

Sheffield Teaching Hospitals NHS Foundation Trust
INFECTION PREVENTION AND CONTROL PROGRAMME
April 2013 - March 2014

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 2013 – March 2014. The Infection Prevention and Control Team (IPCT) takes the lead in developing the Programme trustwide. The Nurse Directors (or equivalent) and Clinical Directors are responsible for implementing the IPC Programme within their Groups/Departments/ Directorates 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prevention and control activities, policies, protocols, procedures and guidelines unless specifically updated or superseded.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) every quarter 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:

- Trust-wide achievement of annual IPC Accreditation
- Compliance with the Health and Social Care Act 2008
- Prevention and Control of Norovirus
- Prevention and Control of *C.difficile*
- Prevention of meticillin sensitive *Staphylococcus aureus* bacteraemia
- Update of the infection prevention and control education induction and annual update e-learning packages
- Continued integration of Community Services into the wider Trust in respect of infection prevention and control

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:

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| • Infection Control Accreditation | • <i>Clostridium difficile</i> (<i>C.difficile</i>) |
| • Saving Lives Toolkit | • Influenza & Other Respiratory Viruses |
| • Health & Social Care Act 2008 | • Norovirus |
| • Ownership at Group/
Directorate/Ward level | • Hand Hygiene |
| • Audit and Review | • Decontamination of Medical Devices |
| • Surveillance | • Management of Peripheral and
Central intravenous cannulae |
| • Meticillin resistant <i>Staphylococcus
aureus</i> (MRSA) | • Environmental and Cleaning Issues |
| • Meticillin sensitive <i>Staphylococcus
aureus</i> (MSSA) | • Education and Training |
| | • Communication and Information |

1. Infection Control Accreditation

- 1.1 The Infection Control Accreditation scheme 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 Lives¹ 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 The IPCT will review the Accreditation Programme requirements for 'short term/seasonal wards' and progress the application of these, as appropriate.
- 1.5 The IPCT will review Phase 1 of the Community Services Group Accreditation Programme by May 2013 and roll out Phase 2. Where appropriate, changes will be made to the Accreditation Programme as determined by the Phase 1 review.
- 1.6 All areas will use the most recent version of the Accreditation Programme
- 1.7 Where wards/departments 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 will submit Accreditation audit scores to the IPCT on a monthly basis. Results for each month will be submitted by the end of the first week of the following month. The IPCT will upload the results onto a central database. This data will be used for the initiatives described in sections 1.10 to 1.15 and therefore it is extremely important that wards/departments submit data in a timely manner.
- 1.9 The IPCT will undertake a six-monthly review of how wards/departments are progressing towards Re-accreditation. This will include a check of the completeness or otherwise of the submission of audit scores as detailed in section 1.8 including submission of the quarterly Antimicrobial prescribing audits.
- 1.10 The IPCT will receive quarterly reports on wards/departments. These reports will code wards/departments as follows:
 - White - 12 or less months since last accreditation
 - Green - 13-15 months since last accreditation, or only recently commenced Accreditation and making satisfactory progress
 - Amber - 16-18 months since last accreditation
 - Red - 19 or more months since last accreditation or having never accredited
- 1.11 The Chief Nurse/Chief Operating Officer and IPC Committee will receive a summary of these quarterly reports, as will Nurse Directors, Lead Nurses, Matrons, Ward Managers and IPC Leads in non-ward based departments
- 1.12 Areas not progressing satisfactorily will be subject to the agreed escalation process. This will involve reporting to the Lead IPC Nurse, 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 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 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 Lead Nurse 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/Chief Operating Officer 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 Therapy Team via the Directorate Medical Antibiotic Champions.
- 1.13 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.
- 1.14 The IPCT will continue to produce and distribute 'leagues tables' list in respect of the Hand Hygiene and Cleanliness audits undertaken as part of the Accreditation Programme. This will be distributed quarterly to the IPC Team, the IPC Committee, Nurse Directors, Lead Nurses, Matrons, Ward Managers and IPC Leads in non-ward based departments
- 1.15 The IPCT will undertake a review with those who receive the 'league tables' and determine how they use the information. A review of how the information is presented will take place with a view to clarifying good performance and areas where action should be being taken.
- 1.16 When the IPCT undertakes reviews on wards following the detection of clusters of infection, the progress in respect of Accreditation will be investigated and form part of the outbreak report
- 1.17 The IPCT will continue to work with IT and other Trust departments to develop the system for submitting and downloading Accreditation data electronically rather than a partly paper based system.
- 1.18 The Accreditation status of the ward/area will continue to form part of the Trust annual Clinical Assessment Toolkit (CAT) review
- 1.19 The IPCT will continue to finalise the review of the Accreditation Programme that took place towards the end of 2012/13 and implement any changes by June 2013. This review will reflect any changes in the latest versions of the Saving Lives High Impact Intervention Care Bundles.
- 1.20 The IPCT will review the requirement for annual Re-accreditation and whether the frequency of this can be varied based on a risk assessment of different wards/departments
- 2. Saving Lives¹ Toolkit/NICE Infection Prevention & Control Guidance^{2,3}**
- 2.1 The Saving Lives¹ and Essential Steps⁴ 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 Infection Control Accreditation Scheme
- 2.3 NICE infection prevention and control guidance^{2,3} will be implemented via the IPC Programme and Infection Control Accreditation scheme.

