INFECTION PREVENTION AND CONTROL PROCEDURE

Version 7

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Contents

1. Introduction

Infection prevention and control (IPC) practices are essential to ensure that people who use services receive safe and effective care. Effective prevention and control of infection must be part of everyday practice and be applied consistently by everyone. Good management and organisational processes are crucial to make sure that high standards of infection prevention (including cleanliness) are developed and maintained. The Code of Practice on the prevention and control of infections, under The Health and Social Care Act 2008, sets out the required standards applicable to registered providers of all healthcare and adult social care in England. IPC assurance is included in the Clinical Governance Framework in St John Ambulance.

All St John Ambulance people play an important role in ensuring practices are followed, and safety is maintained, increasing the confidence the public has in the organisation, and reducing infection-related risks.

There are number of practices which should be used all the time which will maintain high standards and reduce risks of infection. This procedure outlines these and the principles of application.

2. Hierarchy of controls

St John is responsible for assessing, managing and monitoring risk in the context of managing infectious agents based on the measures that are prioritised in the hierarchy of controls. However, it is also very important that all St John clinical operational personnel undertake continuous dynamic risk assessment whilst on duty and providing care; this means involves observing, assessing, and analysing IPC issues as they arise, and making quick decisions on the spot to deal with new hazards and changing situations.

These are:

1. Elimination of the hazard by physically removing it e.g. early assessment/screening patients for signs and symptoms of infection
2. Replace the hazard by substitution, this is sometimes impossible in the healthcare environment
3. Engineering controls by controlling the hazard, mitigating the hazard or isolating St John people form the hazard e.g. ensuring good ventilation of care environments, using screens/curtains/partitions between patient beds/stretchers/seats, adequate space to allow for physical distancing of at least 1m and wherever possible 2m in care environments
4. Mitigate the hazard by changing the way St John people work e.g. early assessment/screening patients for signs and symptoms of infection, regular check that physical distancing is being maintained during every event, ensuring all St John people are effectively trained in IPC and that that training is regularly refreshed within the annual Essential Education training which is mandatory for all clinical operational St John people , provision of adequate hand hygiene facilities and welfare facilities, regular and effective cleaning regimes are followed with compliance being monitored routinely
5. Ensuring provision and effective use of PPE e.g. adequate supply of all required PPE including face masks, aprons, gloves etc., all St John operational people are appropriately trained in PPE use including fit testing for FFP3 masks.

3. Quick Procedure Guides

These quick guides have been designed to be used locally to assist in embedding the principles of this procedure.

Quick procedure guide1: Infectious Diseases table

Quick procedure guide 2; Standard Precautions for Infection Prevention and Control

Quick procedure guide 3; Hand Hygiene

Quick procedure guide 4; Action in Case of an exposure to body fluids/needle stick injury

Quick procedure guide 5; Cleaning and disinfection

Quick procedure guide 6; Chain of Infection

4. Antimicrobial Prescribing

St John Ambulance Medical and Clinical activity does not involve many services where antimicrobials would be routinely used, there are some specialist services such as the homeless service where antimicrobials are used. If prescribing and use of antimicrobials were to take place the prescriber would be responsible for ensuring that they follow the antimicrobial prescribing policy for the particular CCG/NHS Trust where the patient is being treated. St John Ambulance runs annual promotional events around antimicrobial resistance and publishes information on Connect:

https://stjohn.sharepoint.com/sites/c-clinical/SitePages/Antimicrobial-resistance.aspx

5. Occupational Health and IPC Training

St John Ambulance has an Occupational Health Policy and Procedure which is under the remit of Human Resources (HR) (https://stjohn.sharepoint.com/sites/c-policies-forms/sitepages/occupational-health-policy.aspx?web=1). The procedure includes the process for pre-employment health declarations, supplementary health declarations and screening.

Immunisation of St John personnel is based on the Immunisation against infectious disease green book and risk assessment of role and potential exposure to infectious patients or materials.

St John Ambulance provides training and competency assessment on IPC for people working in the various clinical services across the charity. The training is delivered in various formats - online, formal face to face and run at local level on informal awareness basis. The formal online and face to face training is developed and managed by the National Volunteer Training team with input from the National Medical and Clinical Team.

6. Standard Precautions for Infection Prevention and Control

Standard infection control precautions (SICPs) are to be used by everyone, in all care settings, at all times, for all patients whether infection is known to be present or not, to ensure the safety of personnel and patients.

SICPs are the infection prevention and control measures necessary to reduce the risk of transmitting infection from both recognised and unrecognised sources. Potential sources of infection include blood and other body fluids, secretions or excretions, non-intact skin or mucous membranes and any equipment or items in the care environment that could have become contaminated.

Hand Hygiene

Hand hygiene is an important practice in reducing the transmission of infection and should always be performed when removing PPE.

When in a clinical role, all personnel must be bare below the elbow:

- Sleeves rolled up or sleeve protectors in place
- All hand and wrist jewellery removed (a single, plain smooth metal finger ring or kara bangle is permitted)
- Fingernails clean and short, and do not wear artificial nails or nail products
- All cuts or abrasions covered with a waterproof dressing.

Hand Hygiene Opportunities (based on WHO 5 Moments for Hand Hygiene):

1. Before touching a patient
2. Before clean or aseptic procedures
3. After body fluid exposure risk
4. After touching a patient
5. After touching a patient's immediate surroundings.

There are two recommended methods for this; Hand Washing or using an Alcohol Based Hand Rub (ABHR).

Soap and water must be used if:

- Hands are visibly soiled
- Caring for a patient with diarrhoea or vomiting
- Working in an area where there is an outbreak of diarrhoea and vomiting, including Clostridium Difficile or Norovirus

or

- if hands have been in contact with body fluids.

If hand washing facilities are unavailable at an event or in the area care is provided and hand washing is indicated, an individual hand hygiene wipe (such as Clinell antibacterial hand wipes) should be used to clean your hands prior to using an ABHR.

Hand Hygiene Technique

The recommended technique for hand hygiene is shown below:

WHO IPC Training tools

https://www.nhs.uk/live-well/healthy-body/best-way-to-wash-your-hands/

How to Handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

Duration of the entire procedure: 20-30 seconds

May 2009

How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

Duration of the entire procedure: 40-60 seconds

Skin care

- Dry hands thoroughly after hand washing, using disposable paper towels.
- Use an emollient hand cream during work and when off duty.
- Do not use or provide communal tubs of hand cream in the care setting.
- Staff with skin problems should seek advice from Occupational Health which is accessible via HR.

Respiratory Hygiene

Respiratory and cough hygiene is designed to minimise the risk of cross-transmission of respiratory illness (pathogens):

- Cover the nose and mouth with a disposable tissue when sneezing, coughing, wiping and blowing the nose
- Dispose of all used tissues promptly into a waste bin
- Wash hands with non-antimicrobial liquid soap and warm water after coughing, sneezing, using tissues, or after contact with respiratory secretions or objects/surfaces contaminated by these secretions
- Where there is no running water available or hand hygiene facilities are lacking, staff may use hand wipes followed by Alcohol Based Hand Rub (ABHR) and should wash their hands at the first available opportunity
- Keep contaminated hands away from the eyes nose and mouth.

Staff should promote respiratory and cough hygiene, helping those (e.g. elderly, children) who need assistance with this e.g. providing patients with tissues, plastic bags for used tissues and hand hygiene facilities as necessary.

Standard Level 1 Personal Protective Equipment (PPE)

Before undertaking any procedure, personnel should assess any likely exposure to blood and/or other body fluids, non-intact skin or mucous membranes and wear Personal Protective Equipment (PPE) that protects adequately against the risks associated with the procedure.

Dynamic assessments should consider where the care is to be provided and the appropriate PPE worn. E.g. when care is to be provided outside whilst on a foot patrol, when working as a Cycle Responder or Community First Responder and as part of the Medical Response Team at an event, it may not be appropriate to wear an apron or a gown due to weather conditions.

All PPE should be:

- Located close to the point of use; this may mean carrying appropriate PPE (type and amount) in equipment bags
- Stored to prevent contamination in a clean, dry place until required for use (expiry dates must be kept to)
- Single-use only items unless specified by the manufacturer
- Changed immediately after each patient and/or after completing a procedure or task
- Disposed of after use into the correct waste stream, i.e. healthcare waste or domestic waste.

Reusable PPE items – e.g. non-disposable goggles, face shields, visors – must be decontaminated after each use by using a Green Universal Clinell wipe.

Gloves must be:

- Worn when exposure to blood and/or other body fluids, non-intact skin or mucous membranes is anticipated or likely
- Changed immediately after each patient and/or after completing a procedure or task
- Changed if a perforation or puncture is suspected
- Appropriate for use, fit for purpose and well-fitting.
- Double gloving is recommended during some exposure prone procedures, e.g. when attending major trauma incidents.
- Gloves should not be washed with either soap and water, or hand rub between clinical tasks involving a patient or if undertaking other tasks (e.g. cleaning) as this may cause damage to fabric of glove materials.

