Sheffield Teaching Hospitals NHS Foundation Trust

INFECTION PREVENTION AND CONTROL PROGRAMME April 2022 - March 2023

This document details the Sheffield Teaching Hospitals NHS Foundation Trust (hereafter referred to as the Trust) trust-wide Infection Prevention and Control (IPC) Programme for the year April 2022 – March 2023. The Infection Prevention and Control Team (IPCT) takes the lead in developing the Programme Trust-wide. The Nurse Directors (or equivalent) and Clinical Directors are responsible for implementing the IPC Programme within their Groups/Directorates/departments with assistance from the Matrons and Medical IPC Leads. It is important to remember that the IPCT can advise, monitor and educate, but it is the responsibility of each and every member of Trust staff to put infection prevention and control into practice, particularly those involved in direct patient care.

This IPC Programme describes the infection prevention and control activities that the Trust will focus on this year. All areas will continue to follow existing infection prevention and control activities, policies, protocols, procedures and guidelines unless specifically updated or superseded.

The Trust IPC Programme outlines the issues to be addressed this year. Each Group or department can produce their own programme/action plan detailing how the requirements in the Trust IPC Programme will be undertaken at a local level. A progress report should be returned to the Director of Infection Prevention & Control (DIPC) twice a year using Appendix A, B, C or D as, appropriate. Progress in relation to the IPC Programme is the responsibility of the Clinical Directors and Nurse Directors (or equivalent).

The focus this year will be on:

- Prevention and Control of Covid-19
- Optimising staff personal protective equipment (PPE)
- Antimicrobial Stewardship

Most of the other activities will relate to these issues by either being an integral part of them or via audit, ownership etc.

The IPC Programme is divided into the following Sections:

- IPC Accreditation Programme
- High Impact Interventions/NICE guidance/EPIC3 guidance
- Health & Social Care Act/ CQC
- Ownership at Group/ Directorate/ Ward/Department/Service level
- Audit and Review
- Surveillance
- *Staphylococcus aureus* - resistant (MRSA) and sensitive (MSSA)
- *Clostridioides difficile* (*C.difficile*)
- Gram Negative Organisms
- Covid-19, Influenza & Other Respiratory Viruses
- Norovirus
- Hand Hygiene
- Novel and High Consequence Infectious Diseases (HCID) pathogens
- Management of Invasive Devices: Peripheral and Central intravenous cannulae & Urinary catheters
- Antimicrobial Stewardship
- Decontamination of Medical Devices & Patient Shared Equipment
- Environmental, Cleaning & Waste
- Education, Training & Personal Protective Equipment (PPE)
- Communication, Information and Information Technology
- Research, Service Evaluations, Studies and Assessments

1. Infection Prevention and Control Accreditation

1.1 The Infection Prevention and Control (IPC) Accreditation Programme will continue to be the main means by which infection prevention and control practice is optimised and assessed throughout the Trust. The Accreditation standards include hand hygiene, cleanliness and application of the High Impact Interventions (HII)s within the Department of Health (DH) Saving Lives[1] toolkit, including appropriate audits and actions following external reviews.

1.2 All in-patient wards should achieve Accreditation initially and then keep up to date with the rolling programme of audits thereafter. Formal Re-accreditation should take place annually.

1.3 All non-ward based departments including inpatient, out-patient and day-case areas should achieve Accreditation initially and then keep up to date with the rolling programme of audits thereafter. Formal Re-accreditation should take place annually.

1.4 All community based services should achieve Accreditation initially and then keep up to date with the rolling programme of audits thereafter. Formal Re-accreditation should take place annually.

1.5 The Accreditation Programme will continue to include the High Impact Intervention on Prevention of Surgical Site Infection as a key element of the Trusts plan to reduce surgical site infections.

1.6 All areas will use the most recent version of the relevant Accreditation Programme

1.7 Where wards/departments/community based services do not achieve compliance with any particular standard they will take action as appropriate and re-audit as required within the Accreditation Programme

1.8 All wards/departments/community based services will submit their Accreditation audit scores to the IPCT. The IPCT will upload the results onto a central database. This data will be used for the initiatives described in sections 1.11 to 1.19 and therefore it is extremely important that wards/departments/community based services submit data in a timely manner.
Acute Area audit score submission form
Community Services audit score submission form

1.9 All audit scores should be submitted to the IPCT in as near to real time as possible i.e. within few days of the audit being undertaken

1.10 The results of all Accreditation audits should be submitted including the initial audits undertaken each month, which may or may not show optimal compliance, plus any follow up audits. This will help to show progression and that practice is being monitored appropriately and audit findings responded to. Where appropriate, action plans to address any non-compliant audits should be developed by the clinical teams.

1.11 The IPCT will undertake a six-monthly review of how wards/departments/ community based services are progressing towards Re-accreditation. This will include a check of the completeness or otherwise of the submission of audit scores as detailed in sections 1.8 to 1.10 including submission of the quarterly Antimicrobial prescribing audits completed by ward based medical staff. The aim will be to undertake most of this activity outside of the busy winter period. Where a review falls during the busy winter period, some delay may occur but the review will be undertaken as soon as possible as work load allows.

1.12 The IPCT will compile Accreditation Status Reports for both acute and community based services. These reports will code wards/departments/ community based services as follows:

White - 12 or less months since last accreditation
Green – 13 - 15 months since last accreditation, or new to programme
Amber - 16-18 months since last accreditation
Red - 19 or more months since last accreditation or has never accredited
Engagement Concern – Where there is concern regarding on-going commitment to IPC Accreditation, regardless of when the ward/area last Accredited

1.13 The Accreditation Status Reports will be sent out quarterly to Nurse Directors, Deputy Nurse Directors, Lead Nurses, Matrons, Ward Managers and IPC Leads in non-ward based departments and services

1.14 The IPC Committee will receive the current Accreditation Status Reports for consideration at their quarterly meetings

1.15 The JICT will receive the current Accreditation Status Reports for consideration at their bi-monthly meetings

1.16 The Professional Assurance Committee will receive the current Accreditation Status Reports for consideration at their monthly meetings

1.17 Areas not progressing satisfactorily will be subject to the agreed escalation process. This will involve reporting to the Lead IPC Nurse, Lead Nurse for Quality and Practice Development, Deputy Chief Nurse and Chief Nurse depending on the degree and persistence of non-compliance. Key stages of the escalation process are

- Where records suggest Accreditation is likely to lapse, there is contact with the Ward/Department/Service Manager from a named IPC Nurse Specialist at the time re-Accreditation is due, requesting an action plan within 10 days
- Monitoring of progress against the proposed action plan
- Contact with the Matron/Service Lead for an area from the Lead IPC Nurse at 15 months since last Accreditation, with an urgent request for an action plan for recovery
- Contact with the Deputy Nurse Directors for an area from the Lead IPC Nurse at 16 months since last Accreditation, with an urgent request for an action plan for recovery
- Meeting with the Trust Chief Nurse/Deputy Chief Nurse/Lead Nurse for Quality and Practice Development to discuss lack of progress and agree a clear action plan to achieve re-Accreditation.
- Any concerns about progress with Antimicrobial Prescribing audits will be escalated by the Antimicrobial Stewardship Team via the Directorate Medical Antibiotic Champions. The Accreditation Status Reports will note missing Antimicrobial Prescribing audits and any implications for Accreditation.

1.18 The Engagement Concern flag is now an embedded feature of the Accreditation Programme. An Engagement Concern flag will be used to highlight any area that appears not to be fully engaged with Accreditation despite the IPCT's best efforts to support them. In such an area, Accreditation is not likely to be providing the level of assurance required around infection prevention and control practices. An Engagement Concern flag will be added to a ward/ department/community service as a result of the escalation process described above and may also be applied in other circumstances in advance of an actual lapse in Accreditation. For example, an Engagement Concern flag will be added for any area on *C. difficile* alert with no satisfactory improvement in audit scores several weeks into the alert

situation. Other examples of situations that will attract an Engagement Concern flag are if an area:

- does not submit Accreditation data in a timely way
- does not submit the required Accreditation data consistently or submits data that does not provide assurance of the correct standards being achieved
- does not engage fully with antimicrobial prescribing audit
- does not engage fully with mattress audits commissioned by STH
- does not support its Infection Prevention & Control Link Worker to attend the minimum number of Link Worker Updates/Forum meetings during the year, which would delay Accreditation.

Adding an Engagement Concern flag confirms an Engagement Concern that has already been highlighted with a ward/department/community service and escalates these concerns for further support and resolution. Engagement Concern alerts are discussed quarterly at the Trust Healthcare Governance Committee.

1.19 Where progress towards Accreditation is slow due to IPCT availability issues (either in undertaking audits or reviewing Accreditation paperwork), this will be brought to the attention of the Lead IPC Nurse by the area/department concerned. If problems persist the area/department can contact the DIPC or Deputy Chief Nurse/Lead Nurse for Quality and Practice Development.

1.20 When the IPCT undertakes reviews on wards/departments/services following the detection of clusters of infection, the progress in respect of Accreditation will be investigated and form part of the outbreak report

1.21 The IPC Accreditation status of the ward/department/service will continue to form part of the Trust quality/assurance assessment via Quest.

1.22 The IPCT will update and publish the Acute and Community Accreditation Programmes. Updates being explored during 2022/23 will be:

- Evaluating the scoring systems for the Accreditation audits and determining an improved quantitative and transparent approach
- Introducing peer review audits within the Accreditation Programme with the aim of providing increased confidence in the current process and allow the sharing of good practice
- Transferring the Accreditation Programme on to the Quest platform with the aim of providing increased transparency of data and ease of compliance monitoring

1.23 The IPCT will continue to include an annual water outlet inventory in the updated IPC Accreditation Programmes. The aim is to replace these audits by incorporating quarterly water usage assessments in clinical areas onto Quest in the coming year

2. High Impact Interventions[1]/Saving Lives[2]/NICE Infection Prevention & Control Guidance[3, 4, 5]/EPIC3 National Evidence Based Guidelines for preventing HCAI[6]

2.1 The Infection Prevention Society High Impact Interventions[1] and Saving Lives[2] toolkits will be applied at both a trust-wide & directorate level, as appropriate

2.2 Application and audit of the High Impact Interventions will be via the IPC Accreditation Programme

2.3 NICE infection prevention and control guidance[3, 4, 5] will be implemented via the IPC Programme and IPC Accreditation Programme.

2.4 EPIC3 guidelines[6] will be implemented via the IPC Programme and IPC Accreditation Programme

2.5 To strengthen continuous quality improvement and learning, the IPCT will include topical infection prevention and control issues, learning points from root cause analyses and feedback of audit and surveillance results as part of the monthly IPC Bulletin.

2.6 The Trust will continue to progress the use of safer sharps devices. The prime responsibility for this lies with the 'Medical Sharps Group' who report to the Occupational Safety and Risk Committee. All staff, including the IPCT will participate as appropriate in progressing and implementing this initiative.

3. Health and Social Care 2008[7], Care Quality Commission, NHS England NHS Contract[8] and IPC Board Assurance Framework[24]

3.1 One of the Trust objectives is to be fully compliant with the current version of the Health and Social Care Act 2008[7]. Similarly, the Trust registration with the Care Quality Commission (CQC) requires compliance with their registration standards[9] including those that relate to infection prevention and control; these mainly relate to Regulations 12 and 15 in the new 2014 standards.

3.2 The Deputy Chief Nurse, DIPC, the Lead IPC Nurse together with the IPCT will review the Health Act[7] and the CQC standards[9] and any issues/actions required to achieve the aforementioned objectives will inform the IPC Programme.

3.3 The Trust aims to be fully compliant with the current version of the NHS IPC Board Assurance Framework[24]. A gap analysis against this document is undertaken on a regular basis and kept under review by the IPC Team, IPC Committee and Healthcare Governance Committee.

