,000 people living with HIV in Europe. There were also 8,000 AIDS deaths and about 27,000 new infections
- 33% of the people newly diagnosed were between 15 and 29 years old
- 46% of the new cases were infected through heterosexual sex, 32% though sharing equipment for injecting drugs and 20% though gay sex
- 33% of the new diagnoses were women

Hepatitis B Virus

Hepatitis B virus (HBV) reproduces in the liver causing inflammation and possibly cirrhosis or liver cancer. HBV affects over 1.24 million people in the US. About 70,000 people become infected with HBV each year. About 5,000 people die as a result of liver disease caused by HBV. Infections have decreased since 1982 because of the HBV vaccine.

Symptoms may or may not be present. The older the person, the more likely it is that they will have symptoms. Only a blood test can determine the infection.

Symptoms may include:

- Yellow skin (jaundice)
- Yellowing eyes
- Tiredness
- Loss of appetite, nausea
- Dark urine
- Clay coloured bowl movements
- Joint pain
- Abdominal discomfort

Hepatitis B is up to 100 times easier to catch than HIV. HBV can live outside the body for at least seven days, and longer. 90% of adults who contract HBV clear the virus from their system within a few months and develop immunity. About 10% become chronic – the virus stays in the blood, infecting liver cells damaging them over time.

HBV is primarily spread by sexual contact with an infected person or by sharing needles and/or syringes (primarily for drug injection). Babies may become infected during birth.

However, like HIV, HBV is not spread by casual contact like handshakes, sharing food, doorknobs, sneezing, toilet seats, swimming pools, etc.

Occupationally exposed employees include those who:

- Administer first aid
- Provide medical aid to students
- Assist in bathroom care
- Work in medical or dental offices
- Perform custodial duties involving the cleaning and decontamination of surfaces that may be contaminated with blood and or other potentially infectious materials (OPIM)
- Handle regulated medical waste

HBV Vaccine

There is a vaccine available, given in 3 doses over a period of 6 months. It is a safe and effective. Booster doses of HBV vaccine are not recommended as immune memory remains indefinitely following immunisation. The HBV vaccine must be offered free to employees who face occupational exposure to bloodborne pathogens.

Hepatitis C Virus

Hepatitis C virus (HCV) reproduces in the liver causing inflammation and possible cirrhosis or liver cancer. The disease can incubate for decades.

There are 4.1 million carriers in the US and around 26,000 new cases each year. Deaths from chronic disease each year are between 8,000 and 10,000. About 80% of exposed people develop a chronic infection. 20% are able to clear the virus by naturally building immunity.

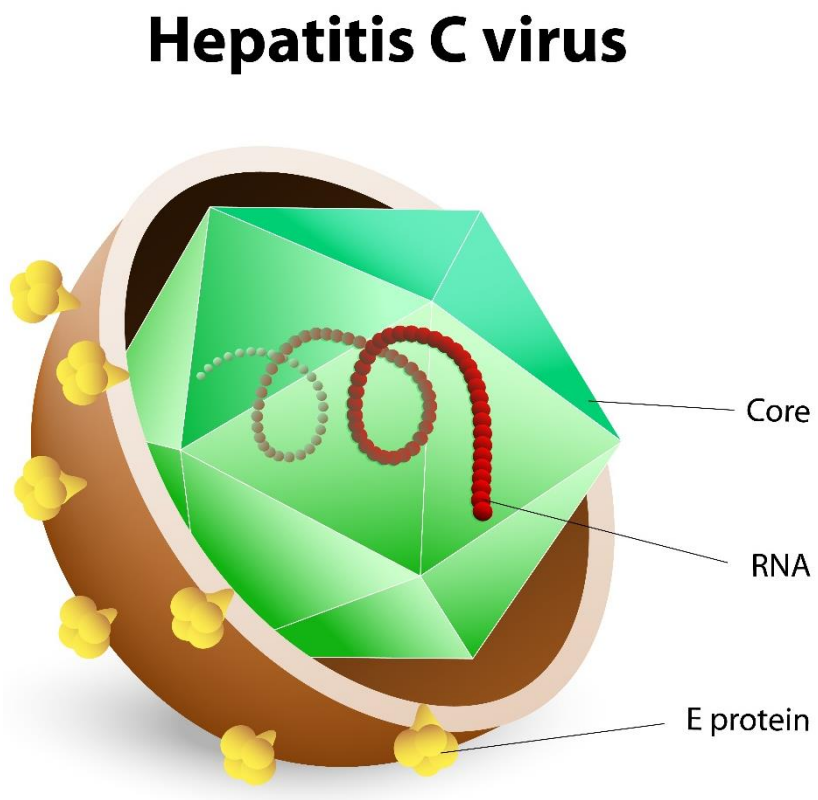
Symptoms are not a reliable way to detect HCV. A blood test is needed. Symptoms may look the same as HBV. Unlike HIV or HBV, HCB is spread primarily though parenteral contact:

- Illegal injection drug use
- Transfusion or transplant from infected donor
- Tattoos

Occupational exposure to blood is mostly through needle sticks. HCV is also spread though:

- Birth to HCV-infected mother
- Multiple sex partners

There is no cure or vaccination.



MRSA

MRSA stands for methicillin-resistant staphylococcus aureus, which is a common skin bacterium that is resistant to a range of antibiotics.

'Methicillin-resistant' means the bacteria are unaffected by methicillin, a type of antibiotic that used to be able to kill them. An MRSA infection means the bacteria have got into the body though a break in the skin and multiplied, causing symptoms.

Colonisation
About one in three of us carries the staphylococcus aureus (SA) bacteria in our nose or on the surface of our skin (especially in folds like the armpit or groin) without developing any infection. This is known as being colonised by the bacteria.