Aprons must be:

- Worn to protect uniform or clothes when contamination is anticipated or likely, e.g. when in direct care contact with a patient
- Changed between patients and/or after completing a procedure or task.

Full body gowns and fluid-repellent coveralls must be:

- Worn when there is a risk of extensive splashing of blood and/or other body fluids, e.g. in the A&E dept for a trauma case
- Worn when a disposable apron provides inadequate cover for the procedure or task being performed
- Changed between patients and immediately after completing a procedure or task.

Eye and face protection (including full-face visors) must:

- Be worn if blood and/or body fluid contamination to the eyes or face is anticipated or likely e.g. in the A&E dept for a trauma
- Not be impeded by accessories such as piercings or false eyelashes
- Not be touched when being worn.

Fluid-resistant surgical face masks must be:

- Worn with eye protection if splashing or spraying of blood, body fluids, secretions or excretions onto the respiratory mucosa (nose and mouth) is anticipated or likely
- Well-fitting and fit for purpose, fully covering the mouth and nose (manufacturers' instructions must be followed to ensure effective fit and protection)
- Removed or changed: – at the end of a patient care episode – if the mask's integrity is breached, e.g. from moisture build-up after extended use or from gross contamination with blood or body fluids – in accordance with manufacturers' specific instructions.

Footwear must be:

- Visibly clean, non-slip and well-maintained, and support and cover the entire foot to avoid contamination with blood or other body fluids or potential injury from sharps.

Sleeve protectors

Forearms must be washed thoroughly between every patient contact. However, this may not be possible when wearing long sleeves. Cross-contamination may occur when volunteers and employees are wearing long-sleeved clothing, for example, high visibility jackets or fleeces, during lifting, or treating numerous patients. This risk shall be minimised by wearing sleeve protectors from wrist to elbow. Sleeve protectors are single patient use items.

Personal Hygiene and Care of Uniform

Volunteers and employees shall ensure that they are healthy and fit for their duties in St John Ambulance.

Volunteers and employees shall, if wearing St John Ambulance Service Delivery Uniform, follow the St John Ambulance Standards of Dress Procedure Adult Volunteers available here https://stjohn.sharepoint.com/sites/c-policies-forms/sitepages/standards-of-dress-policy.aspx?web=1

Volunteers and employees must not continue working in a uniform that has become contaminated. The individual volunteer or employee shall keep their uniform, including high visibility jackets, in a good state of repair and at a high standard of cleanliness.

The need to replace contaminated uniform during service provision shall be considered when planning service provision of any kind, therefore providing volunteers and employees with a safe working environment. The responsibility for laundering personal uniform rests with the individual. If uniform has become contaminated with body fluids, it shall be laundered separately from the volunteer or employee's domestic wash. Uniforms shall be laundered at the hottest possible wash (ideally 60° if the clothing will withstand that heat).

Donning and Doffing Standard Level 1 PPE

When putting on PPE it is essential that is put on (donned) and removed (doffed) correctly to ensure the wearer is protected and to reduce the risk of self-contamination when removing PPE.

When removing standard PPE it is the most contaminated item that is removed first to reduce the risk of self-contamination – the gloves!

https://www.gov.uk/government/publications/covid-19-personal-protective-equipment-use-for-non-aerosol-generating-procedures

Public Health England

Guide to donning and doffing standard Personal Protective Equipment (PPE)

for health and social care settings

Donning or putting on PPE

Before putting on the PPE, perform hand hygiene. Use alcohol handrub or gel or soap and water. Make sure you are hydrated and are not wearing any jewellery, bracelets, watches or stoned rings.

1. Put on your plastic apron, making sure it is tied securely at the back.

2. Put on your surgical face mask, if tied, make sure securely tied at crown and nape of neck. Once it covers the nose, make sure it is extended to cover your mouth and chin.

3. Put on your eye protection if there is a risk of splashing.

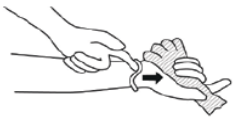
4. Put on non-sterile nitrile gloves.

5. You are now ready to enter the patient area.

Doffing or taking off PPE

Surgical masks are single session use, gloves and apron should be changed between patients.

1. Remove gloves, grasp the outside of the cuff of the glove and peel off, holding the glove in the gloved hand, insert the finger underneath and peel off second glove.



2. Perform hand hygiene using alcohol hand gel or rub, or soap and water.

3. Snap or unfasten apron ties the neck and allow to fall forward.

Snap waste ties and fold apron in on itself, not handling the outside as it is contaminated, and put into clinical waste.

4. Once outside the patient room. Remove eye protection.

5. Perform hand hygiene using alcohol hand gel or rub, or soap and water.

6. Remove surgical mask.

7. Now wash your hands with soap and water.

Reducing Risk of Exposure to Blood Borne Viruses (BBV)

St John has a duty of care to protect its volunteers, employees and patients against the risk of exposure to Hepatitis B (HBV), Hepatitis C (HCV) and other BBV infections as far as is reasonably practicable. Compliance with the standard precautions for infection prevention and control, including the use of PPE will, for the majority of activities undertaken, provide an adequate level of protection.

The immunisation risk assessment and requirements for BBV is contained in the Occupational Health procedure and is managed by Human Resources.

Exposure Prone Procedures (EPP)

The majority of St John people will not perform or be involved in EPP. An EPP is a procedure where the gloved hands and sharp instruments, needle tips or sharp tissues (spicules of bone or teeth) are inside a body cavity, wound or confined anatomical space where the hands or fingertips may always not be completely visible . Should there be a need for a St John person to be involved in EPP, a risk assessment will have been completed as part of the Occupational Health and HR process with the appropriate immunisation and blood tests documented.

Resuscitation

The Resuscitation Council (UK) recommends the use of a pocket mask when delivering cardio-pulmonary resuscitation. Single use pocket masks are recommended.

Reducing the risk of sharps injuries

It is the responsibility of the user of the sharps to dispose of it**.** The sharp should be disposed of at the point of use into a yellow lidded sharps container.

Before use:

- Ensure that all sharps provided for use are safer sharps and these are used where available and appropriate
- Ensure the sharps box is available close to the point of care, is correctly assembled and complies with BS73720.
- Sharps boxes shall be labelled with the date of first use to facilitate disposal after 3 months as per NICE Guidelines https://www.nice.org.uk/guidance/cg139/chapter/1-Guidance#standard-principles

During use:

- Take the box to the point of sharps use to enable immediate disposal of sharps.
- Wear appropriate PPE
- Do not re-sheath needles
- Use the temporary closure (without clicking into place and locking) between uses.

After use:

- Be careful during emergency situations
- Never overfill sharps boxes
- Never pass sharps to another person. It must be disposed by the person using it at the point of use
- Sharps boxes shall be disposed of as clinical waste. However, do not place sharps boxes into clinical waste bags.

Waste Management

The safe management of waste generated by clinical operations is important for infection control and patient wellbeing and is the responsibility of all St John clinical personnel providing care to patients.

Once clinical waste bags are sealed and sharps bins are locked ready for disposal, there is a separate procedure for the management of the clinical waste which is the responsibility of the National Health, Safety & Environment team.

Clinical waste

Clinical waste includes gloves, aprons, dressings, swabs, sanitary items, incontinence pads, vomit bowls, colostomy and urine bags, and soiled nappies that are contaminated with body fluids.

- All non-sharp clinical waste shall be put into plastic orange clinical waste bags
- In clinical areas the waste should be a foot operated bin. In vehicles a small wall mounted waste receptacle with flip lid is acceptable. In clinical areas at events, which may be a temporary structure, if a foot operated waste bin is not available a waste bag may be used directly
- Bags shall be secured when two thirds full using a plastic tie or secure knot
- All sealed bags shall be labelled with the source of the waste
- Bags should not be left outside or on the floor in any storage area, and shall be placed in the large, locked yellow bins whenever possible.

Sharp clinical waste

Sharp clinical waste includes needles, syringes, cannula, drug ampoules, disposable razors, small broken glass items, and any other used disposable sharp items. The user of such medical devices is responsible for the correct disposal of the sharp.

Any item for disposal shall be placed in the appropriately coloured plastic sharps box, which within St John will be a yellow body and lid for all sharps contaminated; this includes those contaminated with medicinal products as we do not use cytotoxic medicines.

Sharps containers:

- Must be located in a safe position that avoids spillage, is at a height that allows the safe disposal of sharps, is away from public access areas and is out of the reach of children
- Must not be used for any other purpose than the disposal of sharps
- Must not be filled above the fill line
- Must be disposed of when the fill line is reached

- Should be temporarily closed when not in use
- Should be disposed of every 3 months even if not full.

Linen Management

Although the risks of cross infection from linen are low, particular attention shall be given to those items used in direct patient care.

The approved options for the provision of linen are:

- Ensure that only disposable items are used; this is the preferred option
- Arrange an agreement with a contract specific local NHS provider for a linen exchange to take place when service users are taken to their facilities, such as the Accident and Emergency department. There must be a written agreement in place with the relevant NHS trust for this to happen and may be part of a negotiated contract with an NHS Ambulance Trust
- Arrange a local contract with a professional healthcare laundry service that has the appropriate standards.