3.4 The IPC Committee has agreed the following as infection prevention and control incidents that should be reported on Datix:

- Where a single room is required for IPC purposes but this is not available
- Hospital Onset *C.difficile* cases: where the episode has been deemed Potentially Avoidable/Lapse in Care identified following a RCA/PIR
- Hospital Onset MRSA bacteraemia cases: where the episode has been deemed Potentially Avoidable/Lapse in Care identified following RCA/PIR
- For whatever reason an RCA/PIR has taken place following an infection prevention and control related incident and this has identified a concern or an avoidable cause
- Note: this list is not exhaustive and wards/areas can report any IPC related incident where they have a concern

The aforementioned list will be reviewed during the year following publication of the NHS contract[8]

3.5 Duty of Candour requirements[10] will be applied to appropriate infection prevention and control incidents

3.6 Directorates should follow the Trust governance processes for responding to infection prevention and control incidents, Datixed events etc. using the templates, forms etc. determined by the Trust Healthcare Governance Team.

3.7 The Trust will continue to work with primary care colleagues to strengthen links between the various healthcare sectors within Sheffield, particularly in respect of infection prevention and control issues.

3.8 The Trust CQC Compliance Manager will collate any infection prevention and control information required by the CQC in relation to their on-going assessment of the Trust and for any other reviews, assessments and on-site visits. The IPCT will work with the Compliance Manager to optimise the collection and presentation of this information.

3.9 The Trust will consider, and work towards achieving, the infection prevention and control related requirements within the latest NHS contract[8].

3.10 Liaison with Sheffield CCG colleagues is mentioned a number of times throughout this document. Given the plans to abolish CCGs during the coming year, the Trust will keep these issues under review and determine which body/agency will take these forward in the future.

4. Ownership at Group/Directorate/Ward/Department/Service level

4.1 The Board of Directors, Trust Executive Group (TEG) and DIPC will continue to progress ownership of infection prevention and control at Group, directorate, ward, department and service level.

4.2 Clinical Directors and Nurse Directors (or equivalent) will ensure that all staff within their Group/Directorate are aware of their responsibilities and accountabilities in respect of infection prevention and control

4.3 Clinical Directors and Nurse Directors (or equivalent) will, where appropriate, report concerns they have in respect of infection prevention and control issues to TEG and the Board of Directors on a twice-yearly basis. The mechanism for this will generally be via the appropriate section of Appendix A or B, as appropriate, of the Performance Assessment form completed by each Group twice yearly, see section 4.5e) below.

4.4. The IPCT will continue to work with community based services staff in respect of infection prevention and control issues specific to the various services provided in this setting. This includes responsibility and accountability structures for the management of the estate, maintenance, decontamination, legionella control.

4.5 Clinical Directors and Nurse Directors (or equivalent) have responsibility for infection prevention and control at Group/department level. They should:

a) Ensure Leads for infection prevention and control at all levels throughout their Group.

b) Ensure the engagement of senior and junior medical staff within their area. To this end a consultant will be appointed as the Medical IPC Lead for each Directorate (and sub-directorate as appropriate)

c) Ensure that infection prevention and control is integrated into the Healthcare Governance structure of the Group/Directorate/department

d) Be aware of areas of non or partial compliance with the full Trust IPC Programme (not just IPC Accreditation) and have a mechanism for identifying these and regularly tracking progress towards addressing them. The twice yearly returns may be used for this purpose or a standalone Directorate/department action plan may be appropriate depending on the department concerned and the issues that need addressing.

e) Review progress in respect of the IPC Programme on a twice-yearly basis. A completed Performance Assessment form (Appendix A or B as appropriate) should be returned to the DIPC on a twice -yearly basis as follows: initial return between 8th and 15th July 2022 and final return between 7th and 21st April 2023. This requirement will be kept under review e.g. Covid related pressures, and Directorates informed of any changes, as appropriate. Generally these returns are submitted by the Nurse Director. However, the Clinical Director(s) should also agree and endorse these returns. The sections relevant to medical staff should be completed by an appropriate member of the medical staff e.g. the Clinical Director or the Medical IPC Lead(s) for the area(s) concerned.

f) Where appropriate use the annual summary section of the performance assessment form as a Report of the Group/ department's activities and progress in respect of their IPC Programme and return this to the DIPC as part of the April 2023 Performance Assessment Form – see final page of Appendix A or B respectively

g) Ensure that infection prevention and control is a regular agenda item at Directorate Healthcare Governance and Risk Management meetings and that medical colleagues are included and active in this area of patient care. The issues discussed and minuted should include

progress in relation to IPC Accreditation, issues raised from audits carried out in response to clusters of infection and areas for improvement detected by surveys, audits, RCAs, complaints etc.

h) Ensure that the monthly MRSA, MSSA and *C.difficile* data, sent out by the IPCT within the IPC Bulletin is reviewed at directorate and ward/department/service level and action taken where data shows that cases have arisen in those areas. News, alerts and lessons to learn should be noted and actioned, as appropriate.

i) Ensure that all staff engage fully when the IPCT deem that reviews are required, in particular when episodes of MRSA bacteraemia or clusters of cases of MSSA, MRSA or *C.difficile* infection occur. See sections 6.12, 7.22 to 23 and 8.12 to 17 below. MRSA bacteraemia data and data on clusters of infections associated with wards/departments/ services e.g. *C.difficile*, MRSA, MSSA, norovirus etc. should be reported and discussed at the Directorate Healthcare Governance and Risk Management meetings

4.6 Clinical Directors and Nurse Directors (or equivalent) should ensure that the following infection prevention and control related policies, procedures and guidance are implemented in all wards/departments/services, as appropriate. The documents can be accessed via the Infection Prevention and Control web-page http://nww.sth.nhs.uk/NHS/InfectionControl/ and click on 'Clinical Guidelines and Policies' tab on the left hand side of the page.
As a minimum each ward/department/service should review the documents listed in section 4.7

a) When the document is initially published and

b) When the document is reviewed/updated and re-published – this is usually every 3 years. Some documents may be reviewed and updated within the three year time period if significant changes occur that necessitate an earlier update.

The Trust Controlled Documents Group will alert Groups/Directorates when a document has been published or updated. The IPCT will also bring these documents to the attention of staff via the monthly IPC Bulletins.
It is the responsibility of Clinical Directors and Nurse Directors (or equivalent) to ensure that all relevant aspects of the documents below are being followed in their area(s); how this is achieved is at their discretion. However, it would seem reasonable to suggest that a senior person within each Group/ Directorate reviews the document as a whole to note which aspects of the document are relevant to the wards/ departments/services in the Group and where action is needed to ensure full implementation at a local level. Merely noting any changes made to the documents at the three yearly review may miss the fact that key aspects of the documents have not been implemented previously, especially if services have changed or been reconfigured since the last review.

4.7 The following documents should be reviewed to ensure local implementation when initially published and when re-published after an official review or if otherwise prompted by the IPCT via the IPC Bulletins

- Infection Prevention and Control Standard Precautions, Prevention of Sharps Injuries & Prevention of Exposure to Blood/Body Fluids
- Personal Protective Equipment (PPE) - Levels
- Hand Hygiene Policy
- Aseptic technique
- Infection control policy for the Care of the Deceased Patient
- Outbreak Control Policy
- Infection Control Isolation Precautions and Patient Placement Policy

- Antibiotic prescribing policies a) Antibiotic prescribing guidelines, b) Antibiotic review policy and c) Restricted antibiotic policy
- Linen Policy
- Waste Policy
- Computer Equipment and Screen Decontamination Policy
- Decontamination of Medical Devices, Patient Shared Equipment, Non-medical Equipment and Environmental Fittings Policy
- Commode, Bed and Mattress Cleaning Protocol
- Bladder management and Urinary Catheterisation policy
- Management of Central Venous Access Devices, including PICC lines policy
- Management of Peripheral Venous Access Devices policy
- Protocol for taking blood cultures
- Using Ultrasound Gel – Good Infection Prevention and Control Practice
- Suspected infective diarrhoea Policy
- Norovirus Policy
- *C.difficile* Policy
- MRSA Policy
- CJD Policy
- GRE Policy
- Carbapenemase-producing multi resistant Gram negative bacteria (CPE) Policy
- Multi-resistant Pseudomonas Policy
- Tuberculosis Policy
- Candida auris Policy
- Respiratory Virus Policy
- Seasonal Influenza guidance
- High Consequence Infectious Diseases (HCID) – Respiratory e.g. MERS/Avian Influenza Policy
- High Consequence Infectious Diseases (HCID) – Contact e.g. Ebola/Viral Haemorrhagic Fever Policy
- Anthrax Policy
- Smallpox Policy
- Chickenpox Policy
- Scabies Policy
- Lice, Fleas and Bed Bugs Policy
- Animals and Pets in Hospital Policy
- Management of occupational exposure to blood borne viruses and post-exposure prophylaxis
- Guidelines for the Management of Employees with Infections
- Water Quality Control and Management including Outlet Flushing
- Birthing Pools
- Hydrotherapy Pools
- Drinking Water Coolers
- Ice machines
- Guidelines for completing death certification in respect of MRSA, *C.difficile* and other healthcare associated infections
- Statutory notification of Infectious Diseases and ‘Contamination Events’

4.8 The Trust infection prevention and control agenda and Programme covers all wards/departments/areas/services of the Trust whether acute or community based. All areas should have an identified 'Lead for Infection Prevention and Control'; generally this role will be undertaken by the Nurse Director. Where areas are not covered by a Nurse Director, or where the Nurse Director determines that certain services are particularly specialised, an alternative 'Lead' may be identified; this should be a senior individual from the area concerned e.g. the Lead for Healthcare Governance. The 'Leads for Infection Prevention and Control' will have responsibility for ownership, implementation and review of progress of the Group/Directorate/Department/Service concerned in respect of the IPC Programme and agenda. The DIPC will be notified of the name of this individual.

Examples of areas where a non-Nurse Director Lead may be considered are:

- Clinical Research Facilities
- Community based services
- Discharge Lounge
- Estates
- Facilities
- Laboratory Medicine
- Medical Imaging & Medical Physics
- Occupational Health
- Pharmacy
- Surge Capacity wards/ department

5. Audit and Review

5.1 Review of progress in respect of the IPC Programme will take place as follows:

a. Nurse Directors will complete a Performance Assessment form (Appendix A) on a twice-yearly basis (initial return between 8th and 15th July 2022 and final return between 7th and 21st April 2023) and return this to the DIPC. See also section 4.5e).

b. The Clinical Director(s) (or equivalent) should agree and endorse the quarterly returns. The sections relevant to medical staff should be completed by an appropriate member of the medical staff e.g. the Clinical Director or the Medical IPC Lead(s) for the area(s) concerned.

c. The DIPC will review the completed forms and code Group progress; progress will be reviewed twice-yearly at the IPCT and IPC Committee meetings. The DIPC will also report progress twice-yearly to the Healthcare Governance Committee.

d. Where Progress is coded as:
Purple/Blue/Green/Yellow: No action will be taken; progress will continue to be monitored
Amber: Repeated Amber status will prompt one of the IPCT to meet with the appropriate Nurse Director to discuss the situation
Red: One Red status coding will prompt one of the IPCT to meet with the appropriate Nurse Director to discuss the situation
Two Red status codings will require the Nurse Director to report in person to the Infection Control Committee to explain the situation
The system of coding will be kept under review.

e. A similar process using Appendix B will apply to non-clinical areas (Clinical Research, Discharge Lounge, Estates, Facilities, Laboratory Medicine, Medical Imaging & Medical Physics, Occupational Health, Pharmacy)

f. The Lead IPC Nurse will review progress in relation to the IPCT Programme twice-yearly and report the results to the DIPC using Appendix C. Similarly the DIPC will complete Appendix D on behalf of the Board of Directors, TEG, Chief Nurse's Office and DIPC in respect of strategic and corporate issues.

5.2 NHS Infection Prevention and Control Board Assurance Framework[24.]
A gap analysis against this document is undertaken on a regular basis and kept under review by the IPC Team, IPC Committee and Healthcare Governance Committee; see section 3.3.

5.3 The DIPC will provide data as requested by the Healthcare Governance Team to inform the Trust Integrated Performance Dashboard.