In hospitals, the proportion of people colonised by MRSA is higher because of more contact with infected cases.

People can carry MRSA for a few hours or days, or sometimes weeks or months. They are unaware they are carriers because the bacteria do not harm them or cause symptoms, unlike other people who are infected with MRSA.

How infection happens
If SA bacteria get into the body though a break in the skin, they can cause infections such as boils, an abscess or impetigo. If they get into the bloodstream, they can cause more serious infections, such as blood poisoning.

Who is most at risk?
MRSA will not normally infect a healthy person. Although it is possible for people outside hospital to become infected, MRSA infections are most common in people who are already in hospital. This is because:

- They often have an entry point for the bacteria to get into their body, such as a surgical wound or a catheter
- They tend to be older, sicker and weaker than the general population, which makes them more vulnerable to infection
- They are surrounded by a large number of other patients and staff, so the bacteria can spread easily (through direct contact with the other patients or staff or via contaminated surfaces)

Screening for MRSA

All NHS patients going into hospital for a relevant planned procedure are screened for MRSA beforehand. This helps the NHS reduce the chance of patients getting and MRSA infection or passing MRSA on to another patient.

Treatment

Scrupulous hand washing by hospital staff before and after contact with patients and before any procedure is the single most important infection control measure. Bacterial infections are treated with antibiotics. However, MRSA bacteria are resistant to methicillin (a type of penicillin antibiotic) and usually to some of the other antibiotics that are normally used to treat SA infections. Therefore, MRSA infections are more difficult to treat than other bacterial infections.

MRSA Prevention

In order to prevent healthcare-associated MRSA, hospital staff, patients and visitors should follow simple hygiene measures to help prevent the spread of MRSA and stop infection.

Hospital patients can reduce their risk of infection by always washing their hands after using the toilet or commode, always washing their hands or cleaning them with a hand wipe immediately before and after eating a meal, making sure their bed area is regularly cleaned and reporting any unclean toilet or bathroom facilities to staff.

Hospital visitors can reduce the chance of spreading MRSA to other people by not sitting on the patient's bed and by cleaning their hands before and after entering the ward. They should use hand wipes or hand gel before touching the person they are visiting. Hand gel or hand wipe dispensers are often placed by patients' beds and at the entrance to hospital wards and clinical areas.

Hospital staff should maintain very high standards of hygiene and take extra care when treating patients with MRSA. Staff should thoroughly wash and dry their hands before and after caring for a patient, before and after touching any potentially contaminated equipment or dressings, after bed making and before handling food. If hands are not visibly dirty, a fast-acting antiseptic solution such as a hand wipe or gel may be used, otherwise hands should be washed with soap and water.

Hospital staff should wear disposable gloves when they are coming into contact with an open wound, for example when changing dressings, handling needles or inserting an intravenous drip. Hands should be washed after gloves have been removed. The hospital environment, including floors, toilets and beds, should be kept as clean and dry as possible.

Patients with a known or suspected MRSA infection should be isolated and should only be transferred between wards when this is strictly necessary. All these steps aim to reduce the chance of patients infecting themselves and others.

There are ways to prevent community-associated MRSA, such as washing your hands regularly, having frequent showers or baths, which will help reduce the risk of catching or passing on MRSA outside hospital. Also keep your fingernails short and clean because bacteria can grow under longer nails.

Do not share any products that come into contact with your skin, such as soaps, lotions, creams and cosmetics. Do not share unwashed towels. Do not share any personal items that come into contact with the skin, such as razors, nail files, combs or hairbrushes, without thoroughly cleaning them first.

If the patient develops a skin or soft tissue MRSA infection, cover it with a dressing unless the doctor in charge of your care tells you not to. Wash your hands after touching affected areas of skin and potentially infected materials, such as used dressings.

Finally, with any procedure you must dispose of any potentially infected material promptly and safely in a suitable dustbin or similar container designed to dispose of hazardous material.

Clostridium Difficile

The symptoms of clostridium difficile range from mild to very severe diarrhoea, so care needs to be taken to avoid its spread to people.

A clostridium difficile infection (CDI) is a type of bacterial infection that can affect the digestive system. It most commonly affects people who are staying in hospital. The symptoms of a CDI can develop when you are taking, or have just finished taking, an antibiotic. Occasionally, symptoms may appear up to 10 weeks after you finish taking antibiotics.

The most common symptoms of a mild to moderate CDI are: regular bouts of usually foul-smelling, watery diarrhoea, which can sometimes be blood stained. Most people have around 3-5 bouts of diarrhoea a day; abdominal cramping; and pain.

In more severe cases of CDI, the colon can become inflamed, which is known as colitis. Symptoms of colitis include: more frequent bouts of diarrhoea, between 10-15 a day; a high temperature (fever) of 38°C or above; more severe abdominal cramping; dehydration; feeling sick; loss of appetite; and weight loss.

CDI can also cause life-threatening complications, such as severe swelling of the bowel due to a build-up of gas. This type of swelling is known as toxic megacolon.

It is worth noting that diarrhoea can be a common side effect of antibiotics, so having diarrhoea while taking antibiotics does not necessarily mean you have a CDI. If the diarrhoea persists after finishing a course of antibiotics you should consider a CDI.

Spores of the clostridium difficile bacteria can be passed out of the human body in faeces and can survive for many weeks, and sometimes months, on objects and surfaces.

If you touch a contaminated object or surface and then touch your nose or mouth, you can ingest the bacteria.

The clostridium difficile bacteria do not usually cause any problems in healthy people. However, some antibiotics can interfere with the balance of 'good' bacteria in the gut. When this happens, clostridium difficile bacteria can multiply and produce toxins, which cause symptoms such as diarrhoea.