Used linen

This is linen that has been soiled by general use but not contaminated by blood or body fluids. This linen shall be disposed of as domestic waste.

Contaminated linen

Linen contaminated by blood or body fluids, or which has been used in the care of a patient with a known infectious disease or infestation, shall be disposed of as clinical waste

Pillows

All pillows shall be purchased with plastic covers or shall have a plastic cover applied so that they may be wiped clean after each patient use.

Curtains

Curtains used in treatment/first aid units must be disposable. These should be removed and disposed of as above for used/contaminated linen following of each event cover. In clinical areas where curtains are left in situ they must be dated and labelled and changed when soiled/contaminated or 6-monthly as a minimum. Non-clinical admin areas should have curtain changing as part of the overall cleaning schedule and plan which will be managed by the Facilities team.

Environment cleaning and disinfection

The cleanliness of any healthcare environment is important for infection prevention and control and patient wellbeing. It is the responsibility of the volunteer or employee in charge of the environment to maintain a safe clean environment in which to provide treatment for patients and for those who work in it. It is also their responsibility to ensure that when they have finished using the area, that it is cleaned and left in an appropriate condition for its next users.

Section 13 of this procedure gives information on the **vehicle cleaning schedule** and levels of cleaning.

Cleaning equipment

To reduce the risk of cross contamination, mops and disposable cloths shall not be used or transferred between different areas. Cleaning equipment shall be stored clean and dry between uses. Do not store brushes or mops in disinfectant solution or water.

All cleaning equipment shall be marked in a uniform manner in line with the national colour coding, so that appropriate cleaning equipment is used as necessary. Disposable mop heads shall be used and discarded daily, or after a single use if they become contaminated body fluid waste in the clinical waste bin. After use, all buckets shall be emptied, rinsed, and stored inverted.

Equipment and furniture cleaning

- Remove any coverings from the item to be cleaned. Trolley cots and other restrained equipment should be moved as necessary to allow full access
- Starting at the top and moving down, use a water and detergent solution or hard surface detergent wipes to wipe clean all surfaces. This shall include the edges and undersides of surfaces
- Replace and, where necessary, secure all equipment ready for use.

Communications equipment (including radio handsets, pens, clipboards etc.)

Such equipment should be wiped down at the end of every event or if they become contaminated with approved decontamination wipes e.g. Clinell wipes (do not use any type of spray on radio handsets as this may interfere with electronics).

Dealing with body fluid spillage / contamination

- Put on single use gloves and a disposable apron
- Prepare a clinical waste bag and place it next to the spill ready for use
- Display appropriate warning signs
- Use a dedicated body fluid spillage pack and follow the manufacturer guidance

- The Clinell body fluid spill wipe pack is recommended and can be used on all body fluids safely. The instructions for use are on the back of the pack or available from the company website
- If a hypochlorite granule/tablet spill pack is used, follow the manufacturer instructions on the pack. Please note these products must not be directly applied to urine or vomit. For these spillages, clean the spill up first and then use the disinfectant, ensuring good ventilation of the area
- Dispose of all waste as clinical waste
- Remove and dispose of PPE as clinical waste and perform hand hygiene.

7. Exposure to Blood and Body Fluids Procedure

Under the principles of standard precautions, all blood and other body fluids from patients are considered as being potentially infectious. Therefore, any exposure to body fluids should be treated as an exposure incident.

An exposure incident involves:

- Inoculation of blood by a needle or other sharp
- Contamination of broken skin with blood or body fluids directly, or via clothing or linen soaked in blood or body fluids
- Blood or body fluids splashing on a mucous membrane, for example eyes or mouth
- Oral contact with a person's blood, vomit or mucous
- Human bites where the skin has been broken.

The management involves:

- Encouraging bleeding under running water
- Splashes to the eyes - irrigate with water or saline solution and remove contact lenses if worn
- Splashes to the mouth - rinse with copious amounts of water
- Refer the exposed person to the nearest Accident and Emergency department with the type of injury and donor BBV status/risk factors if known. If this urgent preliminary risk assessment considers there is a significant risk of BBV, the requirement of Post Exposure Prophylaxis (PEP) for HIV and Hepatitis B needs to be assessed as soon as possible.
- Complete an IRF and appropriate follow up will be provided to the volunteer or employee to offer support and information if required. This may be undertaken by the Regional HR Manager or their nominated Occupational Health Adviser.

8. Aseptic Technique and Invasive Devices

Asepsis is a process that aims to prevent or reduce micro-organisms from entering a vulnerable body site such as a wound, or during the insertion of invasive devices such as intra-vascular devices. 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 and should form part of the training for all procedures requiring asepsis. The ability to control conditions can be a challenge in the out-of-hospital setting however the principles 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

- Perform hand hygiene prior to and during the procedure as required, gloves are not always required and prior to their use a risk assessment should be conducted to decide if gloves are needed
- Use sterile equipment for contact with the vulnerable site.

Invasive devices are common in health care and when used appropriately provide valuable assistance to providing patient care and improving outcomes. However, the use of invasive devices is not without risk and the development of infection occurs by their very nature as they bypass the body's natural defence mechanisms such as skin and mucous membranes. Common invasive devices (for example, urinary catheters, IV cannula) are frequently responsible for healthcare acquired infections (HCAIs) such as urinary tract, insertion site infections or bloodstream infections.

The use of such devices should be carefully considered and if required an aseptic technique followed when inserting and managing the device. JRCALC and the St John Clinical Procedure manual gives specific guidance for invasive procedures/device insertion.

9. Transmission Based Precautions (TBP) and Care of the Infected Patient

SICPs may be insufficient to prevent cross transmission of specific infectious agents. Therefore, additional precautions TBPs are required to be used when caring for patients with a known or suspected infection or colonisation. Transmission based precautions are based on the chain of infection (Please see Quick procedure 6; Chain of infection)

Clinical judgement and decisions should be made by personnel on the necessary precautions. This must be based on the:

- Suspected or known infectious agent
- Severity of the illness caused
- Transmission route of the infectious agent
- Care setting and procedures undertaken.

TBPs are categorised by the route of transmission of infectious agents (some infectious agents can be transmitted by more than one route).

Application of TBPs may differ depending on the setting and the known or suspected infectious agent: in St John, we use Level 1 and Level 3 PPE as set out below.

Level 1 PPE: Contact precautions

Used to prevent and control infections that spread via direct contact with the patient or indirectly from the patient's immediate care environment (including care equipment). This is the most common route of cross-infection transmission.

- Disposable apron/consider fluid-resistant disposable gown if apron provides inadequate cover for the procedure/task being performed
- Disposable gloves
- Consider (if risk of spraying or splashing): Eye & face protection (fluid-resistant Type IIR surgical face mask and goggles or full-face visor)

Level 2 PPE: Droplet Respiratory precautions

Used to prevent and control infections spread over short distances (at least 6 feet or 2 metre) via droplets (greater than 5µm) from the respiratory tract of one individual directly onto a mucosal surface or conjunctivae of another individual. Droplets penetrate the respiratory system to above the alveolar level.

- Disposable apron; consider fluid-resistant disposable gown if apron provides inadequate cover for the procedure/task being performed
- Disposable gloves
- Fluid-resistant Type IIR surgical face mask and goggles or fluid-resistant Type IIR surgical face mask and full-face visor

Level 3 Respiratory Protective Equipment (RPE): Airborne Respiratory precautions

Used to prevent and control infections spread without necessarily having close patient contact via aerosols (less than or equal to 5µm) from the respiratory tract of one individual directly onto a mucosal surface or conjunctivae of another individual. Aerosols penetrate the respiratory system to the alveolar level.

Level 3 RPE includes:

- Disposable apron; consider fluid-resistant disposable gown if apron provides inadequate cover for the procedure/task being performed
- Disposable gloves
- Filtering face piece 3 (FFP3) respirator and eye protection

Aerosol Generating procedures (AGPs)

The list of procedures that are now defined as AGPs in the National infection prevention and control manual for England has recently changed in the current document here https://www.england.nhs.uk/publication/national-infection-prevention-and-control/

We strongly recommend that St John people who are undertaking intubation should wear Level 3 RPE in line with guidance from the Royal College of Anaesthetists (7 June 2022) Introduction of a national infection prevention and control (IPC) manual for England: implications for anaesthetists and intensivists | The Royal College of Anaesthetists (rcoa.ac.uk).

Doffing of PPE for Aerosol Generating Procedures

Please see here https://www.gov.uk/government/publications/covid-19-personal-protective-equipment-use-for-aerosol-generating-procedures

FFP3

All tight fitting FFP3 respirators must be:

- single-use (disposable) and fluid-resistant
- fit tested on all healthcare staff who may be required to wear a respirator to ensure an adequate seal/fit according to the manufacturers' guidance
- fit checked (according to the manufacturers' guidance) every time a respirator is donned to ensure an adequate seal has been achieved
- compatible with other facial protection used i.e. protective eyewear so that this does not interfere with the seal of the respiratory protection. Regular corrective spectacles are not considered adequate eye protection.