5.4 Audits will be carried out as required within the relevant IPC Accreditation Programme.

For acute based services these include audit of:

- Monthly cleanliness audits
- Monthly hand hygiene audits
- Monthly commode/raised toilet seat audits
- cleanyourhands champion
- Infection Prevention Link Worker
- High Impact Interventions (HII's)
  - HII No 1 – Central Venous Access Devices Care Bundle
  - HII No 2 – Peripheral Venous Access Devices Care Bundle
  - HII No 3 – Renal Dialysis Catheter Care Bundle
  - HII No 4 – Care Bundle to Prevent Surgical Site Infection
  - HII No 5 – Ventilator Associated Pneumonia Care Bundle
  - HII No 6 – Urinary Catheter Care Bundle
  - HII No 7 – Care Bundle to Reduce the Risk from *C.difficile*
  - HII No 8 - Care Bundle to Improve Cleaning and Decontamination of Clinical Equipment
- Standard Precautions
- Covid-19 Safety Audit
- Aseptic Technique
- Mattress Audits – Trolleys and Couches
- Handling & Disposal of Linen Audit
- Antimicrobial Prescribing Audit
- IPC Review Tool
- Dress Code (Uniform and Work Wear) Audit
- Annual Water Outlet Inventory

For community based services, Rehabilitation & Intermediate Care Units these include audit of:

- Monthly cleanliness audits
- Monthly hand hygiene audits
- Monthly commode/raised toilet seat audits
- Infection Prevention Link Worker/Hand Champion
- High Impact Interventions (HII's)
  - HII No 1 – Central Venous Catheter On-Going Care
  - HII No 2 – Peripheral IV Cannula Care Bundle
  - HII No 6 – Urinary Catheter Care Bundle
- Standard Precautions
- Covid-19 Safety Audit
- Aseptic Technique
- Handling & Disposal of Linen Audit
- IPC Review Tool
- Dress Code (Uniform and Work Wear) Audit
- Mattress/couches/Dental/Podiatry chair
- Enteral feeding
- Decontamination of Reusable Medical Devices/Equipment
- Sharps Management
- Healthcare Waste
- HTM 01-05 Dental only

- Laundry Room Facilities
- Food Hygiene & Kitchen

Audits may be added, removed or revised if significant changes become necessary during the year.

5.5 The IPCT will undertake MRSA screening compliance audits in response to clusters of MRSA acquisition detected by the IPCT weekly review of such cases, see section 6.8.

5.6 The Trust, Directorates and IPCT will continue to participate in the actions required in response to the 'Learning from Potentially Avoidable *C.difficile* cases' internal audit undertaken in 2019/20'; see section 3.6.

5.7 The IPCT and Microbiology department will undertake targeted audits of peripheral cannula use and documentation, as appropriate; see section 14.8.

5.8 Audits of peripheral cannula use and documentation will take place in response to clusters of MRSA/MSSA infection. See section 7.33 below.

5.9 The findings of the audits undertaken, as mentioned in sections 5.7 & 5.8, will be reviewed by the IPCT and appropriate actions undertaken. Areas requiring educational input, more frequent audits etc. will be identified and appropriate interventions progressed.

5.10 With the termination of the NHS Safety Thermometer Programme, and the anticipated changes within the NHS contract[8], the Trust will consider which data relating to urinary catheter placement, management, infection and audit will be continue to be collected, how and by whom. It is anticipated the Catheter-Acquired Urinary Tract Infection (CAUTI) Group will continue and data may form part of the Quest assurance scheme; see sections 14.14 to 19 and Section 9.

5.11 The IPCT will review progress in relation to the review and updating of infection prevention and control related polices/guidelines at the bi-monthly JICT meeting. Policies/guidelines will be reviewed at least every three years although more frequent review will be undertaken as necessary.

5.12 The IPCT will consider both hospital based and community based services when writing or updating infection prevention and control related policies/guidelines. This will include reviewing rehabilitation and intermediate care facility care plans to ensure these are consistent with Trust guidelines/policies or, where local variation is required, this is appropriately documented.

5.13 The IPCT will produce, review, approve and ratify infection prevention and control related policies/guidelines as per Trust requirements in this regard.

5.14 Where appropriate, infection prevention and control related polices/guidelines will include an Equality Impact Analysis (EIA). The format of the EIA will vary depending on the document concerned, but will be based on Trust EIA templates. The EIA will generally be undertaken at the time of production/review of the document.

5.15 The IPCT will review the Trust admission 'paperwork' for infection prevention and control related prompts e.g. MRSA or CPE screening, CJD assessment.

There are particular actions/ issues within the above policies/protocols that wards/ departments/services should ensure are taking place:

5.16 All areas should ensure that patients are screened for MRSA as per the MRSA screening protocols within the Trust MRSA Policy, see sections 7.1-3.

5.17 All areas should ensure that patients with *C.difficile* diarrhoea are reviewed each week day. At weekends patients should be reviewed each day or have a management plan in place for this time period; this should include a clinical review should they begin to deteriorate, see section 8.2.

5.18 All areas should ensure that infrequently used water outlets are flushed daily, see section 17.27 below, and this is recorded and available for auditing purposes. The Estates department will continue to review and progress options for delivery and assurance of this activity.

5.19 All areas should ensure that patients who have a peripheral IV cannula *insitu*

a) Have the insertion documented
b) Have the cannula site reviewed at least daily
c) Have appropriate action taken in light of the daily review

as per the Management of peripheral cannula guidelines, see section 14.3.

5.20 All areas should ensure that staff taking blood cultures do so as per the 'How to take a Blood Culture' guidelines

5.21 All areas will ensure that patients are screened for CJD using the questions and process laid out in the Trust 'Creutzfeldt-Jacob Disease and Related Disorders: Safe Working and the Prevention of Infection' policy. This includes patients undergoing both elective and emergency procedures.

6. Surveillance

6.1 The Trust will continue to aim to achieve any healthcare associated infection objectives, as set by NHS Improvement (NHSI), e.g. *C.difficile*, Gram negative bacteraemia etc. and to take a zero tolerance approach to MRSA bacteraemia. The Trust will work towards achieving, the infection prevention and control related requirements within the latest NHS contract[8]

6.2 The Trust will continue to participate in all NHSI Mandatory Surveillance Schemes:

a) MRSA bacteraemia
b) MSSA bacteraemia
c) *C.difficile* diarrhoea in patients 2 years of age or older
d) Wound infections in orthopaedic surgery
e) *E.coli, Klebsiella spp. and Pseudomonas aeruginosa* bacteraemia

6.3 The IPCT will enter data on to the UK Health Security Agency (UKHSA) HCAI Data Capture System

6.4 The DIPC, Operational IPC Doctors and Chief Nurse's Office will continue to develop systems to optimise the input of data into the HCAI Data Capture System in the absence of those who routinely do so.

6.5 The Trust will investigate, and where appropriate participate in, other HCAI related NHSI/CQUIN objectives/modules as and when these are published.

6.6 The IPCT will continue to use the bespoke Infection Control surveillance (ICS) system and to update and optimise the ICS system as and when necessary.

6.7 The IPCT will, in addition to the mandatory surveillance detailed in section 6.2, continue to undertake surveillance of bacteraemia caused by Glycopeptide resistant enterococcus (GRE), Extended Spectrum Beta–lactamase (ESBL) producing *E.coli* and respiratory isolates of *Pseudomonas species* in high-risk units.

6.8 Each week the IPCT will review a 12 week rolling summary of all a) Hospital Onset *C.difficile* episodes, b) Hospital Onset MSSA/MRSA bacteraemia and c) MRSA acquisitions to help identify clusters of infection/colonisation at an early stage and enable pre-emptive action to be taken.

6.9 The IPCT will continue to produce the monthly IPC Bulletin. This includes important infection prevention and control messages and updates and a summary of MRSA colonisation/infection/bacteraemia, MSSA bacteraemia and *C.difficile* diarrhoea data. This will be sent out to all General Managers, Clinical & Nurse Directors, Medical IPC Leads, Deputy Nurse Directors, Matrons, Ward Managers, Lead Nurses, the IPCT and the Central Nursing and Medical Director's Offices, see also section 2.5. The Team will continue

to investigate new/novel formats and ideas to include in the Bulletin to help staff engagement, increase knowledge and optimise practice e.g. video links, examples of good/poor practice

6.10 The IPCT (acute and community based) will undertake clinical reviews of patients as appropriate for the organisms concerned, the unit where the patient is being cared for and the clinical situation of the patient. Reviews may involve a) a Team member visiting the ward/area/facility in person, b) a telephone conversation, c) virtual review using information available from multiple electronic sources d) advice being added to the whiteboard, or e) a combination of the above, as appropriate for the situation concerned. The frequencies the Team aspires to work to can be found on the IPC website; these are reviewed on an on-going basis.

6.11 When clusters/outbreaks of infection occur within the Trust Rehabilitation and Intermediate Care facilities, IPCT members provide appropriate on-site and off-site support in detecting, controlling and managing the incident. The Team will continue to provide this support, including as much on-site presence as clinically appropriate.

6.12 Clusters of MRSA and *C.difficile* diarrhoea will be investigated as appropriate by the IPCT; see sections 7.22-23 and 8.12-17 below. Bacteraemia episodes caused by organisms other than MRSA or non-bacteraemia infections/clusters caused by any organism may also be investigated as determined by the IPCT. A summary of these episodes/ clusters will be recorded, as will the results of any reviews undertaken and actions advised. The format of these summaries will differ depending on the episode/cluster.

6.13 An escalation process has been agreed, and will be enacted, for occasions where the reviews undertaken, and the advice given, by the IPCT are not followed by satisfactory improvement and progress.

6.14 The IPCT will continue to work with the Chief Nurse's Office to progress the Trust infection surveillance strategy, in particular the surveillance of surgical site infection (SSI). This will include possible expansion of the current surveillance team, as resources permit.

6.15 The IPCT will work with the Chief Nurse's Office to prioritise activities within SSI surveillance based on known or suspected infection rates/risks, within the resources made available to the Team.

6.16 The modules where continuous surveillance will be undertaken during 2022/23 are a) hip arthroplasty, b) knee arthroplasty and c) cranial surgery. The IPCT will also undertake SSI surveillance of other surgical wounds, on a rotational, rather than a continuous, basis

6.17 The IPCT Information Analyst will continue to review, optimise and rationalise the various databases used to collect SSI data

6.18 Information Services and IPC Teams will continue to work together to optimise the downloading of data for the Trust Nursing and Midwifery Quality Dashboard within the Trust Quest Assurance Scheme.

6.19 The Infection Control Operational Group (ICOG) will meet at least bi-monthly to review progress in respect of key infection prevention and control issues and ensure progress is being made and maintained. Membership of this Group consists of the DIPC, Lead Nurse for Quality and Practice Development, Lead IPC Nurse, Antibiotic Pharmacist, Facilities representative, Estates representative and the Operational IPC Doctors

6.20 The IPCT will continually be alert to and look out for infection prevention and control initiatives emanating from the DH and other professional bodies[11].

6.21 The IPCT will continue to investigate possible options for reconfiguring the Team workload to increase the amount of proactive activity undertaken. Examples of such activity would be Team members working for periods on certain wards/departments, face-to-face education and training, service

development, new initiatives etc. The implications for the reactive work undertaken by the team will need to be considered. See section 6.22.

6.22 The IPCT will keep under review the infection prevention and control issues and risks that will arise from the reconfiguration/re-instigation of services during and after the Covid-19 pandemic.

6.23 Trust senior management, the IPCT and the Laboratory Medicine Directorate will continue to work together to investigate the impact of 'real-time' and '24 hour' sample processing and result reporting on colleagues across the Trust.

7. *Staphylococcus aureus* (MRSA and MSSA)

MRSA

Screening for MRSA:

7.1 The Trust protocols for screening reflect DH requirements, taking into account local experience. The DH requirements regarding MRSA screening were updated in 2014[12], allowing trusts more freedom in determining their own screening protocols based on risk assessments and local experience. The STH protocols exceed the current DH requirements.

7.2 All departments will ensure that patients are screened for MRSA as per these STH protocols. Any changes to these protocols should be agreed with the IPCT. See Trust Guidelines for the Control of MRSA.

7.3 Audit of compliance with these protocols will be undertaken by the IPCT; see Audit Section above.

7.4 The IPCT and Obstetrics Directorate will continue to implement the updated, MRSA screening protocols developed in 2021/22.