A mild CDI can usually be controlled by withdrawing treatment with the antibiotics causing the infection.

More severe cases can be treated using different antibiotics. The condition usually responds well to treatment, with symptoms improving in 2-3 days and clearing up completely within 7-10 days. However, a return of symptoms is common, occurring in around 1 in 4 cases. A relapse will require further treatment. Some people have two or more relapses.

Life threatening cases may need surgery to remove a damaged section of the bowel, which is required in around 1 in 100 cases. Severe cases of CDI, especially when they occur in people who were already very ill, can be fatal.

Clostridium difficile bacteria spread very easily. Despite this, CDIs can usually be prevented by practising good hygiene in healthcare environments, such as washing hands regularly and cleaning surfaces using products containing bleach.

If you are visiting someone in hospital, you can reduce the risk of spreading infection by washing your hands before and after entering the ward. Alcohol hand gel is not effective against clostridium difficile spores, so the use of soap and water is essential.

As CDIs are usually caused by antibiotics, the majority of cases happen in a healthcare environment, such as a hospital or care home. Older people are most at risk from infection. People aged over 65 account for three quarters of all cases.

In recent years, the number of CDIs has fallen rapidly. There were 17,414 reported cases in England during 2011, compared to 52,988 in 2007.

Unfortunately, a new strain of the clostridium difficile bacteria, called NAP1/027, has emerged in recent years. This new strain tends to cause more severe infection. There has also been an increase of CDI cases occurring outside of a healthcare setting, known as community-acquired clostridium difficile infection.

Skin Diseases

People with infected wounds, open sores, boils, abrasions, or weeping dermatological lesions should avoid working where there is a likelihood, they could contaminate healthcare supplies, body art equipment or working surfaces.

A worker's skin should be free of rash or infection. Healthcare workers, tattoo artists and caregivers should cover any sores with bandages to avoid the potential spread of disease.

Skin is the largest organ of the body. Skin contains blood vessels, sensory receptors, nerves and sweat glands. It is made up of the epidermis and the dermis, and varies in thickness from 1.5mm to 4mm or more.

Our skin is our first line of defence against infection and there are three layers:

- The **epidermis** - is the thick outer layer of tissue
- The **dermis** - is the strong, flexible second layer of connective tissue. The dermis is filled with blood vessels. Unclean tattooing or body art is a high-risk activity for bloodborne pathogens because it involves multiple punctures of the skin to instil pigment into the dermis
- The **hypodermis** - is just below the skin. It is the fatty layer and is also called the subcutaneous layer

There are many commonly spread skin diseases:

- Bacterial problems like MRSA infection can look like an ordinary skin wound, boil, or infected sore
- Virus like herpes simplex. This is generally found on the face, scalp, arms, neck and upper chest. Small round blisters when broken can secrete a clear or yellowish fluid. People contract herpes by touching infected saliva, mucous membranes or skin
- Fungal infections like athlete's foot, jock itch and ringworm. These cause red, patchy, flaky, itchy areas. They are contagious and easily spread from one person to another. Fungal infections can be spread when an infected area on another person or contaminated surfaces are touched, such as in the shower or swimming pool. Affected areas need to be kept clean and dry

Some people with the following conditions are more prone to skin disorders. Healing may be adversely affected by receiving tattoos or body art:

- History of Hepatitis B or Hepatitis C
- HIV/AIDS
- Diabetes
- History of haemophilia or any other blood disorder/disease
- History of skin diseases or skin lesions
- History of allergies or adverse reactions to pigments, dyes, latex, etc.
- Immune disorders

Standard Precautions

Treat all body fluids from every person as potentially infectious. Follow the recommendations in the employer's bloodborne pathogens exposure control plan.

An employer's bloodborne pathogens exposure control plan should include:

- Various levels of risks of employees that may have occupational exposure to
- Training requirements
- Work practice controls
- Engineering controls
- Procedure for an exposure incident

Personal Protective Equipment (PPE)

PPE is provided by your employer.

- Gloves, CPR shields, masks, gowns, eye protection
- Know where PPE is located at your workplace
- Know what PPE is available and how to use it
- Make sure first aid kits and emergency supplies include disposable gloves and CPR face shields or rescue masks

How to Reduce your Risks

Do not eat, drink, smoke, apply cosmetics or handle contact lenses in areas where there is the possibility of exposure to BBP.

When changing the liners in a waste container, do not use your hands to flatten the waste in the bag.

Lift and carry the waste bag away from your body.

Follow your facility's procedures for handling laundry.

General laundry procedures:

- Wear PPE
- Keep contaminated laundry separate from other laundry
- Bag potentially contaminated laundry where it is used
- Use leak-proof bags for wet laundry
- Transport in properly labelled bags

Workplace practices require appropriate, commercially available and effective safe medical devices designed to eliminate or minimise occupational exposure.

Needles and other sharps must be discarded in rigid leak-proof, puncture resistant containers.

Do not bend, shear, break or recap needles. If you must recap, use the one-handed method.

Liquid or semi-liquid blood or other potentially infectious materials (CPIM)
Contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed - dispose of in a labelled bio-hazard container, either a red bag or container labelled in an orange or orange-red with the Bio-Hazard symbol.

Properly labelled and bundled waste needs to be handled according to your facility's disposal procedures.

Clean Up Procedures

Where there has been a fluid spill, it needs to be cleaned up by a trained person with the correct equipment and chemicals. The spill needs to be contained in the area so that it does not spread to other areas. This may include sealing off the area from other people.