For any facial hair, the hair must not cross or interfere with the respirator sealing surface. If the respirator has an exhalation valve, hair within the sealed mask area should not impinge upon or contact the valve. You must pass a face fit test for any tight-fitting respiratory protective equipment that you need to use for work activities.

Fit Testing

Fit testing should be carried out by a properly trained competent fit tester. The aim of the test is to ensure the style and shape of mask fits the face shape of the user.

The performance of tight-fitting facepieces depends on achieving a good contact between the wearer's skin and the face seal of the facepiece. Each model of FFP3 mask is slightly different in its fit to each individual face. The person being fit tested needs to clean shaven or have an approved style of facial hair that will not affect the fit of the mask. (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1021293/20200520_COVID-19_Infection_prevention_control_FFP3_and_facial_hair.pdf

A fit test is performed using a hood and taste solution usually although there are other approved methods available. The only way to ensure that it will protect you is to repeat the fit test again with each model of mask provided.

Infection Prevention and Control during care of the deceased

The principles of SICPs and TBPs continue to apply whilst deceased individuals remain in the care environment. This is due to the ongoing risk of infectious transmission via contact although the risk is usually lower than for living patients.

Washing and/or dressing of the deceased should be avoided if the deceased is known or suspected to have an invasive streptococcal infection, viral haemorrhagic fevers or other Group 4 infectious agents. See Mandatory - Application of transmission based precautions to key infections in the deceased.

10. Medical/Clinical Event Cover

The principles of IPC remain the same wherever practice takes place. The challenge at events is often due the nature of the facility, location and availability of equipment and structures.

During event planning, the event organisers risk assessment of their event should be considered carefully to ensure the St John provision mitigates as much risk as is reasonably practicable.

IPC facilities/equipment to be considered at an event	
Item	**Matters to consider**
Facilities to promote and maintain hand hygiene practices	• Adequate supplies of running water/ mobile sink units • Readily available liquid soap, paper towels, hand rub/gel, hand wipes
PPE	• Disposable non-sterile gloves • Disposable aprons • Sleeve protectors • Goggles/visors • Fluid resistant face masks • FFP3 masks id appropriate
Body fluid precautions	• Risk assessment – to include potential or actual risks • Appropriate forms of PPE for type of event

	• Body fluid spillage kits • Sharps containers
Linen	• Disposable linen requirements
Environmental cleaning	• Facilities for standard cleaning of ambulances and treatment centres • Sufficient resources – cleaning materials etc • Sufficient logistics – vehicles, to replace any stood down for cleaning purposes • Consideration given requirements of events taking place in rural areas such fields and grass areas
Waste management	• Who is taking responsibility for provision of waste management resources and waste collection – is it arranged by the event organiser or St John? • Sufficient supplies of waste bags • Management and storage of clinical waste at event
Additional consideration	• Isolation requirements in events covering more than 1 day – e.g. for patients with diarrhoea and vomiting • Availability of IPC consumables such as vomit bowls, pads • Toilet facilities for both patients and St John operational people.

Guidance for St John People at Events

Event planners will be expected to discuss what is expected of members of the general public at events that St John people attend to provide care, e.g. no restrictions at all, face masks when inside buildings/crowded spaces.

As we learn to live safely with coronavirus (COVID-19), there are actions we can all take to help reduce the risk of catching COVID-19 and passing it on to others. These actions will also help to reduce the spread of other respiratory infections, such as flu, which can spread easily and may cause serious illness in some people.

People can be infected with a respiratory virus such as COVID-19 and not have any symptoms but still pass infection onto others.

The risk of catching or passing on COVID-19 is greatest when someone who is infected is physically close to or sharing an enclosed and/or poorly ventilated space with other people and they breathe, speak, cough or sneeze as they release small particles that contain the virus which causes the infection. These particles can be breathed in or can come into contact with the eyes, nose, or mouth. The particles can also land on surfaces and be passed from person to person via touch.

There are simple things you can do in your daily life that will help reduce the spread of COVID-19 and other respiratory infections and protect those at highest risk.

Things St John people can choose to do are:

- Get vaccinated.
- Let fresh air in if meeting others indoors, open doors and windows to provide through flow of fresh air.

Operational St John people should always practise good hygiene:

- Wash your hands
- Cover your coughs and sneezes
- Clean your surroundings frequently
- Wear a face covering or mask.

We recommend that operational St John people;

- Follow the vaccination regime advised by the NHS to protect themselves against infections such as COVID-19; there is an additional requirement for some clinically operational roles to have Hepatitis B immunisations
- Maintain 1m social distancing whenever practicable; this should be increased to 2m wherever feasible especially indoors and when suspected respiratory infectious patients are cared for
- Support patient self-care whenever reasonably practicable e.g cleaning of minor wounds, application of adhesive plasters
- There is no longer a requirement to wear a FRSM when in an ambulance cab with a closed vehicle bulkhead, however St John people may continue to do so and ensure that the cab is well ventilated. Where the vehicle has an open bulkhead, FRSMs must be worn
- Always wear Level 1 PPE for every patient/casualty episode; if undertaking AGP(intubation), wear Level 3 PPE as per this procedure
- Follow the St John Standard Infection Control Precautions at all times.

The following people should wear a FRSM AS DESCRIBED ABOVE;

- All patients and their carers or escorts that St John treats and transports unless:

- medically exempt
- it cannot be tolerated
- they are being cared for outside

- All St John operational people whilst in the clinical setting.

Patient Assessment for Infection Risk

The patient assessment should influence decisions in accordance with clinical/care need(s), precautions required and communication to others involved in patient management; such assessments should take place as soon as a patient approaches the care setting e.g. first aid post, treatment centre or mobile treatment unit

Patients who may present a cross-infection risk in any setting includes those:

- With respiratory symptoms, fever, diarrhoea, vomiting or an unexplained rash
- Known to have been previously positive with a Multi-drug Resistant Organism (MDRO) e.g. MRSA, Carbapenemase Producing Enterobacteriaceae (CPE)
- who have been an inpatient in any hospital in the UK or abroad or are a known epidemiological link to a carrier of CPE.

Any such patient should be isolated from other patients as far as reasonably practicable for treatment, in a separate pod/cubicle if available; patients with suspected or confirmed respiratory infection should be provided with a FRSM to be worn in multi-bedded areas and communal areas if it can be tolerated.

Once the patient has been transferred or discharged, ensure the area is thoroughly cleaned as per this procedure.

11. Infection Outbreak /Incident

A healthcare infection incident or outbreak can be defined as one of the below. If there is a concern about a potential infection outbreak or incident the person in charge of the event or control room

should be informed with the relevant information. The Regional on-call person will be informed and depending upon the circumstance may need to contact the local Health Protection team for advice:

https://www.gov.uk/health-protection-team

The Regional Clinical Team and National Medical and Clinical team will be informed, and an Incident Report Form(IRF) completed.

An exceptional infection episode
A single case of any serious illness which has major implications for others (patients, staff and/or visitors), the organisation or wider public health e.g. infectious diseases of high consequence such as Viral Haemorrhagic Fever
A healthcare associated infection outbreak
Two or more linked cases with the same infectious agent associated with the same healthcare setting over a specified time period. or A higher than expected number of cases of HCAI in a given healthcare area over a specified time period.
A healthcare infection exposure incident
Exposure of patients, staff, public to a possible infectious agent as a result of a healthcare system failure or a near miss e.g. ventilation, water or decontamination incidents.

12. Built Environment

Requirements in St John buildings

The majority of St John buildings are for non-clinical use and the Facilities team will manage the requirements and ensure the ease of cleaning the environment is considered. Buildings and environments intended for clinical use such as ambulance stations should adhere to the appropriate Health Building Notes and Health Technical Memoranda. The initial plan and design of these must involve the National Medical and Clinical team/IPC.

https://www.gov.uk/government/collections/health-building-notes-core-elements

https://www.gov.uk/government/collections/health-technical-memorandum-disinfection-and-sterilization

Cleaning the built environment

The cleanliness of any environment is important for infection prevention and control and the wellbeing of its users. The Facilities team are responsible for overseeing the cleaning requirements and specification of buildings. This will be done in conjunction with the National Medical and Clinical team where the building is used for clinical activity.

Cleaning contracts in St John buildings

Most St John buildings will have a contracted cleaning service in place especially where there is heavy daily usage; this contractor shall have a cleaning schedule in place to show what is to be cleaned, how it is to be cleaned and how often as well as how cleaning resources shall be re-ordered. Areas for special attention include toilets, shower facilities and kitchen areas. The maintenance and cleanliness of the external areas of St John buildings is important and these should be kept clear of a build-up of rubbish/litter.

13. Vehicle Cleaning Schedules

It is important that vehicles used as a treatment area for patients or to transfer a patient to another healthcare provider are kept in a clean and safe state to reduce the risk of infection transfer.

If for any reason an end of shift or event appropriate vehicle clean cannot be completed, it is essential that the crew ensure that the vehicle custodian is made aware that the vehicle is unavailable for use until that clean has been completed. This will prevent another crew collecting a 'dirty' vehicle for the next shift or event which is unacceptable.