Managing patients colonised or infected with MRSA

7.5 The Trust has MRSA Nursing Care Guidelines/electronic Nursing Care plans colonised or infected with MRSA. These will be used to manage all patients colonised/infected with MRSA. Should any local variation to this pathway be necessary, this should be agreed with the IPCT

7.6 Patients found to be colonised or infected with MRSA will receive appropriate topical treatment, started within 24 hours of the IPCT advising clinical staff of the treatment required (including weekends and bank holidays) and be applied thoroughly and consistently

7.7 The IPCT will continue to develop and implement MRSA management pathways covering both the acute and community sectors of a patient's care

7.8 The IPCT will continue to work with primary care colleagues to optimise decolonising patients in the community, where this is appropriate

7.9 In agreement with Sheffield CCG, the Trust will continue to implement the pathway for managing patients found to have MRSA at pre-assessment to ensure the risk of infection is reduced to a minimum in these patients and where possible their treatment continues without unnecessary delay.

7.10 Patients with a history of MRSA who require quinolone (usually ciprofloxacin) therapy should have topical MRSA therapy until 48 hours after the quinolone has been stopped.

7.11 Patients with MRSA should preferably be cared for in single rooms. If this is not possible, the Infection Control Patient Placement guidelines will be followed using a risk assessment approach to each particular situation. A review of how such risk assessments are carried out and documented will take place during 2022/23.

7.12 A Datix incident form will be completed whenever a single room is required for IPC purposes and is unavailable

MRSA Communication

7.13 Where a patient colonised/infected with MRSA is being transferred to, between or within a healthcare facility, their MRSA status will be communicated to the receiving party by the staff in the department sending the patient. This includes patients going to radiology, operating theatre etc.

7.14 MRSA results will be communicated by the microbiology department to the IPCT and clinical staff in a timely manner as per agreed protocols

7.15 The IPCT will communicate MRSA results, advice and paperwork to clinical staff in a timely manner. Discussions and the patient status will be clearly documented in patient and IPCT records, as appropriate.

7.16 The IPCT will continue to work with colleagues within the acute, community and primary care sectors to communicate information and make referrals between the Teams. The systems take into account the need for confidentiality and information security.

7.17 The IPCT will work with primary care colleagues to optimise communication of MRSA results for patients discharged with (or with a history of) MRSA colonisation or infection. This includes patients whose MRSA status was known to the IPCT prior to discharge and those where this comes to light after discharge. In this later situation, this will include sending a letter to both the patient and the patient's GP informing them of the results and the need for an assessment to be made to determine appropriate future management.

Management of MRSA and intravenous lines:

Patients colonised with MRSA have an increased risk of bacteraemia if they have a peripheral, arterial or central intravenous catheter *insitu*.

7.18 Such lines must be managed as per the Trust Peripheral and Central Intravenous Line Care guidelines and DH Care Bundles at all times

7.19 See 'Management of Peripheral and Central intravenous cannulae' Section below for MRSA screening of patients having central lines inserted and for topical therapy for patients with central lines i*nsitu* who also have MRSA.

MRSA target

7.20 The target set nationally is that there should be no Trust Hospital Onset cases of MRSA bacteraemia.

7.21 The Trust and Sheffield CCG will therefore continue to take a zero tolerance approach to episodes of avoidable MRSA bacteraemia and appropriately investigate each episode.

Management of episodes of MRSA bacteraemia and MRSA clusters

7.22 Episodes of MRSA bacteraemia will be handled as Clinical Incidents and an appropriate review held using the DH Post Infection Review (PIR) tool or a suitable alternative:

- The IPCT will undertake an initial review and organise further meetings with appropriate clinicians as necessary. These meetings are likely to involve one of the IPC Doctors and IPC Nurses plus a senior Nurse from the area looking after the patient and a senior clinician, preferably the patient's consultant or GP. Participation at these meetings is strongly supported by the Chief Nurse and Medical Director.
- Initial meetings/discussions should be held as soon as possible (within 48 hours) to ensure any urgent actions required are determined and undertaken. Follow-up meetings should take place in an appropriate time-frame for the situation concerned.

- Any actions identified should be acted upon within an agreed time frame. On the rare occasions where satisfactory improvement/progress does not occur, the escalation process mentioned in section 6.13 will be followed.
- A report of the meeting should be sent to the DIPC and be reviewed by the IPCT as regards whether wider action across the Trust is required and to share learning in a constructive manner.
- The Clinical Commissioning Group will be informed of episodes of MRSA bacteraemia, as they occur, and of the results of any reviews undertaken
- Where required by the UKHSA, PIR results will be uploaded onto the UKHSA HCAI database

7.23 Clusters of hospital acquired MRSA infections or carriage will be logged by ward and the data reviewed at least weekly. Wards will be coded as Red if 4 or more new cases occur within an 8 week rolling period or if 2 cases occur within a 7 day rolling period. Wards will be coded as Amber if 2 or 3 new cases occur within an 8 week rolling period.

MRSA staff screening and management

7.24 The IPCT and Occupational Health staff will continue to work together to implement the Trust policy for the MRSA screening of staff and the management of staff found to be colonised or infected with MRSA.

MSSA

MSSA is carried by approximately 30% of the population and most infections are due to organisms already carried by the patient, although cross infection from other patients and staff can also occur. Preventing infection with MSSA therefore requires a variety of interventions many already mentioned elsewhere in this document. However, all the planned actions/interventions are summarised in this Section to enable a complete picture to be gained of the activities designed to combat infection with this organism.

Optimising Infection Prevention and Control practice

7.25 All inpatient and operating theatre areas will gain and maintain IPC Accreditation. This includes compliance with the aseptic technique audit tool, hand hygiene audit tool and peripheral IV cannula care bundle; see Section 1

Monitoring and Review

7.26 The Medical Microbiology and Infectious Diseases staff will work together to undertake clinical reviews of patients with *Staphylococcus aureus* (MSSA & MRSA) bacteraemia. Clinical management of patients with *S. aureus* bacteraemia is discussed at a weekly Medical Microbiology and Infectious Diseases MDT.

7.27 The likely source of cases of Hospital Onset MSSA bacteraemia episodes will be determined on a monthly basis by the IPC Doctors e.g. cannula, wounds Where trends or patterns are noted, the IPCT will discuss this with appropriate senior nursing and medical staff for the areas concerned and any necessary actions agreed. Any learning points will be communicated by the IPC Doctors to the IPC Nurses to enable wider distribution as appropriate.

7.28 Cases of Hospital Onset MSSA bacteraemia will be subject to a root cause analysis at the discretion of the responsible Directorate. The IPC Doctor may also suggest such reviews are undertaken based on the circumstances of the case(s) and any trends noted in the area concerned.

7.29 MSSA bacteraemia is one of the indicators included on the Trust Nursing and Midwifery Dashboard within the Trust Quest Assurance Scheme; this is to help identify areas having excess cases to enable actions to be taken to prevent further episodes.

7.30 In the absence of an NHSI objective, the Trust will aim to achieve a rate of MSSA Hospital Onset bacteraemia which would place the Trust amongst the top eight best performing trusts in relation to other comparable large acute teaching hospital trusts in England[30].

7.31 In respect of 7.30: The Trust will aim for an in-house target of 63 or less episodes of Hospital Onset MSSA bacteraemia during 2022/23. This will be amended as necessary should an NHSI objective be forthcoming.

Peripheral intravenous access device care

7.32 During 2021/22, digitalised cannula charts on the e-whiteboard were designed and testing completed. During 2022/23 work will be undertaken to finalise the training resources to enable the piloting and implementation phases of the project to commence. Once this is complete and embedded into practice the aim is that all wards/departments/services should have fully completed electronic peripheral intravenous access device charts for 100% of their patients with a device *in situ*. Alternative documentation pathways are acceptable, as long as these are standardised, have at least the same level of detail as the electronic charts, are readily available and are equally well completed.

7.33 The IPCT will undertake audits of peripheral venous access device use and documentation in response to clusters of MRSA and MSSA infection; See sections 5.7 to 5.9 and 14.8.

Central Lines

7.34 The patient safety programme to reduce central venous catheter infections will continue in General, Neurosciences and Cardiac Critical Care units

7.35 Haematology will continue to undertake peri-insertion decolonisation treatment to reduce the rate of central line related sepsis - see section 14.11

Wound infections

7.36 The mandatory surveillance of surgical site infections within the Orthopaedic Directorate will continue – see section 6.2d).

7.37 The voluntary surveillance of cranial surgery will continue; see section 6.16

7.38 Surgical site surveillance (SSI) of other procedures e.g. caesarean sections, cardiothoracic surgery will be considered as resources allow. Prioritisation of the resource will be made by ICOG in conjunction with the SSI Team

Directorate specific actions

7.39 The IPCT will continually review all cases of MSSA bacteraemia and determine if there are Directorates where specific action needs to be taken. Appropriate discussions and action plans will be developed with these areas.

7.40 For surgical directorates the issues likely to be reviewed and addressed where necessary are:

- Standards of behaviour conduct and clinical practice within the theatre complex
- Unnecessary clutter within the operating theatre
- Ventilation parameters and air quality within the theatre
- Antibiotic prophylaxis
- Skin preparation

- Strict control of entry of personnel into the theatre
- Learning from colleagues in other similar trusts with lower rates of MSSA bacteraemia
- Pre-operative screening for MSSA carriage and treatment where positive
- Pre-emptive treatment for MSSA carriage for emergency cases whilst awaiting admission swab results
- Practicalities of ensuring decolonisation treatment is prescribed and administered promptly
- Post-operative wound care protocol
- Wound closure protocol
- Surgical site infection surveillance

7.41 For non-surgical directorates the issues likely to be reviewed and addressed where necessary are:

- Care of peripheral intravenous access devices (PVADs), in particular the documentation of insertion and on-going review – aim for 100% of devices in place to have fully completed charts. Alternative documentation pathways are acceptable, as long as these are standardised, have at least the same level of detail as the charts, are readily available and are equally well completed.
- The insertion location of any PVADs implicated in an MSSA bacteraemia i.e. possible association with any particular clinical area or in ambulance prior to admission
- Changing PVADs if patients admitted from elsewhere

Screening for MSSA:

7.42 In some clinical situations MSSA screening may be part of an overall MSSA action plan. The IPCT will work with appropriate Directorates to determine if MSSA screening may be of benefit and options for progressing this.

7.43 For 2022/23, the IPCT and Renal Directorate will continue to MSSA screen certain patient groups within this area and review its impact.

Universal decolonisation:

7.44 Following the introduction in 2019 of 'universal decolonisation' of medical inpatients on high risk wards, the IPCT and clinical staff will continue to work towards ensuring its effective implementation, particularly the application of the topical decolonisation. The intervention was evaluated in 2021/22 with feedback from the target wards and assessment of absolute numbers of *S. aureus* bacteraemias; a decision to continue with decolonisation in 2022/23 was made. The IPCT will continue to monitor and evaluate the impact of the introduction, which is aimed at reducing infections caused by key organisms, in particular MSSA

8. *Clostridioides difficile*

C.difficile Nursing Care Guidelines/Electronic Nursing Care Plans & Clinical Review:

The Trust has *C.difficile* Nursing Care Guidelines/electronic Nursing Care plans for managing patients with *C.difficile.* These take into account the recommendations in the DH '*C.difficile* Infection; How to Deal with the Problem' document[13]

8.1 These Guidelines/Plans will be used to manage all patients with *C.difficile* diarrhoea. Should any local variation to this pathway be necessary, this should be agreed with the IPCT

8.2 All areas should ensure that patients with *C.difficile* diarrhoea are reviewed each week-day. At weekends patients should be reviewed each day or have a management plan in place for this time period; this should include a clinical review should they begin to deteriorate, see section 5.17.

8.3 The IPCT will, in conjunction with medical microbiology staff, undertake a weekly review of inpatients with *C.difficile* The nature of the review will be determined by a number of factors, including whether the patient has *C.difficile* infection or carriage, clinical progress and when the *C.difficile* infection/carriage was diagnosed

Patient Placement

8.4 Unless an infective cause has been excluded, patients with diarrhoea should preferably be nursed in single rooms. If this is not possible, the IPC Isolation Precautions and Patient Placement guidelines will be followed using a risk assessment approach for each particular situation.

8.5 A review of how such risk assessments are carried out and documented will take place during 2022/23.

8.6 A Datix incident form will be completed whenever a single room is required and is unavailable

Communication

8.7 Where a patient infected with *C.difficile* is being transferred to, between or within a healthcare facility, their *C.difficile* status will be communicated to the receiving party by the staff in the department sending the patient. This includes patients going to radiology, operating theatre etc.