You will need to look for the guidance given by your employer or do appropriate risk assessments to decide on possible action ensuring you are following the laws and acts laid down.

Any blood spill can be cleaned by the use of paper towels, but you must always make sure you are wearing the correct personal protective equipment.

The PPE could include:

- Gloves
- Apron
- Eye shields
- Face shields
- Footwear
- Special bodily fluid clean-up kits
- Sharps box and infectious material bags
- Other equipment supplied by the employer

There may be some policies in place that require specially trained people to clean up any potentially dangerous spills.

You need to be sure you fully understand your work place protocols before carrying out any clean up.

You can also use special cleaning wipes and cleansing substances.

The use of hand gel to ensure your hands are clean is advised.

Gloves

- Grip one glove near the cuff and peel it down until it comes off inside out
- Cup it in the palm of your gloved hand
- Place two fingers of your bare hand inside the cuff of the remaining glove
- Peel the glove down so that it comes off inside out, over the first glove
- Properly dispose of the gloves

Hand Washing

Wash hands well:

- Wet your hands and apply liquid, bar or powder soap
- Rub hands together vigorously to make a lather and scrub all surfaces
- Continue for 20-30 seconds as it takes that long for the soap and scrubbing to dislodge and remove stubborn germs. Need a timer? Imagine singing 'Happy Birthday' all the way though twice

Hand Gels

- There are waterless, alcohol-based hand wash solutions that are as effective as soap and water hand washing. These preparations should only be used when there is no visible soiling of the hands.
- If there is visible soiling, then soap and water hand washing should be used.
- These waterless preparations contain an emollient and aid in reducing damage to the hands

Hand Cleaning Policies

There are standard policies on hand hygiene, cleaning provision and signs to ensure that every effort is taken to ensure cleanliness at all times.

Some examples of these policies are:

- Nails must be short, clean and free of nail varnish, and false nails should be removed
- Separate clinical wash-hand basins for hand washing are provided in each surgery and decontamination room
- Basins do not have plugs or overflows, as these are areas where bacteria can collect
- Basins are fitted with either sensor-operated or lever-operated mixer taps, which do not discharge directly into the drain opening to avoid generating an aerosol of water vapour
- Wall mounted liquid hand-wash dispensers with disposable soap cartridges are located near to the sinks. The nozzles should be kept clean. Refillable hand-wash containers are not used at the practice as bacteria can multiply within the container and act as a potential source of contamination. Bar soap should not be used
- Posters depicting appropriate hand washing techniques are displayed above or near the clinical wash-hand basins in the practice. An example is available in our student download area
- Hands should be dried carefully, using the disposable towels provided, to avoid damaging the skin. Dispose of towels in the foot-operated or sensor-operated waste bin
- At the end of a session, use the hand cream provided to counteract dryness. Hand cream should not be used under gloves as it encourages the growth of micro-organisms
- Alcohol-based skin-disinfectant hand-rubs/gels can be used on visibly clean hands in conjunction with a good hand-rub technique. A poster depicting an appropriate hand rub technique should be displayed in each surgery and decontamination room
- Follow the manufacturer's instructions for the maximum number of applications for hand-rubs/gels before hand washing is required. Repeated applications leads to a build-up of the product on the hands; if hands become sticky, wash as normal using a proper hand-hygiene technique
- Alcohol-impregnated wipes used for cleaning surfaces should not be used in place of hand-rubs/gels; they are not effective in hand decontamination
- By keeping your hands clean and reducing the risk of damaging your skin, you will reduce the risk of infection or cross contamination

Laundry and Cleaning

Each care establishment should have written protocols for routine general cleaning together with a written cleaning schedule that ensures all of the areas of the home are cleaned to a satisfactory standard.

Staff undertaking cleaning within the care establishment should have clear protocols to follow and access to adequate resources. Dishwashers are most effective because the water is very hot and removes the need to hand dry.

Laundry

- All cuts, sores or abrasions must be covered with a waterproof dressing
- Wear disposable gloves and apron; PPE (this will help protect you from infection)
- If laundry is blood-stained, it must be washed separately, preferably in a water-soluble bag
- Laundry should be processed on a cycle that reaches 71°C for at least three minutes or 65°C for at least 10 minutes. Work clothes need to be washed at the hottest temperature possible
- For clothing that cannot withstand such high temperatures, dry cleaning is an alternative option
- After handling laundry, discard protective clothing and wash hands thoroughly

Laundry facilities

What is needed? A designated laundry area, ideally sited, so that the soiled articles are not carried though areas where food is stored, prepared, cooked or eaten.

The laundry floor must be of a smooth impermeable and easily cleaned material. The walls must be in a sound condition and easily cleaned, and colour coded if possible.

A commercial/industrial washing machine with both a sluice and hot water cycle professionally installed and serviced. A service agreement, which supports prompt repair or replacement of the machine, is advisable.

- A designated area for soiled laundry, separate from where clean laundry is handled and stored
- Hand washing facilities for staff
- Supply of protective clothing for staff use
- Washing powders and other substances must be kept in a locked storage cupboard. Material safety, data sheets for hazardous substances must be maintained and be available for reference
- Domestic staff should have a programme for cleaning the laundry environment

Laundry practices

- Staff should always wear gloves and a disposable apron whilst handling laundry
- Linen should be removed from beds with care to avoid creating dust, and placed in and appropriate container at the bedside
- Soiled linen must be removed to the designated laundry for processing as soon as possible
- Laundry contaminated with blood or body fluids should be contained in a water-soluble or soluble, stitched bag prior to being placed in a normal liner bag - this allows contaminated laundry to be placed straight into the washing machine on a sluice cycle; therefore, reducing the risk of contamination. After removal of protective clothing, staff should wash and dry hands thoroughly

