

Infection Prevention in Theatres

Approved By:	Policy and Guideline Committee
Date of Original Approval:	18 February 2008
Trust Reference:	B14/2008
Version:	V3
Supersedes:	V2 March 2017 (review date extended September 2020)
Trust Lead:	Islwyn Jones Senior Nurse Infection Prevention
Board Director Lead:	Chief Nurse/Director of Infection Prevention
Date of Latest Approval	23 July 2021 Policy and Guideline Committee
Next Review Date:	July 2024

CONTENTS

Section		Page
1	Introduction and Overview	3
2	Policy Scope – Who the Policy applies to and any specific exemptions	3
3	Definitions and Abbreviations	3
4	Roles- Who Does What	3
5	Policy Implementation and Associated Documents-What needs to be done.	4
6	Education and Training	7
7	Process for Monitoring Compliance	8
8	Equality Impact Assessment	9
9	Supporting References, Evidence Base and Related Policies	9
10	Process for Version Control, Document Archiving and Review	9

REVIEW DATES AND DETAILS OF CHANGES MADE DURING THE REVIEW

March 2021 Complete rewrite of guidelines and changed to policy format

KEY WORDS

Infection Prevention

Theatres

Skin Prep

Patient warming

1 INTRODUCTION AND OVERVIEW

- 1.1 This document sets out the University Hospitals of Leicester (UHL) NHS Trusts Policy and Procedures for Infection Prevention Practice within Theatre environments.

2 POLICY SCOPE

- 2.1 This policy applies to all staff working within Theatre environments across UHL and Alliance sites.

3 DEFINITIONS AND ABBREVIATIONS

CMG – Clinical Management Group

FFP3 – Filtering Face Piece 3

MRSA – Meticillin Resistant *Staphylococcus aureus*

VRE – Vancomycin Resistant *Enterococci*

XDR – Extensively Drug Resistant organisms

4 ROLES

4.1 Chief Nurse/Director of Infection Prevention

The Chief Nurse is responsible for Infection Prevention practices within the Trust in their current role as Director of Infection Prevention and control.

4.2 CMG Clinical Director

The CMG Clinical Director responsible for theatre areas is accountable for the CMG's infection prevention performance. The CMG Clinical Director is expected to set a good example and ensure that others do the same by complying with infection prevention policies. The CMG clinical director for theatres will ensure that any visiting medical staff into their areas from other cmg's are familiar with this policy and its contents

4.3 CMG Head of Nursing

The CMG Head of Nursing for theatre areas is responsible for ensuring that nursing, midwifery and ODP staff within the CMG are compliant with this policy. In conjunction with Infection prevention they will ensure this policy is kept up to date.

4.4 Matron

The matron responsible for theatre areas will ensure all aspects of this policy are implemented within their area and carry out any audits as required. The theatre matron will ensure dissemination of this policy occurs both within their department and to any visitors to their department.

4.5 Infection Prevention Team

The Infection Prevention Team will provide a specialist infection prevention nurse to support CMG's with theatre areas. They will support with education and training and audits where required and ensure support with the review of this policy.

4.6 Staff Working in Theatres

All staff working in theatres are responsible for following the content of this policy and supporting others in the implementation of the policy.

5. POLICY IMPLEMENTATION AND ASSOCIATED DOCUMENTS

5.1 Theatre Attire

- 5.1.1 All theatre personnel and visitors who enter the operating theatre must don appropriate theatre attire.
- 5.1.2 This includes scrubs, theatre cap and appropriate non slip anti-static footwear
- 5.1.3 Jewellery including wrist watches must be removed. Plain wedding band and one pair of stud earrings may be worn.
- 5.1.4 As per the [Trust uniform policy \(B30/2010\)](#) theatre scrubs can be worn outside the theatre environment but must not be worn outside of the Trust buildings. All Personal Protective Equipment must be removed before leaving the Theatre suite.
- 5.1.5 Home laundering of theatre attire is not permitted and must be sent to the commercial laundry provider.
- 5.1.6 Face masks must be worn by the surgical team. In orthopaedic and Trauma theatres all staff within the operating theatre must wear a face mask. Face masks must be changed between patients. Masks must not be worn around the neck or put into pockets for future use. *N.B Currently all staff are wearing masks due to COVID-19*
- 5.1.7 FFP3 Respirators and a long sleeved gown and gloves must be worn when carrying out Aerosol Generating Procedures where the patient is suspected or know to have a respiratory infection that is spread via the aerosol route.
- 5.1.8 Protective face shields/Eye protection must be worn whenever activities place personnel at risk from splashing of blood or body fluids or aerosol contamination.
- 5.1.9 If theatre attire becomes wet or soiled it must be removed and placed into appropriate laundry bags and clean attire donned.
- 5.1.10 Footwear must be well fitting, supportive and protective. It must be for theatre use only and cleaned daily and when contaminated using chlorclean or clinell Universal wipes.