8.8 *C.difficile* results will be communicated by the microbiology department to the IPCT and or clinical staff in a timely manner as per agreed protocols

8.9 IPC staff will communicate *C.difficile* results, advice and paperwork to clinical staff in a timely manner.

Cleaning and environment issues

8.10 Details of general cleaning issues can be found in Section 17

8.11 The following are specific initiatives aimed at preventing and controlling *C.difficile*. These will require input and co-operation from a range of professionals including nursing, managerial and domestic services staff.

a) Following the identification of a patient with *C.difficile* in a bay, the area(s) to be cleaned will be the patient's bed space and, based on a risk assessment of the situation, may include the rest of the bay, the ward toilets, commodes, seat raisers, sluice and nurse's station
b) Staff should be particularly vigilant when managing cases caused by the O27 strain and wherever possible hydrogen peroxide misting of the areas listed in section 8.11a) should be carried out. It is recognised that this may not always be possible.
c) The rolling programme of deep cleaning and hydrogen peroxide misting of wards and departments will continue. The frequency of this will be determined by the risk of *C.difficile* contamination, any clusters of cases associated with the area and bed pressure/capacity issues. The aim is to clean all wards at least once a year, and certain high risk wards/ departments, two to three times a year.

d) Routine cleaning of the environment and patient equipment will be undertaken using a sporicidal detergent/disinfectant product; Tristel Fuse
e) The programme of radiator and grill cover removal and cleaning, which takes place on a 12 month rolling programme as appropriate for the campus concerned, will continue.
f) The IPCT will continue to require commode inspections to be undertaken as part of the IPC Accreditation Programme. More frequent inspections may be required should concerns be noted during Accreditation audits or at reviews undertaken by wards or the IPCT in response to individual, or clusters of, *C.difficile* cases

Management of *C. difficile* clusters

8.12 Episodes of *C.difficile* diarrhoea will be logged by ward and the data reviewed at least every 2-3 days. Wards will be coded as Red if 4 or more new cases occur within a 28 day rolling period or if 2 cases occur within a 7 day rolling period. Wards will be coded as Amber if 2 or 3 new cases occur within a 28 day rolling period. These Red or Amber alerts may convert to a Purple alert – this is where 3 cases are determined to be caused by the same ribotype.

8.13 Samples from *C.difficile* cases will be sent for ribotyping on an on-going basis to aid cluster detection, investigation and management

8.14 Wards coded as Red or Amber will be reviewed by the IPCT in respect of ward cleanliness, infection prevention and control and hand hygiene. An e-mail summarising the audit findings will be sent by the IPCT to staff responsible for the areas concerned, as well as to the DIPC and the Chief Nurse's Office. Follow up audits will be undertaken by the IPCT on a risk assessment basis.

8.15 On the rare occasions where these reviews are not followed by satisfactory improvement and progress, the escalation process laid out in in section 6.13 will be used.

8.16 Purple *C.difficile* clusters will be reviewed and monitored via the Trust's Serious Incidents process. Where appropriate these incidents will be escalated to the CCG. The definitions used for this process have been agreed and are based on those recommended in the DH '*C.difficile* Infection; How to handle the problem[13]' document.

8.17 On occasion clusters of *C.difficile* infection and carriage may be noted that do not strictly fulfil the above criteria. In these circumstances, an 'Unofficial' *C.difficile* alert may be logged and the IPCT will determine the appropriate response dependent on the exact nature of the 'cluster'. The response may be to undertake one set of audits or to wait for the results of strain typing before taking further actions. The 'Unofficial' alerts may be converted to 'Amber' alerts if the results indicate cross infection or if repeated audits show clinical practice is not improving.

Other issues i.e. targets, testing, monitoring

8.18 The Trust will aim to achieve the national assigned STH *C.difficile* target/objective. Currently this includes both Hospital Onset episodes of *C.difficile* and Community Onset episodes, where the patient has been an STH in-patient within the 28 days prior to the date of the diagnostic sample. The nationally determined *C.difficile* objectives for 2022/23 are currently awaited and the STH Programme will be updated as appropriate, once this is published. In the absence of a NHSI objective the Trust will roll-over the national 2021/22 *C.difficile* objective.

8.19 The Microbiology department will continue to provide a 7 day a week *C.difficile* testing service

8.20 The IPC Doctors currently review all Hospital Onset episodes of *C.difficile.* Where indicated, the IPC Doctors request that an in-depth root cause analysis (RCA) be undertaken by the clinical teams, using an in-house RCA tool based on the national *C.difficile* guidance[19]. The above process will be reviewed once the 2022/23 objective, noted in section 8.18, is published.

8.21 Where directorate level RCAs are requested by the IPC Doctors, this should be returned to the IPC Doctors to enable, where appropriate, wider lessons to be learnt.

8.22 Clinical teams should discuss the results of the aforementioned RCAs at their healthcare governance and risk meetings and the observations, discussions plus any actions required should be noted in the meeting notes. Follow up of any actions required should be discussed and noted at following meetings.

8.23 Directorates should follow the Trust governance processes for responding to *C.difficile* related incidents, Datixed events etc., see section 3.6

8.24 Currently, an assessment as to whether each Hospital Onset *C.difficile* episode was Potentially Avoidable or Unavoidable (Lapse of Care identified or No Lapse of Care identified) is made by the appropriate IPC Doctor for the area concerned. The reviews, RCAs and feedback outlined in sections 8.20 to 8.22 are key to this assessment. These assessments are forwarded to Sheffield CCG on a quarterly basis and used as a key indicator within the CCG's performance management of the Trust

8.25 Currently, the IPC Doctor's assessment as to whether each Hospital Onset *C.difficile* episode was Potentially Avoidable or Unavoidable (Lapse of Care or No Lapse of Care identified), is communicated to senior nursing and medical colleagues responsible for the area concerned and copied to the IPCT.

8.26 Currently, Hospital Onset *C.difficile* episodes deemed to be Potentially Avoidable are considered 'incidents' and therefore

a) Should be entered on to the Datix system by the clinical teams
b) Clinical teams should make an assessment as to whether Duty of Candour applies for each such episode and act accordingly
c) Where the patient dies and *C.difficile* is included in part 1 of the death certificate, clinical teams should refer the episode to the Trust Serious Incident Committee for consideration; further action will depend on the Committee's conclusions

8.27 Currently, the IPC Doctors include the governance co-ordinators in those copied into the e-mail they send to clinicians colleagues outlining their assessment of whether an episode is Potentially Avoidable or Unavoidable

8.28 The process detailed in sections 8.24 to 8.27 will be reviewed during the year following publication of the NHS contract[8]

8.29 A monthly e-mail will be sent out summarising the *C.difficile* situation for that month and the overall position for the reporting year. This will be sent to Clinical Directors, Medical IPC Leads, Nurse Directors, Matrons, Deputy Nurse Directors, the Chief Executive's Office, the Medical Director's Office, the Chief Nurse's Office and the IPCT.

9. Gram Negative organisms & Neonatal Unit

Pseudomonas

9.1 As recommended by the DH[14], the Trust has a Water Safety Plan which covers various aspects of water quality including managing the risk of *Pseudomonas spp*. This Plan is overseen by the Water Quality Steering Group. See section 17.30 for details.

9.2 The DIPC will continue to monitor episodes of *Pseudomonas* spp. bacteraemia trust-wide plus pseudomonal respiratory infections on critical

care units. This data will be used to determine if unusual patterns of infection are occurring and if action needs to be taken in any particular area.

Resistant Gram negative organisms

9.3 The IPCT will continue to progress implementation of the Trust policy for the control of carbapenemase-producing multi-resistant Gram negative bacteria based on UK Health Security Agency (UKHSA) guidance[15]. These organisms are known as carbapenemase producing enterobacteriacae (CPEs).

9.4 Admission screening for patients 'at-risk' of being colonised or infected with CPEs, as defined in the document referred to in section 9.3, will continue to be undertaken across the Trust. The IPCT will continue to highlight this requirement to clinical teams during the coming year, in particular those who regularly receive patients from high-risk areas.

9.5 Enhanced screening for CPEs was introduced late in the 2021/22 year in line with the updated national CPE guidance. This programme will continue to be rolled out in 2022/23 and a review undertaken of the results obtained.

9.6 CPEs will be a standing agenda item for IPC Committee and Team meetings

9.7 The Board will be kept appropriately informed in respect of CPEs by the Chief Nurse and by the DIPC; data will be included on a quarterly basis in the infection prevention and control report produced for the Board.

Surveillance

9.8 The Trust will continue to participate in the UKHSA HCAI scheme for surveillance of Gram negative bacteraemia; see section 6.2

9.9 The Trust will aim to achieve the national assigned *E.coli*, *Klebsiella species* and *Pseudomonas aeruginosa* targets/objectives. Currently these include both Hospital Onset episodes of bacteraemia caused by these organisms and Community Onset episodes, where the patient has been an STH in-patient within the 28 days prior to the date of the diagnostic sample. The nationally determined objectives for 2022/23 are currently awaited and the STH Programme will be updated as appropriate, once this is published. In the absence of a NHSI objective the Trust will roll-over the national 2021/22 objectives.

Reducing Gram negative bacteraemia

In 2017, a working group was convened locally to oversee actions within Sheffield to reduce Gram negative bacteraemia. A range of Gram negative organisms can cause bacteraemia but the majority of such infections are caused by *E.coli*. The working group has therefore concentrated on *E.coli* infections and is known as the '*E.coli* Steering Group'. However, many of the actions taken to reduce *E.coli* infection will also have an effect on other Gram negative organisms.

In 2019, the DH determined that the regional Integrated Care Systems (ICSs) should be primarily responsible for overseeing the Gram negative bacteraemia reduction programme. This recognises the fact that this objective requires actions across all public health, social care and healthcare sectors.

The Sheffield *E.coli* Steering Group was suspended during 2020/21 due to the Covid-19 pandemic. This has since restarted, with the first meeting taking place in October 2021. It is anticipated that the Trust will work with the regional and local ICS groups to develop and, where appropriate, implement initiatives designed to reduce infections caused by Gram negative organisms.

9.10 The IPCT will continue to develop and oversee the Trust programme of activities designed to reduce Gram negative bacteraemia

9.11 The IPCT will continue to collate and review local data and risk factors to determine the focus of the Trust programme of activities for the coming year; taking into account any Gram negative bacteraemia reduction objective within the NHS standard contract[8]; see sections 6.1 & 9.9.

9.12 The IPCT will liaise with primary care colleagues with regard to any actions being undertaken in the community. Previously these included a) optimising the signposting within the Sheffield primary care formulary for urinary tract infection (UTI), b) reinforcing and providing information to the public on UTI reduction, c) exploring the possibility of undertaking further surveillance on urinary sources of infection; this would include continence status and social care input to understand if these are contributing factors in UTI development in primary care and d) collaborating with the ICS in any *E coli* bacteraemia reduction plans.

9.13 Trust actions will include a) continuing to support and review progress of community nursing catheter management including the pilot of a community catheter passport and a re-audit of catheter management undertaken within community nursing (last performed June 2018), b) undertaking an in depth review of intra-abdominal and hepatobiliary related gram-negative blood stream infections, to identify themes, trends and risk factors and c) continuing to review overall Gram negative bacteraemia data to identify any themes, trends and risk factors that might be amenable to intervention and d) continuing to support the Geriatric and Stoke Medicine Directorate in optimising hydration for their patients,

SCBU/Neonatal Unit

9.14 The IPCT and neonatal unit staff will continue to implement the national guidance on managing outbreaks of Gram negative infection in neonatal units[16]and where necessary make amendments to how the Trust prevents and/or controls these situations.

9.15 The IPCT and neonatal staff will continue to monitor the detection of isolates of *Staphylococcus capitis* within the Neonatal Unit and take appropriate action in respect to possible clusters of infection as per UKHSA guidance[29].

10. Covid-19, Influenza and Other Respiratory Viruses

10.1 The Trust will work with local, regional and national colleagues and organisations to safely detect, diagnose and manage patients suspected or confirmed as being infected with SARS Cov-2, i.e.Covid-19 infection.