Used linen

- All linen used, except foul/infected linen, should be placed in a WHITE bag
- Foul/infected linen should be placed in a water-soluble bag immediately after removal, then placed in a RED bag
- Heat liable fabrics should be washed at the highest temperature possible, according to fabric care instructions

Laundering of linen and clothing

- ***Used linen*** - temperature maintained at 65°C for no less than 10 minutes or 71°C for no less than 3 minutes
- ***Foul/infected*** - a sluice cycle is necessary for foul linen. Linen should be transferred in its water-soluble bag into the washer without watering

Disposal of Clinical Waste

Clinical waste generated every day in care homes can present risks to the health and safety of residents, staff and visitors in the care home, as well as to the general public if it is not properly segregated, handled, transported and disposed of in accordance with the following relevant legislation:

- Health and Safety at Work Act 1974
- Management of Health and Safety at Work Regulations 1992 (The Management Regulations)
- Control of Substances Hazardous to Health Regulations 1999 (COSHH)
- Controlled Waste Regulations 1992
- Environmental Protection Act 1990
- Environmental Protection (Duty of Care) Regulations 1991
- Waste Management Licencing Regulations 1994
- Special Waste Regulations 1996
- Hazardous Waste (England and Wales) Regulations 2005
- The list of Waste Regulations 2005

There have been significant legislative changes in recent years, which have implications on the way that clinical waste is defined and how it should be disposed of. Care home cleaning policies should include areas to be cleaned, PPE equipment, person responsible for cleaning materials to be used for cleaning (chemicals) and methods.

Guidance on local policy should be sought from the Environmental Health Officer (EHO) with responsibility for waste management.

Under health and safety law, care homes or employers generating clinical waste must ensure that the risks from it are properly controlled. Remember, you have a legal duty of care to:

- Assess the risk
- Develop policies
- Put arrangements in place to manage the risks
- Monitor the way these arrangements work

If you do not comply, you may be prosecuted.

Care Home Cleaning

- To ensure the highest standards of cleanliness to meet infection control standards throughout the care home
- To adhere to the cleaning schedule, ensuring the correct and safe use of equipment and chemicals
- To carry out systematic cleaning as required with the use of machinery
- To practice safe handling of chemicals, always following the manufacturer's instructions and ensuring regulations are adhered to
- To maintain and requisition cleaning materials in order to deliver cleaning services
- To use all mechanical equipment in a correct and safe manner. To report any defective equipment to the manager and to take it out of service immediately, ensuring that it is clearly labelled as "OUT OF ORDER"
- To display "WET FLOOR" warning cones, when necessary and remove once the floor is dry
- To always follow the care home policy on colour coding for equipment and rubbish bags
- To assist in the cleaning of clinical and domestic waste and dirty laundry from areas

General responsibilities

- To adhere to the operational policy regarding the wearing of jewellery, and to always wear the uniform and other protective clothing provided
- To, at all times, maintain high standards of personal hygiene and always project a positive image of both yourself and the care home
- To attend training courses appropriate to the post
- To ensure security of the premises is maintained at all times, combination codes or keys must not be given to non-trust employees
- To understand that staff may be requested to work in any appropriate area within the department
- To maintain the confidentiality of service users, staff and visitors
- To act, at all times, in a professional and responsible manner and have due regard to confidentiality and infection control legislation

This is an outline job description and should be regarded as an inflexible specification. Responsibilities will be reviewed periodically in line with service priorities and duties may change or new duties be introduced.

Colour Coding in Hospitals

Colour coding of hospital cleaning materials and equipment ensures that these items are not used in multiple areas, therefore reducing the risk of cross infection. The National Patient Safety Agency (NPSA) has developed a National Colour Coding Scheme for cleaning materials.

The recommendation is that all NHS organisations adopt this code as standard in order to improve the safety of hospital cleaning, ensure consistency and providing clarity for staff, as there is currently no single colour code in use across the NHS. The National Colour Coding Scheme is designed to standardise, and in some cases streamline, existing schemes. It will have minimal resource implications for the service.

All cleaning materials and equipment, for example, cloths, re-usable and disposable, mops, buckets, aprons and gloves, should be colour coded. The method used to colour code items should be clear, permanent and in accordance with existing local practice.

Cleaning products such as bleach and disinfectants do not need to be colour coded. Also, the code does not extend to catering equipment, for example, chopping boards and knives, where there is already a well-recognised and well-established procedure to ensure food hygiene and food separation issues are addressed.

The NPSA recommends that all NHS organisations providing inpatient services in England and Wales should make a policy decision to adopt the National Colour Coding Scheme where existing practice differs. They recommend all NHS trusts develop an action plan for introducing the National Colour Coding Scheme and raise awareness of any revised practice amongst healthcare staff. By having a standard colour coding system across the NHS, it will be easier for people to understand the one colour code system when they move from different locations.

The colour coding is:

- Red is used in bathrooms, washrooms, showers, toilets, basins and bathroom floors
- Blue is used in general areas, including wards, departments, offices and basins in public areas
- Green is used in catering departments, ward kitchen areas and patient food service at ward areas
- Yellow is used in isolation areas

A copy of the NHS poster is available in your student download area.

Body Handling and Disposal

Whenever there is an exposure risk of contact with blood and body fluids in handling bodies for any purpose, you should always wear personal protective equipment, and other protective equipment that is available as necessary.

Sites in the body that pose a risk for leaking bodily fluids should be sealed as soon as possible, for example, open wounds and drainage tube sites should be covered with waterproof dressings.