5.2 Environment

- 5.2.1 The movement of personnel in and out of theatre must be limited as opening and closing of doors can disrupt airflow.
- 5.2.2 Staff within the theatre during procedures must be kept to a minimum required to safely perform the procedure.
- 5.2.3 Ventilation system performance will be validated on a yearly basis by a specialist contractor and feedback provided to the Theatre teams on performance.

5.2.4 Where theatre ventilation systems can operate in two modes ie ultra clean (UCV) and conventional the theatre teams must ensure that they are in the correct mode before operating. UCV is generally only used for elective orthopaedic surgery. This mode can rapidly dry out wound sites therefore unless indicated must not be used in any other type of surgery.

5.3 Equipment

5.3.1 All equipment must be clean before being brought into theatre.

5.3.2 Reusable equipment such as the table, trollies etc must be cleaned and disinfected between each patient.

5.3.3 Reusable surgical instruments must be sent for reprocessing at the Sterile services contractor or the decontamination hub if endoscopes

5.3.4 A system must be in place to track all surgical instruments

5.3.5 Sterile integrity of instruments must be checked before use and recorded

5.3.6 Sterile instruments must be stored in a clean, dry dust free environment

5.3.7 Instruments are set up immediately prior to use as leaving open for long periods increases the risk of external contamination.

5.3.8 Cleaning books will be kept in each theatre to log equipment cleaning. This will be for items such as the table, trollies and monitoring equipment.

5.4 Patients

5.4.1 Patients undergoing surgery as an inpatient need screening for Meticillin Resistant Staphylococcus aureus (MRSA). Specific screening requirements are included in [MRSA policy B12/2015](#).

5.4.2 Patients in the High risk category in the [MRSA policy](#) require nasal mupirocin and stellisept washes. All elective patients will commence this 48 hours prior to surgery. This will be documented on their drug chart.

5.4.3 Patients who are identified as high risk of having an Extensively drug resistant organism (XDR) must have a rectal swab sent for PCR testing at pre admission. See [Carbapenem Resistant Organisms and extensively drug resistant guidelines B64/2019](#)

5.4.3 Patients must change into appropriate theatre gowns prior to entering the theatre. For some minor procedures such as cataract surgery patients may remain in their own clothing. In addition this may not be possible for emergency procedures.

5.4.4 Hair removal must only be done if necessary and must be done using a clipper with disposable head. Hair will be removed as close to the time of incision as possible. Staff will ensure that they have received training on hair removal and competent in the procedure.

5.4.5 Unless contraindicated a single use preparation of 2% Chlorhexidine gluconate in 70% alcohol will be used as surgical skin preparation. If contraindicated an alcoholic iodine solution can be used.

5.4.6 If incise drapes are used unless contraindicated an iodophore drape will be used. If iodine is contraindicated non antimicrobial drapes can be used.

5.5 Antibiotic prophylaxis

5.5.1 Appropriate antibiotic prophylaxis is important in some surgical procedures to reduce the risk of infection.

5.5.2 The Trust Surgical Prophylaxis policy (B14/2007) must be followed at all times. The guidance is also available on the [Antimicrobial website](#).

5.6 Patient Warming

- 5.6.1 Patients must be informed of the need to stay warm prior to surgery and the risk of surgical site infection. They should ensure that they have warm clothing available such as a dressing gown and tell staff at any point they feel cold.
- 5.6.2 Pre operative temperature must be checked in the hour before they leave the ward or department. Patients are at increased risk of infection if their temperature is below 36.0°C. Preoperative warming must occur unless clinically contraindicated.
- 5.6.3 Active warming must be maintained throughout the intraoperative phase unless cooling of the patient is required due to the type of surgery performed.
- 5.6.4 During the intraoperative phase the patients temperature must be measured at induction of anaesthesia and every 30 minutes thereafter.
- 5.6.5 Intravenous fluids (500ml or more) and blood products must be warmed to 37° using a fluid warming device.
- 5.6.6 All irrigation fluids must be warmed in a thermostatically controlled cabinet to a temperature between 38-40°C

5.7 Asepsis

- 5.7.1 Proper aseptic hand hygiene is a priority at the beginning of any surgical procedure. Always follow the [Scrubbing Gowning and Gloving policy \(B7/2014\)](#)
- 5.7.2 When performing a procedure all people present including the patient if awake know how to prevent contamination of the sterile field and know to avoid moving suddenly, touching the equipment, laughing, sneezing or talking over the sterile field.
- 5.7.3 All objects used in the sterile field must be sterile.