10.2 The Trust will aim to follow national Covid-19 polices, guidelines and recommendations, wherever possible[20].

10.3 The Trust Covid-19 policies, guidelines, information and advice will be available on the Trust intranet site and Microguide under the ‘Coronavirus Covid-19’ banner.

10.4 The response to the pandemic is necessarily multi-faceted and constantly evolving and therefore national and local polices, guidelines, action plans etc. are likely to change over time. Trust Management and Expert Groups will constantly keep these issues under review.

10.5 All Groups, Directorates and Departments (both clinical and non-clinical) will ensure that Trust guidance and recommendations are followed as appropriate for their areas.

10.6 The key issues and topics are listed below:

- Pathways for admission, placement, treatment and discharge of patients with and without Covid-19
- Protocols and practices within Covid +ve cohort wards/areas/rooms (Red), Covid minimised wards/ areas (Blue) and Others (Grey) – as the pandemic evolves throughout the year the terminology for such area may change
- Personal Protective Equipment (PPE) – staff, patients and visitors
    - Which items of PPE to wear and in which situations including areas where aerosol generating procedures are taking place
    - How to don and doff PPE
    - Fit-testing and training
    - Securing PPE supplies and determining new/novel suppliers
    - Protocols for decontaminating items of PPE
- Covid-19 testing protocols for patients, staff and households, including the staff PCR drive through facility and the role of LFTs
- Developing and delivering Covid-19 testing capacity
- Managing the infection prevention and control management of individual patients and any patients and staff exposed to these cases
- Detection and management of clusters and outbreaks
- Reviewing and responding to cases of nosocomial Covid infection
- Optimising the infection prevention and control aspects of clinical and non-clinical environments – space, ventilation etc.
- Human resources issues relating to staff illness, shielding, self-isolation and caring for dependants
- Visitor and accompanying person protocols
- Determining services and activities to stop at various stages of the pandemic and when and how to re-start - clinical, teaching, training, other etc.
- Workforce reallocation
- Restarting as much teaching and training as possible
- Promoting and optimising staff and patient Covid vaccination
- Covid-19 treatment and vaccination studies

This list in is no way exhaustive and the brief descriptions above hide many complicated situations and solutions that have involved a huge amount of time and effort to address and resolve; much of the work is of course on-going given the constantly evolving situation .

10.7 Planning for influenza will continue to be incorporated into the wider strategy for winter planning and form part of the work of the Outbreak and Systems Resilience Group (OSRG).

10.8 The OSRG will receive a report on staff uptake of influenza immunisation during 2022/23. An action plan will be developed to continue to improve uptake rates during 2022/23.

10.9 The Trust will continue to provide influenza immunisation for certain in-patient groups

10.10 Directorates will participate in the planning and implementation of the agreed influenza immunisation strategy for both staff and patients

10.11 The Pandemic Influenza Guidance will be kept under review and updated as appropriate; this will be led by the Emergency Planning Team.

10.12 The Seasonal Influenza Guidance will be reviewed and updated, taking account of any updated DH advice, in time for the anticipated 2022/23 influenza season i.e. by the end of October. This may need to change as the season progresses or further advice is forthcoming.

10.13 Guidance on the management of other respiratory viruses in units with high-risk patients e.g. haematology, renal will continue to be developed. This will be led by the consultant Virologists in conjunction with the IPCT and the clinicians for the areas concerned

10.14 In addition to any PPE requirements required due to Covid-19, the Haematology department will continue to undertake the 'universal' wearing of masks by staff/visitors etc. in contact with certain particularly vulnerable patient groups within their Directorate.

10.15 The IPCT will continue to work with community based staff to implement the recommendations for when masks are required in the various clinical scenarios faced by staff in these areas.

10.16 The Virology department will continue to work with clinical colleagues to optimise the use of near-patient/point of care (POC) testing for influenza in selected admissions departments for the 2022/23 season; this will include on-going review of the networking of POC test results.

10.17 The Virology department will continue to work with the IPCT to progress, and where possible optimise, the communication of respiratory virus sample results to the IPCT to facilitate the infection prevention and control management of these infections.

10.18 The Virology department will provide weekly influenza figures during the influenza season, which, when appropriate, will be displayed on the Trust intranet page. This information is provided to staff so they are aware of influenza activity and can ensure they are up to date with influenza protocols and are vigilant in looking out for cases of this infection

10.19 The IPCT will keep the respiratory virus infection prevention and control patient placement algorithms under review

10.20 The OSRG, in conjunction with the Virology department, IPCT, Communications department and other clinical colleagues will consider, and where agreed implement, the following as options for improving respiratory virus prevention and control:

- Sending respiratory virus patient information leaflets to patients coming for an outpatient appointment
- Organising pharmacy prescriptions to include messages relating to influenza vaccine during relevant months of the year
- Widespread display of 'Catch it, Kill it, Bin it' posters across the Trust
- Appropriate poster displays at ward entrances
- Updating 'telephone hold on' messages to include relevant information playback regarding respiratory viruses
- Playback message on detecting people entering Trust premises (as used in nearby hospitals)

10.21 The completed staff swabbing initiative, undertaken in 2019 plus experienced gained during the Covid pandemic, will inform STH policy regarding the management of staff with respiratory viral infections.

10.22 The Virology department, in conjunction with the IPCT, Infectious Disease department and other clinical colleagues will remain vigilant for measles cases in, or presenting to, the Trust. The Trust will continue to provide in house testing for measles and, where appropriate, risk-assess cases of illnesses presenting with a rash.

11. Norovirus

11.1 Planning for norovirus will continue to be incorporated into the wider strategy for winter planning and form part of the work of the Outbreak and Systems Resilience Group (OSRG).

11.2 The OSRG will take account of any lessons learnt in managing norovirus during the previous year, when planning for the forthcoming norovirus season.
11.3 The Trust will take account of UK Health Security Agency norovirus[17] management advice.
11.4 The Virology department will provide weekly norovirus figures during the norovirus season, which will, when appropriate, be displayed on the Trust intranet page. This information is provided to staff so they are aware of norovirus activity and can ensure they are up to date with norovirus protocols and are vigilant in looking out for cases of this infection
11.5 A Red clean will be undertaken of rooms and bays where patients with norovirus have been cared for. On occasions this may not be possible and the IPCT should be consulted as to whether an ultra-violet clean (UVc) may be agreed as an alternative.
11.6 The Virology department will continue to investigate the possibility of introducing Point of Care testing for Norovirus on key wards/departments; taking into account the impact of such methodology on other key teams e.g. IPCT

12. Novel pathogens and High Consequence Infectious Diseases (HCID) pathogens

12.1 The Trust will keep under review the current STH plans for safely detecting, diagnosing and managing patients suspected or confirmed as being infected with High Consequence Infectious Diseases (HCID) pathogens (both respiratory and contact spread pathogens). The Trust plans will be based on UK Health Security Agency (UKHSA) advice[18].
12.3 The Trust will continue to work towards providing the personal protective equipment (PPE) recommended by new national guidance for caring for patients with suspected HCID pathogens.
12.4 The Trust will work towards training appropriate staff in the use of the aforementioned PPE and its donning and doffing.
12.5 The Trust will continue to implement the policy for safely detecting, diagnosing and managing patients suspected or confirmed as being colonised/infected with *Candida auris*

13. Hand Hygiene/Dress Code

13.1 The Board of Directors, TEG, Chief Nurse's Office, DIPC, IPCT and staff at all levels within the Trust will continue to promote best practice in respect of hand hygiene, including via the IPC Accreditation Programme
13.2 Hand hygiene audits will be undertaken as per the IPC Accreditation Programme.
13.3 Wards/departments/services will ensure that patients have access to appropriate hand hygiene facilities both in toilet areas and in bed spaces, particularly where patients need to use commodes
13.4 Wards/departments/services will ensure that patients have access to appropriate hand hygiene products/facilities before meals
13.5 The IPCT, Supplies, Occupational Health and other appropriate departments will continue to work together to optimise the hand hygiene products available to staff and patients.
13.6 The Board of Directors, TEG, Director of Human Resources and DIPC will continue to support the Dress Code policy. This includes the DH's 'Bare Below the Elbow' guidance.
13.7 The IPCT will work with the Communications department to continue to implement the on-going Hand Hygiene campaign. This may include, 'Bite

Sized' ward education sessions, using the Trust's 'Facebook' page and ward entrance TV screens. Other initiatives may include ideas for encouraging patients and visitors to undertake good hand hygiene e.g. holograms at hospital and ward entrances.

14. Invasive Devices: Management of Peripheral and Central Intravenous Access Devices & Urinary Catheters

Intravenous Access Devices

Patients who have peripheral, arterial, central or other intravenous (IV) access devices *in situ* are at increased risk of bacteraemia and localised site infections

14.1 Such devices must be managed as per the Trust Peripheral and Central Intravenous Access Devices policies and DH Care Bundles at all times

14.2 All departments/services will ensure that staff handling intravenous devices, whether at insertion or during on-going care, are appropriately trained

14.3 All patients who have a peripheral IV cannulae *insitu* must have
   a) the insertion documented
   b) the cannula site reviewed at least daily
   c) appropriate action taken in light of the daily review

   as per the Trust Management of Peripheral Cannula Policy
   Procedures should be in place to ensure patients are not discharged with cannulae *insitu* (unless there is a specific plan to do so)

14.4 Patients should be screened for MRSA either prior to, or within 24 hours of, a central IV access device being inserted. Patients with non-tunnelled central IV access devices *in-situ* should be re-screened every 7 days

14.5 Patients who have central IV access devices *insitu* and who have a recent history of MRSA should have MRSA topical therapy until the device has been removed. Such patients with long-term central IV access devices *insitu* should be discussed with the IPCT on an individual basis.

14.6 Audit of compliance with these protocols will be undertaken by department staff as part of the IPC Accreditation Programme.

14.7 Directorates will consider undertaking IV access device infection rate surveillance. This should be discussed with the IPCT.

14.8 The IPCT will undertake audits of peripheral cannula use and documentation. A targeted approach will be used based on information gathered from previous Trust-wide audits, bacteraemia data, Accreditation reviews etc. See sections 5.7 to 5.9 and 7.33.

14.9 Management of IV access devices and cannulae will continue to be a topic discussed at the regular IPC course provided by the IPCT.

14.10 Clinical areas will ensure that staff inserting, accessing or managing IV access devices are appropriately trained in using the various types of device and accompanying accessories used within that area.

14.11 Haematology will continue to undertake peri-insertion decolonisation treatment to reduce the rate of central IV access device related sepsis in this patient group – see section 7.35.

14.12 For further actions see sections 7.32 to 35.

14.13 Directorates will ensure that they provide appropriate patient information in respect of central IV access devices. Directorates should undertake a review to determine that the information they are providing is in line with Trust policies for managing such devices, that the information is readily available and that staff are aware that such information should be given to patients and relatives, as appropriate.

Urinary Catheter

Patients with urinary catheters in situ are at increased risk of urinary tract infections, bacteraemia and localised site infections

14.14 Such catheters must be managed as per the Trust 'Bladder Management and Urinary Catheterisation Policy for Adults' and DH Care Bundle at all times

14.15 All departments will ensure that staff handling any urinary catheter, whether at insertion or during on-going care, are appropriately trained

14.16 The Trust Professional Assurance Committee will continue to review data/information in relation to Urinary Catheters provided by the Catheter-Acquired Urinary Tract Infection (CAUTI) Group, which will continue to meet during 2022/23.

14.17 The CAUTI Group will monitor, and where appropriate audit against, its action plan to optimise catheter management with the aim of

a) Reducing the number of patients who inappropriately have a catheter *insitu* in both hospital and community settings – this will include issues around inserting the catheter in the first instance, regularly reviewing whether the catheter is still required and removing it in a timely manner if no longer required.
b) Ensuring optimal technique during insertion and on-going management
c) Ensuring appropriate information as to catheter management is available for patients and their carers e.g. why they have a catheter, and leaflets as to how to manage the catheters themselves are key proposed initiatives

14.18 Urinary catheter related actions recommended by the '*E.coli* Steering Group', will be implemented as appropriate; see sections 9.12 and 9.13.

14.19 Directorates will ensure that they provide appropriate patient information in respect of urinary catheters. Directorates should undertake a review to determine that the information they are providing is in line with Trust policies for managing such devices, that the information is readily available and that staff are aware that such information should be given to patients and relatives, as appropriate; see section 5.10.