The different levels of clean and responsibility are listed below:

Level 1 - After each patient contact – performed by crew
• Personnel to wear gloves and aprons when cleaning
• All surfaces in contact with the patient shall be cleaned with a Clinell Green Universal wipe and allowed to air dry
• All disposable items shall be disposed of appropriately, including disposable linen items.
Level 2 - After every shift schedule or after contamination - performed by crew
• Routinely, when a vehicle is returned to base at the end of any event or shift, the inside of the vehicle floor shall be mopped
• The crew shall ensure that all waste containers are emptied and cleaned, and that the vehicle is suitable for its next duty
• Items used in direct contact with a patient or a crew member shall be cleaned using Clinell Green Universal wipe and allowed to air dry. If the patient had C.difficile the Clinell Red Sporicidal wipe should be used.
• If the saloon is contaminated with body fluid, then the vehicle shall be mopped and cleaned using chlorine-based disinfectants at 1,000ppm av.chlorine or a Clinell Red Sporicidal Wipe used to decontaminate surfaces
• The surfaces, door handles, steering wheel inside of the cab will be wiped down with a Clinell Green Universal wipe
• All disposable items shall be disposed of appropriately, including disposable linen items.

• Gloves and aprons to be worn when performing an end of shift or contamination clean removed on completion and hands washed.
Level 3 – Scheduled Weekly clean - performed by crew
• The inside of the vehicle shall be cleaned and tidied. This means all walls and ceilings shall be wiped down with Clinell Green Universal wipes
• Cupboards, drawers and trauma walls shall be checked, cleaned wherever necessary, and re-stocked
• The cab area shall be checked and tidied
• Floors and lifts shall be cleaned and mopped using a detergent based cleaning product, and all chairs/seats cleaned
• All patient equipment shall be thoroughly cleaned. A full inspection of the vehicle and all its equipment shall be carried out during the standard cleaning process
• Gloves and aprons to be worn when performing an end of shift clean, removed on completion and hands washed.
Level 4 – Scheduled Deep clean – performed by Innov8 contractor
• This process should be completed every 12 weeks. The deep clean process is managed and reviewed jointly by National Purchasing, Fleet, and Clinical teams.
• A deep clean is the process of removing all items, including equipment, from their storage areas and methodically cleaning the vehicle, both internally and externally:
• During this process the internal floors, cupboards, ceilings, and appropriate equipment will be decontaminated by the Contractor as per Standing Operating Procedure which has been agreed by the Medical and Clinical Directorate.
• Equipment stowage bags shall be checked for integrity and operational usage
• All hard items, such as defibrillators and suction units, shall be checked for operational usage
• All disposable equipment shall be checked for expiry dates and damage
• once a deep clean has been done, the vehicle will re-enter operations fully stocked, cleaned, and without deficiencies from the required standard.
Level 5 – Unscheduled Terminal Deep Clean – may be performed by Innov8 contractor or St John personnel if necessary

It may occasionally be necessary for an unscheduled thorough clean and disinfection of the vehicle to take place. The vehicle or area should be well ventilated for at least an hour prior to this deep clean being completed by St John people.

This will be required:

- Whenever there has been a significant spillages of body fluids such as blood, vomit and faeces
- It may also be required following contact with a patient with an infection and after AGP(intubation) performed, following contact with a potentially highly infectious patients and those infected with drug resistant microorganisms where there is body fluid spillage
- The crews are responsible for reducing the bioburden as much as possible before requesting an Unscheduled Terminal Deep Clean and the vehicle being taken off the road (VOR)
- The same procedure as for a level 4 clean is used.

Please see Quick procedure 1; Transmission Based Precautions Infectious Disease/Condition Table which gives guidance on the level of cleaning required following patients with infection.

Area /Item	Frequency	Method	Standard	Responsibility
Equipment- Patient				
These include the following but this not an exhaustive list; • Stretcher • Moving and Handling kit • Tympanic thermometer • Carry Chair • Spacer • Pulse Oximeter • Rescue Board • Scoop Stretcher • Stethoscope • Vacuum Mattress • Vehicle patient seats • Collars • Extrication device • Frac pack/straps • Rescue board head block • BP machine and cuffs • Rescue boards straps • Defibrillator • Glucometer • Pen torch • Suction Unit-Electronic	After every patient use	Clean and disinfect all areas with a Clinell multi-surface wipe. Equipment must be disposed of as contaminated waste if Velcro becomes contaminated with body fluids	All parts (paying particular attention to Velcro areas) should be visibly clean with no blood or body substance, dust, dirt, debris or spillages.	Crew on Duty

• Suction Unit- Manual				
Equipment-Non-patient				
These include the following but this not an exhaustive list; • Airwaves accessories • Equipment Bags • Mobile phone & data terminal	End of shift or after each use	Clean and disinfect all areas with a Clinell multi-surface wipe.	All parts should be visibly clean with no blood or body substance, dust, dirt, debris or spillages.	Crew on Duty
Vehicle Interior				
Internal surfaces of patient compartment - grab rails, communications equipment, work surfaces	End of shift or if contaminated	Clean and disinfect all areas with a Clinell multi-surface wipe. Equipment must be disposed of as contaminated waste if Velcro becomes contaminated with body fluids	All surfaces should be visibly clean and free from body fluids, dust, dirt or adhesive tape.	Crew on Duty
Ambulance Floor	End of shift or if contaminated	Remove the stretcher and mopped (disposable mop head) with approved St John chemical solution.	The complete floor including all skirting and edges are visibly clean and free from dust, dirt and spillages	Crew on Duty
Steering Wheel	End of shift or if contaminated	Clean and disinfect all areas with a Clinell multi-surface wipe.	Steering wheel should be visibly clean and free from body fluids, dust, and dirt.	Crew on Duty
Walls, ceiling, cupboards, blinds, brackets, fire extinguisher	Weekly	Clean and disinfect all areas with a Clinell multi-surface wipe.	All surfaces should be visibly clean and free from body fluids, dust, dirt or adhesive tape.	Crew on Duty

14. Medical Devices and Decontamination

Definition of a medical device

A medical device is any equipment, training device or software that comes into contact with, or is involved in patient care, or is used to simulate clinical procedures/interventions or training.

Definition of a single-use and single patient use device

A single use medical device is a device designed or marketed to be used once only, such as a wound dressing, wound glue, a pre-loaded IV flush syringe or a hypodermic needle. A single patient device can be used more than once on the same patient, such as oxygen or nebuliser mask.

Definition of decontamination

Decontamination is a combination of processes that removes or destroys contamination so that infectious agents or other contaminants cannot reach a susceptible site in sufficient quantities to initiate infection, or other harmful response.

Decontamination of medical devices

Wherever possible, single use disposable items or disposable components shall be used, particularly where decontamination cannot be done effectively. St John Ambulance does not have facilities to sterilise any equipment, therefore all sterile equipment must be single use. If the equipment is re-usable, it must be decontaminated between patient use.

Equipment must be decontaminated using the manufacturer guidance: this can often be found in the user manuals which are available online if not with the kit. If this is not available, the National Equipment Manager can be contacted to provide the information.

For most non-invasive equipment cleaning with a detergent or a Clinell Universal wipe is sufficient:

- Put on single use gloves and a disposable apron
- Prepare a clinical waste bag and place it next to the contaminated device ready for use
- Wipe excess contaminant with clean paper towel if heavily contaminated and dispose of immediately into the clinical waste bag
- Use a combined detergent and disinfectant wipe e.g. Clinell Universal wipe to decontaminate all surfaces
- Allow the area to air dry which allows the disinfectant the correct contact time
- Dispose of the PPE, and any used paper towels as clinical waste
- Wash hands.

15. Training Environment

There should be a clean and tidy environment in all training facilities; trainers should report any issues in the first instance to their Line Managers.

Workplace, Schools and Community trainers provide training not only in both St John Ambulance venues but also in company premises and must, as far as reasonably practicable, comply with all their policies and procedures on IPC and any other requirement they are informed of.

Protecting students from infection

Two methods of spreading infection must be considered as posing risks to both trainers and students in the training area; aerosol and direct contact spread.

Viruses and infections may be transmitted through:

- Direct contact of oral mucosa with manikin faces that may have been used by more than one student during a training session. the viruses which cause ‘cold sores’ can be transmitted by direct contact, especially if surfaces are inadequately cleaned or disinfected between each candidate
- Airborne spread between trainers and students of infectious diseases such as influenza and colds. The use of dedicated manikins or dedicated set of disposable lungs for individual training candidate will reduce this risk when used for those students with obvious viral infection or local lesions or wounds around the mouth, if available.

All breaks in the skin on hands and wrists shall be covered with waterproof dressings as they may act as a place of entry for infection.

If trainers or students have infectious lesions on their hands or in or around the mouth, a respiratory tract infection, or reason to believe that they have been exposed to, or are in the active stage of, any infectious process, they shall only participate actively in training of cardio-pulmonary resuscitation (CPR) by using an individually allocated manikin or a plastic face shield.