5.8 Wound care

- 5.8.1 Tissue viability advice can be obtained from the tissue viability team where required.
- 5.8.2 Any specific wound management plan must be documented in the patient notes.

5.9 Care of Patients with Known or suspected infections

- 5.9.1 Patients alerts must be stated on the operating list and an alert label must be on the patients medical notes where the patient has a history of an alert organism such as MRSA, VRE, XDR
- 5.9.2 Immediately prior to the patient being taken to theatre superfluous equipment must either be removed from the operating room or covered with a plastic sheet which should be removed and disposed of post operatively during cleaning of the theatre.
- 5.9.3 The patient, if not able to walk should be transported to theatre on a clean bed, trolley or wheelchair.
- 5.9.4 On arrival to theatre patients should be taken straight into theatre, NOT the anaesthetic rooms, to reduce the risk of environmental contamination. An appropriate isolation sign must be placed on the doors to Theatres

- 5.9.5 Patients must have their procedure carried out in a 'closed' theatre. That is, no unnecessary personnel should enter during surgery and staff in the theatre kept to a minimum.
- 5.9.6 Ideally patients requiring isolation precautions should be last on the list, but if this is not possible the theatre can only be re-used after being cleaned.
- 5.9.7 Patients who require isolation must be recovered in theatre to minimise the number of areas requiring a post infection clean.
- 5.9.8 A fallow period is required where infectious aerosols have been produced. This is generally 20 minutes. Once this has lapsed the theatre can be cleaned as per normal post infection clean. The patient and staff do not need to remain in the theatre during this fallow period.
- 5.9.9 Once cleaned the isolation sign can be removed.

6 EDUCATION AND TRAINING REQUIREMENTS

- 6.1 All staff having clinical contact with patients and/or their environment must undertake annual updates on infection prevention policies and guidelines. The annual update involves either online training or completing a paper copy of the workbook. Non clinical staff must complete and undertake yearly update online training in infection prevention specifically aimed at non clinical staff.
- 6.2 Training is currently facilitated by the Infection Prevention Team.
- 6.3 Infection prevention training is mandatory within the Trust.
- 6.4 Educational promotions will be available for members of the public to improve understanding of infectious conditions, communicable diseases and infection prevention practice via the Trust external Website and promotional information available in wards and departments.

Where there are specific training requirements in relation to procedures or types of infection these will be detailed in the specific policy or guidelines.

7 PROCESS FOR MONITORING COMPLIANCE

Element to be monitored	Lead	Tool	Frequency	Reporting arrangements Who or what committee will the completed report go to.
One together toolkit – This toolkit provided an audit process for practices within the theatre environment that relates to prevention of infection	CMG/Alliance Lead Nurse/IP CMG Lead	One together toolkit	Quarterly review	CMG/Alliance Infection Prevention Operational Group

8 EQUALITY IMPACT ASSESSMENT

- 8.1 The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs.
- 8.2 As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

9 SUPPORTING REFERENCES, EVIDENCE BASE AND RELATED POLICIES

One together toolkit- Reducing the risk of infection on the patients surgical pathway
<https://www.onetogether.org.uk/home/>

The Association for Perioperative Practice Infection Control
<https://www.afpp.org.uk/filegrab/afpp-infection-control-0820.pdf?ref=2319>

[Meticillin Resistant *Staphylococcus aureus* policy](#) B12/2015

[Infection Prevention Policy B4/2005](#)

[Multi Drug Resistant organisms B63/2019](#)

[Carbapenem Resistant \(CRO\) and Extensively Drug Resistant Policy](#) Carbapenem Resistant (CRO) and Extensively Drug Resistant Organisms Policy B64/2019

[Scrubbing and Gowning Policy B7/2011](#)

[Surgical Prophylaxis Policy B14/2007](#)

[Uniform and Dress Code B30/2010](#)

10 PROCESS FOR VERSION CONTROL, DOCUMENT ARCHIVING AND REVIEW

The updated version of the Policy will then be uploaded and available through INsite Documents and the Trust's externally-accessible Freedom of Information publication scheme. It will be archived through the Trusts PAGL system