15. Antibiotic Stewardship

Control of the amount, type and duration of antimicrobial prescribing is known to be one of the key activities in controlling certain infections e.g. *C.difficile* and in reducing the likelihood of antibiotic resistance developing.

15.1 The IPCT, Microbiology staff and the Antimicrobial Stewardship (AMS) Team will continue to develop and implement initiatives aimed at effectively achieving the above aim within the Trust. These include:

a. Reviewing on a rolling basis all trust-wide and directorate specific antimicrobial policies. From 2022 onwards, these are managed and updated on the Microguide App, to increase guideline accessibility.
b. Overseeing the rolling audit programme of compliance with antimicrobial treatment policies
c. Auditing antibiotic prescribing on wards where a Red or Amber *C.difficile* cluster has been noted (see section 8.12) or as requested by the IPCT
d. Daily/weekly specialist review ward rounds of prescribing including the type, dose, duration and route of administration of the antimicrobials used e.g. ITUs, SCBU etc.
e. Continuing review of the Restricted Antibiotic Policy

f. Overseeing the quarterly Antibiotic Prescribing Care Bundle audits as part of the Accreditation Programme – see section 15.2
g. Giving feedback to wards on the results of the quarterly ward based audits
h. Sending out quarterly reports of antibiotic usage to Directorates
i. Uploading the aforementioned audit and usage data onto the Antibiotic web-site
j. Participating in the development and implementation of the e-prescribing system (EPMA) within the Trust. Amongst other benefits this should help highlight where long or unusual antibiotic prescriptions are being used
k. Using EPMA to facilitate antimicrobial stewardship.
l. Reviewing on a quarterly basis Datix reports relating to antimicrobials and following up issues, as appropriate
m. Regularly reviewing antibiotic usage and reporting this to the IPC Committee and Antibiotic Therapy Team.
n. Participate, as resources allow, in collaborative work aimed at reducing antimicrobial usage, where clinically appropriate.

15.2 Antibiotic Prescribing Care Bundle audits will be undertaken as part of the Accreditation Programme: Audits will take place quarterly on each ward and be undertaken by ward based medical staff. Results will be sent to the AMS Team for review and analysis.

15.3 Whether the audits mentioned in section 15.2 have been undertaken or not will be included in the assessment as to whether a ward can achieve IPC Accreditation or not.

15.4 The AMS Team and IPCT will inform wards where an IPC Accreditation Engagement Concern flag may/will be applied, due to a lack of regular antibiotic audit submission.

15.5 The DIPC will take audit submissions into account when scoring Directorates for twice-yearly compliance against the IPC Programme

15.6 The AMS Team will oversee a range of activities designed to promote antibiotic stewardship as part of the European Antibiotic Awareness Day in November.

15.7 The Trust AMS Team will continue to work with primary care colleagues by attending NHS Sheffield CCG antimicrobial stewardship meetings to discuss antimicrobial stewardship across different care settings

15.8 The Trust will take account of any antimicrobial stewardship related CQUINs[26]/ NHS standard contract[8] targets and will work towards reducing antimicrobial consumption as clinically appropriate.

15.9 The AMS Team will continue to work with the IPCT to optimise the authorisation, prescription and application of topical MRSA/MSSA treatment via electronic prescribing

15.10 Where resources allow, audit of antibiotics prescribed in the community to patients who develop *C.difficile* infection will continue to be undertaken.

15.11 The AMS team will pilot the use of a point prevalence data collection platform. Initially this will be used for any areas that are on C*.difficile* Amber/Red or where the AMS Team determines there is cause for concern as regards antimicrobial prescribing. Information gained from the pilot will enable a more detailed evaluation of antimicrobial prescribing in certain areas and allow the Team to evaluate the point prevalence approach with a view to rolling this out further in the coming years.

16. Decontamination of Medical Devices and Patient Shared Equipment

16.1 The Decontamination Management Group will continue to review and optimise the decontamination of medical devices and patient shared equipment.

16.2 The focus will continue to be on:

a) Monitoring infection prevention and control risks for the equipment reprocessed by Sterile Services Supercentre, Steris IMS
b) Optimising, and overseeing the, decontamination and storage of flexible endoscopes
c) Advising on the decontamination of re-usable medical devices and patient shared equipment to all clinical areas

16.3 The Chemical Review Group (sub-group of the DMG) will continue to review the agents and products used for decontamination purposes across the Trust. This is to ensure these are appropriate as regards efficacy and compatible with the equipment and devices on which they are used. Other issues reviewed by the Group include, health & safety, consistency of approach, governance and cost.

16.4 Nurse Directors and Matrons should review whether decontamination of medical devices is taking place in their areas. All decontamination processes for high-risk equipment should take place in a centralised decontamination unit with trained staff unless specifically authorised by the Decontamination Management Group. If decontamination is taking place without authorisation, these situations should be referred to the Decontamination Management Group for review.

16.5 Decontamination of ward/department/service equipment will be audited via the appropriate module of the IPC Accreditation Programme. This will include both acute and community settings.

16.6 Beds, commodes and patient equipment e.g. infusion pumps should be cleaned as per protocol.

16.7 Items designated as ‘single use’ by the manufacturer are not re-used/re-processed. This applies, not only to sterile items, but any piece of kit that the manufacturer deems to be single use

16.8 In both acute and community settings, scissors used for managing patient dressings, wounds etc. should be a) ‘single use’ or b) ‘single patient use’ and sent for sterilisation between uses

16.9 The IPCT will continue to work with Community Services staff to optimise the facilities available for the decontamination of items used by staff in community settings. Where no suitable facilities can be provided, the IPCT will provide local guidance for specific equipment.

16.10 The IPCT, Microbiology department, Clinical Engineering and Cardio-perfusionists will continue to work with local and national colleagues to appropriately decontaminate and monitor the heater/ cooler units used during cardiothoracic surgery.

16.11 The IPCT & Decontamination Management Group will continue to review and advise on, the use of ultra-violet light as an option for environmental decontamination, as an adjunct to hydrogen peroxide misting.

17. Environmental, Cleaning, Water, Waste and Ventilation Issues

Environment

17.1 The Board of Directors, TEG, Chief Nurse's Office and DIPC will continue to optimise cleaning of the environment and to include the IPCT in decisions in this area.

17.2 The oversight of the refurbishment programme and the environmental cleaning standards and protocols for the Trust, will be considered by the Patient Experience Committee (PEC) which is chaired by the Deputy Chief Nurse.

17.3 The PEC will take note of issues raised at the PLACE inspections and take appropriate action.

17.4 Requests by wards/departments/services for upgrades, refurbishments etc. will be discussed and prioritised by the PEC. Environmental issues brought to light by the Covid-19 pandemic, will be considered when planning any upgrades, refurbishments or new-build facilities.

17.5 The programme of essential maintenance developed by the Estates department will continue, in both acute and community settings. Whilst this work is being carried out cleaning and minor upgrade work will take place, as appropriate.

17.6 Estates will ensure that all relevant Estates policies explicitly contain information regarding co-operation, communication and liaison with the IPCT

Cleaning

17.7 The IPCT will continue to participate as appropriate in the PLACE inspections

17.8 The Trust will work towards compliance with the National Cleaning Standards

17.9 The Community Based Services IPC Clinical Leads Group will continue to review the cleaning standards and frequencies within the facilities used by community based services, and agreed standards for going forwards. It is recognised that setting and maintaining standards in areas that are shared by STH services with other providers is problematic.

17.10 The IPCT, Facilities, Estates and clinical staff will continue to use and promote the agreed protocols for

a) The appropriate cleaning of radiators
b) The appropriate cleaning of ventilation grills
c) Fans

in acute and community settings

17.11 Facilities and clinical staff will continue to use and promote the agreed protocols for

a) Daily cleaning of bed spaces and bays, including where a patient is being managed in a bay with barrier precautions
b) Thorough cleaning of bed spaces, bays and single rooms vacated by patients with alert organisms (especially *C. difficile* and norovirus) or diarrhoea. This should ensure that all items, surfaces etc. are cleaned appropriately and may include the use of steam cleaners. Those responsible for each task should be aware of their role and undertake the tasks appropriately.
c) Cleaning of commodes/toilet seat raisers

17.12 Patient beds will be cleaned as per protocol. In summary,

a) Each bed should have the visible surfaces cleaned after every discharge
b) Each bed should have a full clean after being used by a patient requiring barrier precautions; a label on the bed should indicate that this has occurred

c) Each bed should have a full clean at least monthly – a label on the bed should indicate that this has taken place

17.13 The trolleys used to transport/store items to and from the Steris Sterile Services Facility (SSSF) to the Trust and onwards to wards/departments/ services will be cleaned after each delivery cycle.

a) Trolleys used to transport items to and from the SSSF to the Trust are the responsibility of Steris
b) Trolleys used within the Trust are the responsibility of the distribution team. Clarification will be made as to whose responsibility it is to ensure cleaning of these trolleys occurs

17.14 The Domestic Services ward/department/services cleaning schedules include the cleaning of ceiling ventilation grills as per the agreed protocol

17.15 Wheelchairs should be decontaminated and maintained as follows:

a) Surface wiped with detergent wipes or chlorine-based disinfectants between each patient e.g. Tristel Fuse
b) Have a full weekly clean using chlorine-based disinfectants e.g. Tristel Fuse
c) Annual service plus any maintenance required in between services

This is the responsibility of the Portering service for pool chairs. Where wards/departments/services own or keep/store chairs within their ward/department/service, the above becomes their responsibility

17.16 Senior and supervisory staff will promote the protocols in sections 17.10 to 17.15 amongst their staff; this applies in both acute and community settings

17.17 The IPCT, Facilities, Estates and clinical staff will continue to work together to provide a hydrogen peroxide vapour misting service as and when necessary as determined by the IPCT. This may be required after areas have been refurbished or deep cleaned, post a cluster of cases of *C.difficile* or individual rooms that have been vacated by patients with particular infections. Where appropriate, an ultra-violet clean (UVc) is used as an option for environmental decontamination, as an adjunct to hydrogen peroxide misting.

17.18 Domestic Services will ensure that disposable mops are not re-used and that re-usable mop-heads are laundered centrally; not at ward/department level. Similarly in Community buildings that are covered by STH, Domestic Services will ensure that disposable mops are not re-used and that re-usable mop-heads are laundered in the dedicated washing machines allocated on site.

17.19 String pulls in toilets should have a plastic cover

17.20 All areas should determine who is responsible for the regular cleaning of patient trolleys used in their area and ensure these items are regularly and appropriate cleaned

17.21 Where available, all computer keyboards in clinical areas should have keyboard covers. Whether keyboards have a cover or not, they should be cleaned as per the Trust Computer Equipment Decontamination policy

17.22 Computers and other IT equipment in clinical areas should be decontaminated as per the Trust 'Computer Equipment Decontamination policy'; this includes desk top computers, lap-tops, computers on wheels, whiteboards, tablets and mobile phones

17.23 The IPCT will continue to work with the Digital Services and others, as appropriate, to determine the optimal protocols for decontaminating IT equipment present on, or taken into, clinical areas e.g. white boards, tablets

17.24 The monthly cleanliness audits undertaken by the Domestic Services department should include a senior nurse from the area being audited at least 50% of the time.

17.25 The IPCT will participate in the Total Bed Management Programme review to ensure infection prevention and control issues are considered.

17.26 The IPCT will continue to provide support, and audit the use of, Tristel Fuse and Jet as the detergent/disinfectant products for environmental cleaning/disinfection within acute Trust services

Water

17.27 Infrequently used water outlets will be flushed daily for two minutes in accordance with the Trust Legionella policy. This will be undertaken by Domestic Services staff but it is the responsibility of senior nursing staff in each area to ensure that this has been done and recorded.

17.28 The Water Quality Steering Group will continue to review and progress options for delivery and assurance of this water outlet flushing. The first element of this is the Trust-wide roll-out of water outlet inventory, which will continue into 2022/23; see section 1.23

17.29 The Trust will aim to provide a hand washing station at all ward entrances. These will be installed during capital schemes or ward refurbishment. The most appropriate option will be chosen based on the ward/entrance layout.