If you are aware or suspect that the deceased person is infected with a bloodborne pathogen, it is your duty to ensure that those who need to handle the body are made aware that there is a potential risk of infection. For example, funeral personnel, mortuary and post-mortem room staff should be informed. This is a statuary requirement under the HSWA.

The diagnosis should be kept confidential, but discreet use of 'danger of infection' or similar labelling should be used. You should also include on the label a note of which type of precautions are required.

A body that is externally contaminated with blood, or is suspected to be infected with a bloodborne pathogen, should be placed in a disposable plastic body bag as soon as possible. You should use absorbent material if there is a leakage of bodily fluids.

If you work in a mortuary, you should communicate properly with your co-workers and other staff who submit bodies for post-mortem examination or storage, and who collect bodies for disposal purposes.

If you undertake post-mortem examinations, you should follow similar personal protection as those recommended by your employer and the latest guidelines.

Exposure Incident

An exposure incident is defined as a specific mucus membrane, broken skin or puncture wound with blood or OPIM that result from the performance of an employee's duties.
When this happens, the relevant forms need to be completed as soon as possible after the incident, but do not delay medical treatment.

Under the requirements of RIDDOR, the employer has the legal duties to report certain incidents and dangerous occurrences to the relevant authority. If an employee has been injured or put at risk from a bloodborne pathogen, it should be reported. More information on reporting RIDDOR can be found on the www.hse.gov.uk/riddor.

If you are contaminated with blood or other bodily fluids, you will need to take the following action:

Wash off with running water and use an antibacterial soap

If the skin is damaged, encourage it to bleed and then rinse the wound under running water. Do not suck the wound

Wash off splashed fluid from face, eyes and mouth with water, but do not swallow the water

Make a note of the source of the contamination

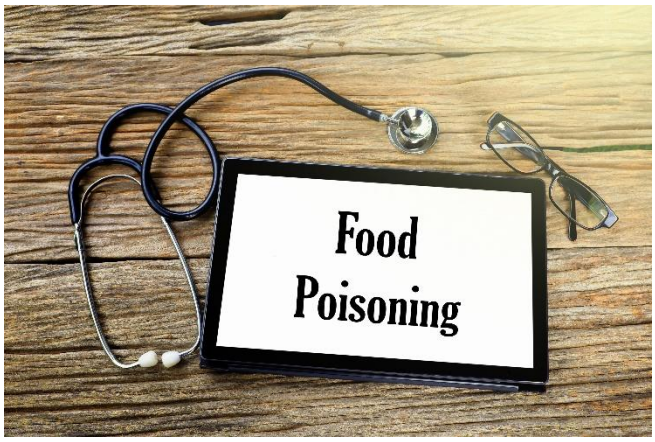
Report the incident to your supervisor or other responsible person in the company

Prompt medical attention is vital. Follow your local protocols or go to your doctor or local A&E hospital.

Food Poisoning

Food poisoning is common and usually mild, but sometimes it can be fatal, especially is the elderly or sick. Symptoms include, but are not limited to, stomach cramping/pain, vomiting/nausea and diarrhoea, which can occur either quickly or after many hours from the initial consumption. It can just affect one person or a group if they have all been infected.

The main symptoms may pass without treatment in a few hours, but medical advice may be needed. Dehydration is a major problem, so increasing fluids is important.



Contamination can come in three main ways: bacterial – micro-organisms, bacterial, germs; physical – objects in food; and chemical – cleaning substances in the food.

If you are preparing or serving food, you must be fully aware of the workplace practices and take the correct training.

Some basic points with food are:

- Always ensure that your hands are thoroughly clean. Use the designated hand-washing basin. Ensure your clothes and hair do not dangle in the food or catch fire
- Always ensure that surfaces and equipment that you are going to use are clean, and you have at hand detergents to remove food particles plus disinfectant to remove germs (bacteria)
- Always use separate surfaces and utensils for raw and cooked foods. Clean utensils as you go if possible
- Do not touch the waste bin, your face or hair, or sneeze or cough when preparing food. If you do, wash your hands again. Do not blow onto food, as germs will cross-contaminate from your mouth
- Cook food thoroughly. As a minimum, a core temperature of 70°C for 2 minutes
- Cover food when being stored. It prevents cross-contamination from raw to cooked food
- Cool food as quickly as possible, 90 minutes max before putting in the fridge
- The danger zone for repopulation of germs is 5°C to 63°C. One germ can become one hundred million in less than 10 hours
- If food is to be reheated, ensure it is reheated to 82°C
- Cover cuts, scratches and spots with a blue waterproof plaster, and remove jewellery
- Do not taste food with fingers or dirty utensils. Use a separate spoon for each tasting
- Chill food below 5°C. Freeze food below minus 18°C
- Clean up as you go along and leave everything clean and tidy when you have finished

Employer and Employee Responsibilities

The Employer

Under the Health and Safety at Work 1974 and the Management of Health and Safety at Work Regulations 1999, the employer has the legal duty to protect staff and anyone else who may be affected by the actions of the company or any of its sites. There must be a policy and consultation with training to reduce the risk and to control the possible infection of anyone. The employer must make sure that all staff are familiar with all policies.

The Employee

The employee has a legal duty to take care of their own health and the health of the others affected by their actions. They should also cooperate with the employer so they can comply with the legal duties placed on them by these acts.

People with BBV should be able to work normally unless they become ill and then they are treated the same as any other person sick in the workplace.

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

Sometimes referred to as RIDDOR95 or RIDDOR for short, these regulations came into force on 1st April 1996.