PPE for IPC purposes when training

St John Ambulance shall provide the required PPE for all training purposes.

The trainer will promote, demonstrate and use the appropriate PPE in all training scenario settings as appropriate and this shall include suitable provision for IPC and practice of standard precautions suitable and appropriate for a workplace situation, including gloves, face shields and pocket masks.

Where personal first aid kits are demonstrated, these must always include disposable gloves and a pocket resuscitation mask or face shield.

Care and use of manikins

All manikins used for training purposes, must undergo routine cleaning and decontamination processes. Modern training manikins are designed to limit and avoid cross-contamination. Manufactures (such as Laerdal) provide comprehensive decontamination and cleaning procedures which accompany their products. Please refer to the Decontamination of Mannikins Procedure available on Connect here https://stjohn.sharepoint.com/sites/c-policies-forms/Procedures/Forms/All%20procedures%20and%20guidance.aspx?id=%2Fsites%2Fc%2Dpolicies%2Dforms%2FProcedures%2FTraining%20Manikin%20Cleaning%20Procedure%2Epdf&parent=%2Fsites%2Fc%2Dpolicies%2Dforms%2FProcedures

16. Supporting procedures and guidelines

CFR PLUS app

JRCALC Plus app

Legal aspects of clinical care

Medical devices procedure

Decontamination of mannikins procedure

17. Procedure monitoring and compliance

If volunteers or employees become aware of non-compliance with the policy or its supporting procedures, this should be raised to the Regional Clinical Manager through the line management structure and appropriate action taken. If necessary, an IMF should be completed to facilitate recording of the incident and suitable investigation and monitoring.

Compliance measure – what we will measure?	How will it be measured?	Who will measure it?	Frequency	Who will it be reported to?
Availability of PPE, hand hygiene facilities, cleaning equipment, clinical waste bins, sharps bins, safer needles devices, disposable linen, body fluid spill kits, disposable mop heads	Clinical standards monitoring tool IPC Audit	Regional Clinical teams Assurance team	As required in the Clinical assurance plan Quarterly	Regional Leadership team, National Medical & Clinical Team Clinical Committee
Cleanliness of the environment	Clinical standards monitoring tool Vehicle deep clean ATP swabbing results IPC Audit	Regional Clinical teams InnoV8 Assurance team	As required in the Clinical assurance plan Every vehicle clean – reported quarterly Quarterly	Regional Leadership team, National Medical &Clinical Team Deep clean contract monitoring group Clinical Committee
Cleanliness of equipment	Clinical standards monitoring tool IPC Audit Tool	Regional Clinical teams Assurance team	As required in the Clinical assurance plan Quarterly	Regional Leadership team, National Medical & Clinical Team Clinical Committee

Hand hygiene compliance	Clinical standards monitoring tool IPC Audit Tool	Regional Clinical teams Assurance team	As required in the Clinical assurance plan Quarterly	Regional Leadership team, National Medical & Clinical Team Clinical Committee
Correct use of PPE	Clinical standards monitoring tool IPC Audit Tool	Regional Clinical teams Assurance team	As required in the Clinical assurance plan Quarterly	Regional Leadership team, National Medical & Clinical Team Clinical Committee

18. Procedure review and maintenance

The procedure will be reviewed every 3 years or sooner if new guidance/legislation/instruction is published.

19. References and Sources of Information

All links checked 16 May 2022.

https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/covid-19-guidance-for-maintaining-services-within-health-and-care-settings-infection-prevention-and-control-recommendations

https://aace.org.uk/wp-content/uploads/2022/04/NASIPCCG-position-statement-guidance-14422-FINAL_.pdf

C1630_Next-steps-on-IPC-Publication-of-revised-UK-Infection-Prevention-and-Control-IPC-Guidance-and-an-IPC-Man.pdf (england.nhs.uk)

https://www.england.nhs.uk/publication/national-infection-prevention-and-control/

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/449049/Code_of_practice_280715_acc.pdf

https://www.gov.uk/government/collections/health-building-notes-core-elements

https://www.gov.uk/government/collections/health-technical-memorandum-disinfection-and-sterilization

https://www.gov.uk/government/publications/guidance-on-the-safe-management-of-healthcare-waste

http://www.nipcm.scot.nhs.uk/

https://hpspubsrepo.blob.core.windows.net/hps-website/nss/2178/documents/1_tbp-lr-enhanced-PPE-for-infectious-diseases-of-high-consequence-v2.1.pdf

https://www.gov.uk/government/publications/antimicrobial-stewardship-start-smart-then-focus

Actions to contain carbapenemase-producing Enterobacterales (CPE) - GOV.UK (www.gov.uk)

The Infection Hazards of Human Cadavers - ISID

https://www.rcn.org.uk/professional-development/publications/pub-005940

https://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book

https://rcni.com/hosted-content/rcn/first-steps/chain-of-infection

https://www.gov.uk/government/publications/covid-19-personal-protective-equipment-use-for-non-aerosol-generating-procedures

https://www.gov.uk/government/publications/covid-19-personal-protective-equipment-use-for-aerosol-generating-procedures

https://www.hse.gov.uk/respiratory-protective-equipment/fit-testing-basics.htm

20.

21. Quick Procedure guide 1; Transmission Based Precautions Infectious Disease/Condition Table

These are precautions which should be used in addition to Standard Infection Control Precautions for specific infections

*If staff are uncertain of their immunisation status, they should discuss this with their Line Manager and/or Occupational Health provider.

** If there is gross contamination of the area/vehicle a Level 5 – Unscheduled terminal deep clean should be performed.

Due to COVID 19, level 3 PPE is strongly recommended for any St John person undertaking intubation.

Suspected or confirmed Pathogen/ Condition Disease	Mode of transmission	Optimal placement/ Transfer while infectious and/or symptomatic	PPE Requirement for patient contact	**Type of discharge clean
Adenovirus Upper +/- lower respiratory tract infection	Droplet	Single patient transfer	Gloves and apron Fluid resistant surgical facemask (FRSM) for routine care Level 3 PPE with FFP3 for AGPs(intubation)	Level 1 – After patient contact
Bacillus anthracis - Anthrax	Contact	Single patient transfer	Gloves and apron	Level 5 – Unscheduled terminal deep clean

Suspected or confirmed Pathogen/ Condition Disease	Mode of transmission	Optimal placement/ Transfer while infectious and/or symptomatic	PPE Requirement for patient contact	**Type of discharge clean
Bacillus cereus - Gastroenteritis	Contact	Single patient transfer	Gloves and apron	Level 1– After patient contact unless contamination with body fluids/incontinence - then Level 2 – contamination clean
Whooping Cough - Bordetella pertussis	Droplet	Single patient transfer	Gloves and apron Fluid resistant surgical facemask (FRSM) for routine care and FFP3 for AGPs(intubation)	Level 1 – After patient contact Level 5 after AGP(intubation) – Unscheduled terminal deep clean
Carbapenemase producing Enterobacteriaceae (CPE/CPO/CRE) - colonisation/infection	Contact	Single patient transfer	Gloves and apron	Level 1– After patient contact (unless contamination with body fluids/incontinence) Level 2 – Contamination clean
Clostridium difficile infection (CDI) – no diarrhoea	Standard	Standard	Gloves and apron for body fluids	Level 1– After patient contact unless

Clostridium difficile infection (CDI) – symptomatic with diarrhoea	Contact	Single patient transfer	Gloves and apron	contamination with body fluids/incontinence - then Level 2 – contamination clean with sporicidal wipes

Suspected or confirmed Pathogen/ Condition Disease	Mode of transmission	Optimal placement/ Transfer while infectious and/or symptomatic	PPE Requirement for patient contact	**Type of discharge clean
Coronavirus - SARS-CoV-2 / COVID-19 Respiratory symptoms	Droplet	Single patient transport	Gloves and apron Fluid resistant surgical facemask (FRSM) for routine care Level 3 PPE with FFP3 AGPs(intubation)	Level 1– After patient contact unless an AGP performed then Level 5 after AGP(intubation) – Unscheduled terminal deep clean
Diphtheria – Cutaneous, Pharyngeal (toxigenic strains)	Contact, Droplet (If Pharyngeal)	Single patient transfer	Gloves and apron Fluid resistant surgical facemask (FRSM) for routine care Level 3 FFP3 for AGPs(intubation)	Level 1– After patient contact Unless an AGP performed then Level 5 after AGP(intubation) – Unscheduled terminal deep clean
Gastrointestinal infections e.g. Salmonella, Campylobacter, Shigella, E.coli 0157, Staph aureus Diarrhoea and/or vomiting	Contact	Single patient transfer	Gloves and apron Fluid resistant surgical facemask (FRSM) if vomiting is present.	Level 1– After patient contact unless contamination with body fluids/incontinence - then Level 2- contamination clean