17.30 As recommended by the DH[14], the Trust has a Water Safety Plan which covers various aspects of water quality including managing the risk of *Pseudomonas spp*. This Plan is overseen by the Water Quality Steering Group. In summary the Water Safety Plan includes:

- Protocols to ensure that the water distribution system and outlets are appropriately maintained and managed to reduce the risk of stagnation and contamination
- Local cleaning protocols for hand wash sinks to reduce the likelihood of outlet contamination i.e. taps are cleaned prior to the rest of the sink
- Assessments as necessary of the risk of *Pseudomonas spp*. to various patient groups and this is used as a basis for advice on the issues below
- Advice on the use of tap water for washing, bathing and showering patients i.e. in high risk units only water from outlets tested as pseudomonas free should be used for these tasks.
- Advice on the use of hand-wash basins and disposal of used water i.e. hand wash sinks should not be used for any other tasks and used/dirty water should not be disposed of via hand wash sinks. Exceptionally, where a risk assessment has determined that water used to wash patients is best disposed of via the hand wash sinks, the sink must be cleaned each time this occurs
- Monitoring of clinical isolates of *P.aeruginosa* as an alert organism
- A programme for 6 monthly-testing of outlet water for *P.aeruginosa* on high risk units
- Plans for managing patients and the water system in the event of pseudomonas positive water samples
- IPCT, Estates, Microbiology and Clinical staff will undertake the various actions required of them within this Plan.

Waste

17.31 All wards/departments/services should comply with the Trust Waste Policy

17.32 Clinical and allied health professionals should be provided with colour copies of the latest version of the Waste Times training update to facilitate compliant healthcare waste segregation.

17.33 Clinical areas should have at least one Waste Champion who has attended one of the monthly half-day Waste Champions training courses (course LD9001 bookable via PALMS) within the past two years

17.34 Clinical areas undertake an annual eCAT (or any subsequent quality/ governance initiative that replaces it) waste management self-audit / review

and act on its findings and report scores on eCAT (see above) or to their governance lead.

17.35 Clinical departments ensure areas/spaces are equipped with sufficient waste pedal bins and healthcare waste containers to achieve compliant waste segregation.

17.36 Clinical managers check staff under their responsibility are reading/acting on the latest version of the Waste Times and segregating healthcare wastes compliantly.

17.37 Areas caring for Covid patients should follow the waste segregation guidance in the 'Waste Segregation Matrix for Covid' document, which is available via PALMS.

Ventilation

17.38 The Ventilation Safety Group (VSG) oversees all decisions affecting the resilience, safety and integrity of the ventilation systems and associated equipment across the Trust. This includes 'major' air handling units and standalone 'air purifiers'.

17.39 The VSG gains assurance that risks relating to the operation of ventilation systems have been identified and has oversight of the implementation and management of these risks.

17.40 The VSG receives and critically analyses reports on Trust ventilation systems.

17.41 The VSG approves new/changes to policies, guidance and procedures relating to the management of the Trust ventilation systems and oversees the implementation of new legislation, regulatory requirements, and guidance from national or other bodies.

17.42 The VSG and IPC Team work together to identify the most appropriate ventilation requirements for all areas in respect to reducing infection risk to staff, patients and visitors. Where appropriate, risk assessments and mitigation measures are agreed and any remaining risks identified on the Trust risk register.

17.43 The IPCT will provide historical data on norovirus outbreaks within STH to the VSG to help in prioritising work on ward environments

17.44 The Estates Ventilation Operational Group manages the operational aspects of the maintenance, monitoring and upgrading/installation of the Trust ventilation systems.

17.45 The ventilation systems mentioned above include the ventilation within the operating theatre complexes across the Trust.

17.46 Where air purifiers are placed in clinical areas to reduce the infection risk, these should be left running 24/07 and not turned off, unless agreed by the IPC Team

18. Education, Training and Personal Protective Equipment (PPE)

Education and Training

18.1 All staff should receive appropriate, documented infection prevention and control training and education at induction and updates as determined within the Trust training needs analysis document. The update frequency will vary from 1 to 3 years depending on the role of the member of staff.

18.2 This training will be part of the wider Trust mandatory training programme

18.3 The IPCT will review the infection prevention and control training needs analysis documents, annually

18.4 Assurance of compliance with the standard in section 18.1 will be undertaken by the Learning and Development department using the PALMS system

18.5 The IPC annual refresher e-learning package is available on the Trust e-learning site and is available for all staff to access and use.

18.6 The current IPC induction e-learning is no longer in a supportable format. New starters will be required to access and complete the annual refresher instead. The Trust and IPCT will work together to determine a way forwards to enable the creation of a replacement package.

18.7 All new staff should complete the appropriate IPC e-learning material (see section 18.6) within six months after starting employment. Staff will generally undertake this via the e-learning site. However, the material can be presented by Educators in alternative formats to groups of staff as long as this is documented and added to PALMS

18.8 All staff should complete the annual refresher IPC e-learning material within 2022/23 or at the frequency defined in the training needs analysis for the staff member's role. Staff will generally undertake this via the e-learning site. However, the material can be presented by Educators in alternative formats to groups of staff as long as this is documented and added to PALMS.

18.9 The IPCT will review and update the annual refresher course annually, as appropriate

18.10 The IPCT will investigate adding in PPE donning and doffing and for testing/checking videos into the annual refresher course.

18.11 The IPCT will participate in the review of mandatory training being undertaken by the Learning and Development Team.

18.12 The IT and Learning and Development departments will work with the IPCT to facilitate the above goals.

18.13 Hand hygiene training will be undertaken at the generic Trust induction. Training will also be given on a risk assessment basis, as determined by audit and review results undertaken as part of the IPC Accreditation Programme or following identification of clusters of infection.

18.14 The IPCT will provide training for staff in how to undertake infection prevention and control audits. This issue will be included in certain Link Worker training days.

18.15 The IPCT will continue to provide Link Worker training days covering issues relevant to both experienced and less experienced staff

18.16 The IPCT continually review the education and training provided by the IPCT to determine which should continue, which should cease and which should continue in a modified format. The use of ward/department based 'Bite-Sized' educational sessions will be promoted.

18.17 Directorates will consider where infection prevention and control patient education may be appropriate in managing their own condition and provide this where applicable e.g. haemodialysis, chronic wounds, urinary catheters, intravenous access devices (see sections 14.13, 14.19). This is more likely, although not confined to, situations where the patient has a chronic condition or where patients are discharged home with devices in situ.

<u>Personal Protective Equipment</u>

18.18 The IPCT will focus on re-emphasising optimal use of PPE throughout the Trust. This topic will be included in IPC Link Worker training days. In addition, teaching sessions will be undertaken within key wards/departments/services where a need for improvement in practice has been noted by reviews, inspections or audits. Sessions will include medical, nursing, ancillary, therapy and domestics services as appropriate.

18.19 The IPCT will continue to work with colleagues to develop Trust-wide 'barrier precaution' signage that dovetails with the 'PPE levels' document

18.20 Wards and SPARC should use the standard Trust signage to indicate barrier precautions are required. Use of alternative signs should be agreed with the IPCT

18.21 The Trust will continue to optimise FFP3 mask availability and fit testing for staff

18.22 The Trust will continue to provide alternative options for staff, who cannot successfully fit-test with an FFP3 mask, should they need to undertake tasks where such protection is required. Where staff are unable to successfully fit-test for a range of FFP3 masks, an alternative method of protection will be determined for that individual e.g. powered hoods. Alternatively, such staff should not carry out procedures where respiratory protection is required.

18.23 All areas will undertake a risk assessment of which staff may reasonably be expected to wear FFP3 masks (for whatever reason) during the course of their normal duties and implement a fit testing programme for the staff concerned. This may be undertaken by Directorate Clinical Educators or within the central Trust fit-testing facility.

18.24 A record of respiratory protection fit-testing and training will be recorded for each staff member.

18.25 The Trust will work towards a suitable system for recording staff fit-testing training which is centrally and easily available.

18.26 FFP3 mask fit testing may need to be expanded to a wider group of staff during outbreaks of certain respiratory viruses.

18.27 In the light of experience gained during the Covid-19 pandemic, the Trust will review the pathways for identifying which staff require respiratory protection, where and how they are tested, options available for them and recording of the above.

18.28 The IPCT, Facilities and Clinical Directorates will work together to investigate and pilot options for re-usable PPE, to enable a more sustainable and resilient healthcare economy both local and nationally; see also section 20.9

19. Communication, Information and Information Technology

19.1 The Trust will keep under review the information, including infection prevention and control information, required to be displayed at ward entrances and on the Trust web-site.

19.2 The IPCT will work with the Trust to provide infection prevention and control information and data for display on notice boards, web-sites etc. as required.

19.3 The latest Trust IPC Report and IPC Programme will be on the Trust internet site.

19.4 The Communications and IPC Teams will liaise to discuss updating the infection prevention and control information on the Trust internet site.

19.5 Currently no infection prevention and control information is required to be displayed at ward/department/service level but, where areas choose to display such information, this will be in an enclosed display cabinet (or other suitably cleanable format), and be updated regularly, as appropriate..

19.6 The IPCT will continue to work with those planning, developing and implementing the information technology programme, in particular Digital Services, to ensure that, where possible, these developments will facilitate the infection prevention and control agenda

19.7 Specific issues identified to date to be addressed include:

- Evaluating the recently developed electronic peripheral cannula care form within the electronic Nursing Care Plan, see section 7.32
- On-going participation in the development and promotion of electronic Patient Care plans to replace Nursing Care Guidelines
- Digitalising the IPC Programme and quarterly compliance returns

19.8 Hand Hygiene Campaign - see section 13.7

19.9 The Trust will continue to work with the Sheffield Clinical Commissioning Group and Sheffield Health and Social Care Trust IPC Teams to investigate the options for providing medical microbiology and infection prevention and control support to these areas. This will be dependent on both financial and personnel resource constraints.

20. Research, Service Evaluations, Studies and Assessments

20.1 The Trust will look to participate in infection prevention and control related research, service evaluations, studies and assessments as such opportunities arise, funding and personnel permitting.

20.2 The IPCT will continue to take human factors into account when developing policies, protocols, strategies and initiatives. This is on-going and an iterative process and will include the development of the new pictorial Levels of PPE/barrier signage and the development of quick reference guides for staff to use, standardisation of cleaning products, commodes etc. across STH.

20.3 The Microbiology department will continue to investigate the typing capability of the in-house MALDI machine versus sending isolates to reference laboratories for typing.

20.4 The Trust has joined the 'COMBACTE' initiative and will participate, as appropriate, in studies overseen by this group.

20.5 The ID and Virology Departments will continue to develop a pilot PPE training package at the Sim Suite at Mexborough/Montague for staff managing patients with suspected HCID pathogens. This will use the 'Violet Mark 2' system developed by Trust staff in conjunction with HSE.

20.6 As part of the HCID National Network, analyse the results of the work undertaken previously as regards optimal PPE for the long-term care of confirmed HCID patients.

20.7 The IPCT will work with Sheffield University on any IPC projects which form part of the NIHR capital Antimicrobial Resistance grant.

20.8 The Trust will continue to participate, as appropriate, in Covid-19 infection prevention and control related research studies.

20.9 The IPCT, Facilities and Clinical Directorates will work together to investigate and pilot options for re-usable PPE, to enable a more sustainable and resilient healthcare economy both locally and nationally; see 18.28

20.10 The Trust will continue to participate in a multicentre evaluation of the role of procalcitonin in relation to antimicrobial stewardship during the Covid pandemic.

20.11 The Trust is investigating options for establishing closer links with trusts in Hull and Leeds from a research perspective, to enable multicentre observational work to be undertaken; this will have the potential to include infection prevention and control related research.

Written by Dr C Bates on behalf of the Infection Prevention and Control Committee
March 2022

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        - Guy's & St Thomas
        - Imperial College Healthcare
        - King's College Hospital
        - Manchester University Hospitals
        - Oxford University Hospitals
        - Sheffield Teaching Hospitals
        - The Newcastle upon Tyne Hospitals
        - University College London Hospitals
        - University Hospitals Birmingham
    - Other large acute teaching hospital trusts:
        - Leeds Teaching Hospitals
        - Nottingham University Hospitals
        - Royal Liverpool and Broadgreen University Hospitals
        - University Hospitals Bristol
        - University Hospitals of Leicester
        - University Hospital Southampton