Reportable illnesses and disease include:

- Outbreak of diarrhoea
- Scabies
- Impetigo
- Measles and sickness
- Certain poisoning
- Some skin diseases, such as occupational dermatitis, skin cancer, chrome ulcer, oil folliculitis/acne
- Lung diseases, including occupational asthma, farmers lung, pneumoconiosis, asbestosis, mesothelioma
- Infections, such as leptospirosis, anthrax, legionellosis and tetanus
- Other conditions, such as occupational cancer, certain musculoskeletal disorders, decompression illness and hand-arm vibration syndrome

COSHH Regulations

These regulations apply to all work with substances hazardous to health (including micro-organisms). The substances hazardous to health which a general practitioner and his staff might encounter include not only the chemical agents present in the workplace, but also disease organisms brought in by patients to which staff might be exposed.

COSHH information should be available where chemicals are stored.

The regulations provide a comprehensive policy for the employer to 'manage risks'. The object is to prevent exposure to hazardous substances if reasonably practicable. If not, such exposure should be controlled adequately. Methods of control will vary, but the use of personal protective equipment such as gloves, gowns and aprons should be regarded as a last resort.

The main features are:

- Identify substances hazardous to health In workplace
- Formally assess (in writing) the risk to employees from these materials
- Control adequately and monitor the risk
- Provide health surveillance where appropriate
- Provide adequate instruction and training

Dental Infection Control Policy

Infection control procedures can only be implemented safely and realistically with the full compliance of everyone in the dental practice.

Every dental practice is required to have a documented infection control policy, which should be routinely discussed and updated. It is the responsibility of the individual practitioner to ensure that all dental staff understand and practice the procedures.

The policies should clearly outline every aspect of infection control, which should be readily available to all members of staff to allow them to refer to it to ensure that they are competent and confident in its implementation.

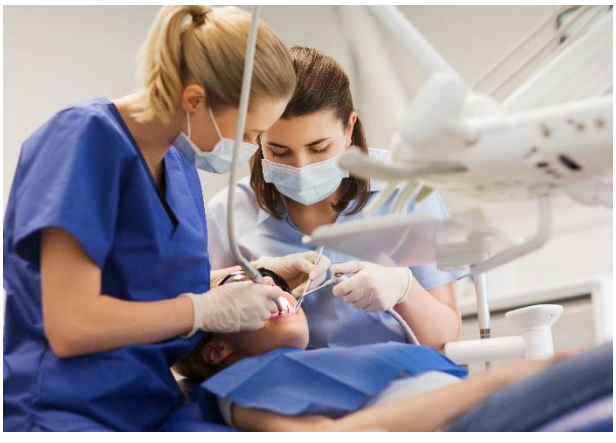
Implementing safe and realistic infection control procedures requires the full compliance of the whole dental team. These procedures should be regularly monitored during clinical sessions and discussed at practice meetings. The individual practitioner must ensure that all members of the dental team understand and practice these procedures routinely.

It may be appropriate to display an infection control statement in your practice to help reassure patients and gain their confidence. It is important to take time to answer their questions. Ensure all the members of your practice staff can answer patient queries competently or know who to refer the patient to when necessary.

Having a readily available policy, which describes the procedure for the practice, is good practice. It is also a good idea to make sure that each member of staff is given a copy of the policy and they should sign a declaration confirming that they have received a copy and that training has been provided and that they have read and understood the practice infection control policy.

Duty of care

All dentists have a duty of care to their patients and staff to ensure adequate infection control procedures are followed. It is important that all staff understand the principles of personal protection and that compliance is part of their contracts of employment.



Failure to employ adequate methods of cross-infection control would almost certainly render a dentist liable to a charge of serious professional misconduct.

Clean Technique Tattoo

Individuals undergoing body piercing, tattooing, branding or scarification are at risk from bloodborne pathogens.

Tattoo artists and body piercers must follow health and safety practices and clean technique to protect themselves and their clients from bloodborne pathogens.

Clean technique for tattoo and body artists is used to prevent or reduce the transmission of micro-organisms from one person to another, or from one place to another. You need to protect all items from contamination and ensure that sterile items remain sterile by maintaining the cleanliness of all supplies and storing them in a sanitary manner.

Use barriers, like clean, disposable, single-use gloves and adopt proper hand hygiene at all times before, during and after all procedures.

Thoroughly clean and prepare the skin area with antibacterial solution in accordance with the manufacturer's recommendation with any equipment used.

All materials applied to skin must be from single-use articles or transferred from bulk containers to single use containers. Dispose of single-use containers after each person.

Use disposable, single-use needles and supplies whenever possible and follow safe injection practices.

Maintain a clean and sanitary environment by using detergent to remove soil and a disinfectant agent to clean up a spill of blood or other potentially infectious materials.

Reusable tools and equipment must be cleaned and sterilised correctly. Sterilisation machines, such as autoclaves, must be regularly tested and serviced in accordance with manufacturer's recommendations and service records kept.

Disinfect chairs and work surfaces between each person, using the appropriate wipes or cleaners.

Needles, scalpels, razors or other sharps that have contacted skin or body fluids should be separated from other waste and placed in puncture resistant, closed containers (sharps containers) immediately after use.

Sharps disposal containers must be kept in a safe place that is easy to reach, clearly marked, and changed when they become full and disposed of correctly.