Methicillin resistant *Staphylococcus aureus* (MRSA) Colonisation/infection	Contact	Single patient transfer	Gloves and apron	Level 1 – After patient contact
Suspected or confirmed Pathogen/ Condition Disease	Mode of transmission	Optimal placement/ Transfer while infectious and/or symptomatic	PPE Requirement for patient contact	**Type of discharge clean
Hepatitis A virus Gastroenteritis	Contact	Single patient transfer	Gloves and apron Fluid resistant surgical facemask (FRSM) if vomiting is present.	Level 1– After patient contact unless contamination with body fluids/incontinence - then Level 2 – contamination clean
Shingles - Herpes zoster	Contact	Single patient transfer	*Only staff immune to chicken pox should have patient contact If immunity is unknown/unclear Fluid resistant surgical facemask (FRSM) for routine care and FFP3(intubation) for AGPs	Level 1– After patient contact Level 5- Unscheduled terminal deep clean
Influenza	Droplet	Single patient transfer	Gloves and apron Fluid resistant surgical facemask (FRSM) for routine care	Level 1– After patient contact Unless an AGP(intubation) performed then Level 5 – Unscheduled terminal deep clean

			Level 3 PPE with FFP3 for AGPs(intubation)	

Suspected or confirmed Pathogen/ Condition Disease	Mode of transmission	Optimal placement/ Transfer while infectious and/or symptomatic	PPE Requirement for patient contact	**Type of discharge clean
Measles (rubella)	Droplet/ Airborne	Single patient transfer	*Only staff immune should have patient contact If immunity is unknown/unclear Fluid resistant surgical facemask (FRSM) for routine care; FFP3 for AGPs(intubation)	Level 1 – After patient contact
Mumps	Droplet	Single patient transfer	*Only staff immune should have patient contact If immunity is unknown/unclear Fluid resistant surgical facemask (FRSM) for routine care FFP3 for AGPs(intubation)	Level 1 – After patient contact Level 5 after AGP(intubation) - Unscheduled terminal deep clean
Tuberculosis Extrapulmonary (Closed TB)	Contact	Standard	Standard infection control precautions FFP3 for AGPs(intubation)	Level 1– After patient contact unless an AGP(intubation) performed then

				Level 5 - Unscheduled terminal deep clean
Suspected or confirmed Pathogen/ Condition Disease	Mode of transmission	Optimal placement/ Transfer while infectious and/or symptomatic	PPE Requirement for patient contact	**Type of discharge clean
Tuberculosis Pulmonary (Open TB)	Airborne	Single patient transfer	Gloves and apron Fluid resistant surgical facemask (FRSM) for routine care Level 3 PPE with FFP3 for AGPs(intubation)	Level 5 - Unscheduled terminal deep clean
Meningitis– meningococcal (Or presentation of clinical meningitis of unknown origin), septicaemia	Droplet	Single patient transfer	Gloves and apron Fluid resistant surgical facemask (FRSM) for routine care Level 3 PPE with FFP3 for AGPs(intubation)	Level 5 - Unscheduled terminal deep clean
Norovirus – diarrhoea and/or vomiting	Contact	Single patient transfer	Gloves and apron Fluid resistant surgical facemask (FRSM)if vomiting is present.	Level 1– After patient contact unless contamination with body fluids/incontinence - then Level 2 – contamination clean with Clinell sporicidal wipes
Necrotising fasciitis - Panton Valentin Leukocidin (PVL) –	Contact	Single patient transfer	Gloves and apron	Level 1– After patient contact

positive Staphylococcus aureus				
Suspected or confirmed Pathogen/ Condition Disease	Mode of transmission	Optimal placement/ Transfer while infectious and/or symptomatic	PPE Requirement for patient contact	**Type of discharge clean
Slapped cheek syndrome - Parvovirus	Contact/ Droplet	Single patient transfer	Gloves and apron FFP3 for AGPs(intubation)	Level 1 – After patient contact Level 5 after AGP(intubation) – Unscheduled terminal deep clean
Multi- drug resistant (MDR) Pseudomonas	Contact	Standard	Gloves and apron	Level 1 – After patient contact
Rash - query cause	Contact	Single patient transfer	Gloves and apron	Level 1 – After patient contact
Respiratory syncytial virus (RSV)	Droplet	Single patient transfer	Gloves and apron FFP3 for AGPs(intubation)	Level 1 – After patient contact Level 5 after AGP(intubation) – Unscheduled terminal deep clean
German Measles - Rubella virus	Droplet	Single patient transfer	*Only staff immune should have patient contact If immunity is unknown/unclear Fluid resistant surgical facemask (FRSM) for	Level 1 – After patient contact Level 5 after AGP – Unscheduled terminal deep clean

			routine care and FFP3 for AGPs (intubation)	
Scalded skin syndrome - *Staphylococcus aureus* (Enterotoxigenic)	Contact	Single patient transfer	Gloves and apron	Level 1– After patient contact

Suspected or confirmed Pathogen/ Condition Disease	Mode of transmission	Optimal placement/ Transfer while infectious and/or symptomatic	PPE Requirement for patient contact	**Type of discharge clean
Streptococcus pyogenes (Group A Strep)	Droplet	Single patient transfer	Fluid resistant surgical facemask (FRSM) for procedures that may generate droplets	Level 1 – After patient contact
Chicken pox - Varicella virus	Airborne	Single patient transfer	*Only staff immune should have patient contact If immunity is unknown/unclear Fluid resistant surgical facemask (FRSM) for routine care and FFP3 for AGPs(intubation)	Level 1 – After patient contact Level 5 after AGP(intubation) – Unscheduled terminal deep clean

Vancomycin-resistant Enterococci (VRE)	Contact	Single patient transfer	Gloves and apron	Level 1– After patient contact unless contamination with body fluids/incontinence - then Level 2 – contamination clean
Viral Haemorrhagic Fever (VHF)		https://www.gov.uk/guidance/high-consequence-infectious-diseases-hcid https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/478115/VHF_Algo.pdf		

22. Quick procedure guide 2; Hand Hygiene

Hand Hygiene Good hand hygiene is the single most effective method in stopping the spread of infection; the wearing of gloves does not exclude the need for regular hand hygiene. Being bare below the elbow assists with good hand hygiene practices. There are two recommended methods for this: • Hand washing/hand wipes • Alcohol Based Hand Rub (ABHR).
Personal Protective Equipment for IPC Purposes Gloves to be worn for potential contact with blood and body fluids Disposable aprons to be worn for potential contact with body fluids is possible Safety eye wear and face masks to be worn for potential splashing of body fluids to face
Reducing Risk of Exposure to Blood Borne Viruses Pocket masks to be used for resuscitation Safer needles devices to be used where appropriate and available Do not re-sheath needles Dispose of sharps into sharps container at the point of use
Waste Management Waste must be disposed of into the correct waste stream: Clinical – dressing, soiled PPE Domestic – paper towels, packaging, used non soiled linen Sharps – any sharps item
Linen Management Disposable linen to be used and disposed of as domestic/clinical waste depending on contamination
Environment and equipment cleaning and disinfection Patient contact surfaces must be cleaned between patients Equipment must be cleaned between if multi-patient use The general environment must be kept clean St John Ambulance colour coding for equipment must be used

23. Quick procedure 3; Standard Precautions for Infection Prevention and Control

Hand Hygiene Good hand hygiene is the single most effective method in stopping the spread of infection; the wearing of gloves does not exclude the need for regular hand hygiene. Being bare below the elbow assists with good hand hygiene practices. There are two recommended methods for this: • Hand washing/hand wipes • Alcohol Based Hand Rub (ABHR)
Personal Protective Equipment for IPC Purposes Gloves to be worn for potential contact with blood and body fluids Disposable aprons to be worn for potential contact with body fluids is possible Safety eye wear and face masks to be worn for potential splashing of body fluids to face
Reducing Risk of Exposure to Blood Borne Viruses Pocket masks to be used for resuscitation Safer needles devices to be used where appropriate and available Do not re-sheath needles Dispose of sharps into sharps container at the point of use
Waste Management Waste must be disposed of into the correct waste stream: Clinical – dressing, soiled PPE Domestic – paper towels, packaging, used non soiled linen Sharps – any sharps item
Linen Management Disposable linen to be used and disposed of as domestic/clinical waste depending on contamination
Environment and equipment cleaning and disinfection Patient contact surfaces must be cleaned between patients Equipment must be cleaned between if multi-patient use The general environment must be kept clean, including administration and welfare areas

St John Ambulance colour coding for equipment must be used

24. Quick procedure guide 4; Hand hygiene

Good hand hygiene is the single most effective method in stopping the spread of infection. Hand hygiene should be performed in line with the WHO 5 moments for hand hygiene:

- Before patient contact
- Before clean or aseptic procedure
- After contact with body fluids
- After patient contact
- After contact with patient environment

There are two recommended methods for this;

- Hand washing or using hand wipes
- Alcohol based hand rub

25. Quick procedure guide 4; Action in case of an exposure to body fluids/needle stick injury

An exposure incident involves:

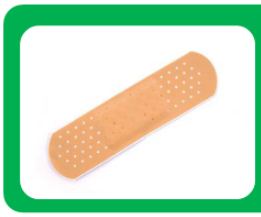
Piercing of the skin by needle or human bite

Blood or body fluids coming into contact with open wounds, eyes or mouth

Encourage bleeding from the wound

Wash the area thoroughly

- For splashes to the eyes and in the mouth, irrigate with copious amounts of water or saline solution



Cover the wound with a waterproof dressing.

Attend the **NEAREST** Accident & Emergency unit as soon as possible

- Take the copy of the completed St. John Patient Report Form

Inform Event manager and complete an Incident Report Form (IRF)

- The Event shall report the incident to the regional assurance manager.
- **ALL REPORTING WILL HAPPEN IN MEDICAL CONFIDENCE**

26.

27.

28. Quick procedure guide 5; Cleaning and disinfection

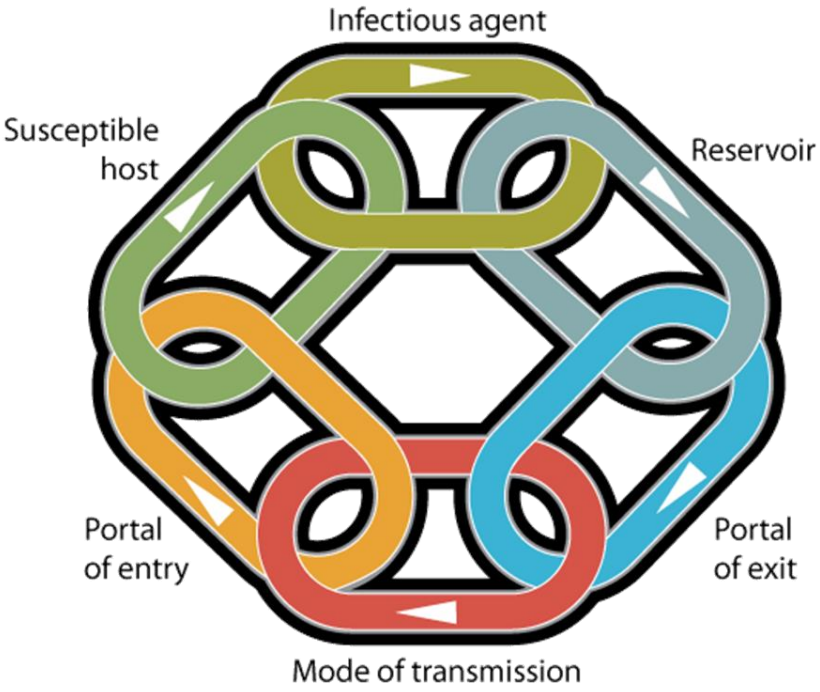
All cleaning equipment including mops, buckets and clothes should be colour coded as per below and disposable mop heads used. Only St John approved disinfectant wipes and solutions are to be used in order to ensure compatibility and consistent COSHH.

Level 1 - After each patient contact – performed by crew
• Personnel to wear gloves and aprons when cleaning
• All surfaces in contact with the patient shall be cleaned with a Clinell Green Universal wipe and allowed to air dry
• All disposable items shall be disposed of appropriately, including disposable linen items.
Level 2 - After every shift schedule or after contamination - performed by crew
• Routinely, when a vehicle is returned to base at the end of any event or shift, the inside of the vehicle floor shall be mopped
• The crew shall ensure that all waste containers are emptied and cleaned, and that the vehicle is suitable for its next duty
• Items used in direct contact with a patient or a crew member shall be cleaned using Clinell Green Universal wipe and allowed to air dry. If there is any suspicion that the patient had C.difficile, the Clinell Red Sporicidal wipes should be used.
• If the saloon is contaminated with body fluid, then the vehicle shall be mopped and cleaned using chlorine-based disinfectants at 1,000ppm av.chlorine or a Clinell Red Sporicidal Wipe used to decontaminate surfaces
• The surfaces, door handles, steering wheel inside of the cab will be wiped down with a Clinell Green Universal wipe
• All disposable items shall be disposed of appropriately, including disposable linen items.
• Gloves and aprons to be worn when performing an end of shift or contamination clean removed on completion and hands washed.
Level 3 – Scheduled Weekly clean - performed by crew
• The inside of the vehicle shall be cleaned and tidied. This means all walls and ceilings shall be wiped down with Clinell Green Universal wipes
• Cupboards, drawers and trauma walls shall be checked, cleaned wherever necessary, and re-stocked

• The cab area shall be checked and tidied
• Floors and lifts shall be cleaned and mopped using a detergent-based cleaning product, and all chairs/seats cleaned
• All patient equipment shall be thoroughly cleaned. A full inspection of the vehicle and all its equipment shall be carried out during the standard cleaning process
• Gloves and aprons to be worn when performing an end of shift clean, removed on completion and hands washed.
Level 4 – Scheduled Deep clean – performed by Innov8 contractor
• This process should be completed every 12 weeks. The deep clean process is managed and reviewed jointly by National Purchasing, Fleet, and Clinical teams.
• A deep clean is the process of removing all items, including equipment, from their storage areas and methodically cleaning the vehicle, both internally and externally:
• During this process the internal floors, cupboards, ceilings, and appropriate equipment will be decontaminated by the Contractor as per Standing Operating Procedure which has been agreed by the Medical and Clinical Directorate.
• Equipment stowage bags shall be checked for integrity and operational usage
• All hard items, such as defibrillators and suction units, shall be checked for operational usage
• All disposable equipment shall be checked for expiry dates and damage
• once a deep clean has been done, the vehicle will re-enter operations fully stocked, cleaned, and without deficiencies from the required standard.
Level 5 – Unscheduled Terminal Deep Clean – may be performed by Innov8 contractor or St John personnel if necessary
It may occasionally be necessary for an unscheduled thorough clean and disinfection of the vehicle to take place. The vehicle or area should be well ventilated for at least an hour prior to this deep clean being completed by St John people. This will be required: • Whenever there has been a significant spillages of body fluids such as blood, vomit and faeces • It may also be required following contact with a patient with an infection and after Aerosol Generating Procedures (AGP) performed, following contact with a potentially highly infectious patients and those infected with drug resistant microorganisms where there is body fluid spillage

- The crews are responsible for reducing the bioburden as much as possible before requesting an Unscheduled Terminal Deep Clean and the vehicle being taken off the road (VOR)
- The same procedure as for a level 4 clean is used.

29. Quick procedure guide 6; Chain of infection



The Chain of Infection is series of events which must happen to enable bacteria, fungi and viruses to cause infections in a person. Each part of the process is a separate 'link' in the chain and if we can break a link at any part of the chain, we can stop infection arising.

The reservoir is a place where the infectious agent can live and multiply. The 'place' can be a person – a patient/casualty/client or someone providing care – but it can also be any part of the surrounding area of a health care setting, furnishings in the patient's/client's room and the equipment we use in health care.

The portal of exit from the reservoir is the means by which the infectious agent can escape from the reservoir. For instance, think about the infectious agent sitting on a work surface(the reservoir). A health care worker comes along and touches/uses the work surface and some of the germs move onto their hands. The health care worker's hands are now the 'portal of exit' – the means by which the germs are able to move from the work surface to another place. Other 'portals' can be people's normal excretions (stools, vomit), body fluids (blood, saliva) and the air they breathe from their lungs, especially when they cough. The portal can vary from one infection to another (for example diarrhoeal infections are usually passed on via the patient's faeces). Non-human portals of exit for germs include items of equipment that haven't been properly cleaned, such as suction machines, grab handles, work surfaces, stretcher mattresses, pillows and other reusable equipment.

The mode of transmission is how the infectious agent moves, or is spread, from one place to another. This can happen in a number of ways, such as health care workers' hands touching dirty equipment or contaminated medical instruments, or through the air (coughs, sneezes).

The portal of entry into the 'host' means that the infectious agent has been moved from the reservoir and can now invade the person (the 'host'). They can do this by entering wounds and cuts, being swallowed and being breathed in.

Patients who are having treatments that involve cutting the skin or placing medical instruments inside the body, such as a catheter being placed into the bladder or a cannula insertion, are also at risk of infection.

The susceptible host - Healthy people have their own defences which help them fight infection. This means that even if some harmful germs enter the body, the person can 'fight them off' and stay well. The ability of the body to defend itself against infection is called 'immunity'. Some people, however, can't fight infection effectively.

These include very young children, older people, people who are ill or who are receiving particular medicines that reduce their immunity, people with long-term health conditions like diabetes and those who are physically weak due to, for instance, malnutrition or dehydration.

People such as these are 'susceptible hosts' – meaning they are vulnerable to developing infection when their bodies are invaded by germs.

The infectious agent

The infectious agent is simply the bacteria, fungi or virus that causes the infection. These are all around us and within us, and many play very important roles in keeping us healthy. The problem comes when an organism leaves its normal place to go elsewhere in the body – the organisms that sit on your skin and which usually cause no harm, for instance, getting into a cut. The organism could then cause infection. There are also many organisms that are not helpful to health and which cause disease. Entry of any of these into the body is likely to cause problems.

https://rcni.com/hosted-content/rcn/first-steps/chain-of-infection

St John Ambulance
27 St John's Lane
London
EC1M 4BU

08700 10 49 50
sja.org.uk

Call your local office on
08700 10 49 50