Glossary of Terms

- Blood means human blood, human blood components and products made from human blood
- Bloodborne pathogens means pathogenic micro-organisms that are present in human blood and can cause disease in humans
- Contaminated means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item surface
- Contaminated laundry means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps
- Contaminated sharps means any contaminated object that can penetrate the skin, including, but not limited to, needles, scalpels, broken glass
- Decontamination means the use of physical or chemical means to remove, inactivate or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use or disposal
- Engineering controls means controls (e.g. sharps, disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineering sharps injury protections and needless systems) that isolate or remove the bloodborne pathogens hazard from the workplace
- Exposure incident means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that result from the performance of an employee's duties
- Hand washing facilities means a facility providing an adequate supply of running potable water, soap and single-use towels or hot air drying machines
- HBV means hepatitis B virus
- HIV means human immunodeficiency virus
- Occupational exposure means reasonably anticipated skin, eye, mucous membrane or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties
- Other potentially infectious materials means the following human body fluids: semen, vaginal secretion, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dentist procedures, any body fluid that is visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids
- Parenteral means piercing mucous membranes or the skin barrier though such events as needle sticks, human bites, cuts and abrasions
- Sterilise means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores
- Universal precaution is an approach to infection control. According to the concept of universal precautions all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV and other bloodborne pathogens
- Work practice controls means controls that reduce the likelihood of exposure by altering the manner in which the task is performed

Summary

If you completed our online course, you will be able to download and print your completion certificate online as soon as you have passed the test. If you completed a classroom course, you will receive a ProTrainings wall certificate and wallet card like the below image in the post after the course. You can download and print both versions of your Certified CPD certificate from your free ProTrainings login area.

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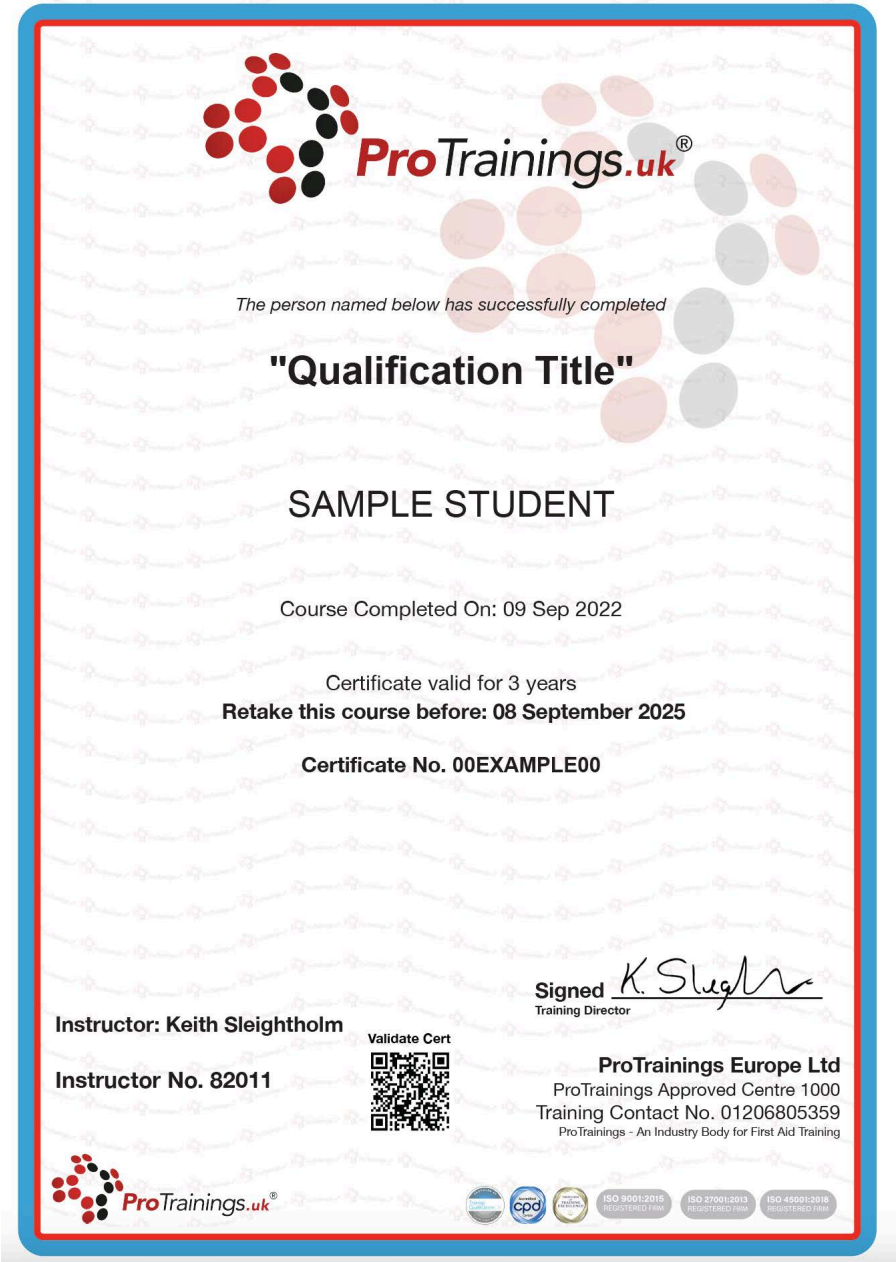

Useful Websites

ProTrainings Europe Limited

www.ProTrainings.uk

The Resuscitation Council (UK)

www.resus.org.uk

Health and Safety Executive

www.hse.gov.uk

Skills for Health

www.skillsforhealth.org.uk

Office of Qualifications and Examinations Regulation

www.ofqual.gov.uk

Ofsted

www.gov.uk/ofsted

Skills for Care

www.skillsforcare.org.uk

FOFATO

www.fofato.co.uk

NASDU

www.nasdu.co.uk

TQUK

www.tquk.org

CQC

www.cqc.org.uk

citizenAID

www.citizenaid.org

ProTrainings Europe Limited

22 Westside Centre, London Road, Stanway, Colchester, Essex CO3 8PH

Telephone: 01206 805359 / Email: support@protrainings.uk

Web: www.protrainings.uk