- 2.4 To strengthen continuous quality improvement and learning, the IPCT will produce a newsletter three times a year. This will include topical infection prevention and control issues, learning points from root cause analyses and feedback of audit and surveillance results. The method of distribution of this letter will be determined during the year.
- 2.5 To enable patients and relatives to optimally manage their own invasive devices, particularly outside of the acute hospital setting, a review of patient information in respect of such devices will take place. This will include what information should be available, whether this currently exists or not, a review of the information itself, determining a system for ensuring the information is readily available and ensuring staff are aware that such information should be given to patients and relatives, as appropriate.

3. Health and Social Care 2008⁵

- 3.1 One of the Trust objectives is to be fully compliant with the current version of the Health and Social Care Act 2008⁵. Similarly, the Trust registration with the Care Quality Commission (CQC) requires compliance with Outcome 8 of the registration standards⁶ which relates to infection prevention and control.
- 3.2 The Deputy Chief Nurse, DIPC, the Lead Infection Control Nurse together with the IPCT will review the Health Act⁵ and Outcome 8 of the CQC standards⁶ and any issues/actions required to achieve the aforementioned objectives will inform the IPC Programme.
- 3.3 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.
- 3.4 The action plan implemented following the review of ward/department linen handling, will continue to be implemented

4. Ownership at Group/Directorate/Ward 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 and Ward 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 quarterly 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 every quarter, see section 4.5e) below.
- 4.4. The IPCT will continue to work to integrate the Adult Community Services into the Trust structure in respect of infection prevention and control. The responsibility and accountability structure for the management of various elements of the services within the Community Services group that impinge on infection prevention and control, will continue to be reviewed and established and a way forwards agreed. This includes issues in respect of the buildings used by the Group e.g. 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) Produce and implement as appropriate an annual IPC Programme/ Action Plan for all areas within their Group/Department, based on the requirements of this trust-wide Programme (in-house use only, does not need to be returned to the DIPC)
 - e) Review progress in respect of the Group/Department Infection Prevention and Control Programme on a quarterly basis. A completed Performance Assessment form (Appendix A or B as appropriate) should be returned to the DIPC on a quarterly basis as follows: by 8th July 13, 7th October 13, 6th January 14 and 7th April 14. 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 4th quarter 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 should include progress in relation to Infection Control Accreditation, issues raised from audits carried out in response to clusters of infection and areas for improvement detected by surveys, audits, complaints etc.
 - h) Ensure that the monthly MRSA and *C.difficile* data, sent out by the IPCT within the Infection Control Bulletin is reviewed at Directorate and ward/department level and action taken where data shows that cases have arisen in those areas. 'Lessons Learnt' 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 MRSA or *C.difficile* occur. See sections 6.13, 7.21-22 and 8.15-19 below. MRSA bacteraemia data and data on clusters of infections occurring on wards e.g. *C.difficile*, MRSA, norovirus etc. should be reported and discussed at the Directorate Healthcare Governance and Risk Management meetings
 - j) Ensure that the following infection prevention and control related polices, procedures and guidance are implemented in all wards/departments, as appropriate. The documents can be accessed via the Infection Control web-page <http://nww.sth.nhs.uk/NHS/InfectionControl/> and click on 'Clinical Guidelines and Polices' tab on the left hand side of the page.

Each ward/department should review annually whether all relevant aspects of these documents are being followed in their area:

- I. Infection Prevention and Control Standard Precautions, Prevention of Sharps Injuries & Prevention of Exposure to Blood/Body Fluids
- II. Hand Hygiene Policy
- III. Infection Control Patient Placement Guidelines
- IV. MRSA Guidelines
- V. GRE Guidelines
- VI. Multi-resistant Gram negative Guidelines
- VII. *C.difficile* Guidelines
- VIII. Norovirus Guidelines
- IX. Suspected infective diarrhoea Guidelines
- X. SARS/Avian Influenza/SRINIA Guidelines
- XI. CJD Guidelines
- XII. Tuberculosis guidelines
- XIII. Chickenpox
- XIV. Influenza Guidance
- XV. Hazard Group 4 Pathogens including Viral Haemorrhagic Fever Guidelines
- XVI. Scabies
- XVII. Lice and Fleas
- XVIII. Legionella Control and Management including Tap Flushing
- XIX. Birthing Pools
- XX. Hydrotherapy Pools
- XXI. Drinking Water Coolers
- XXII. Ice machines
- XXIII. Management of central IV line guidelines
- XXIV. Management of peripheral IV line guidelines
- XXV. Bladder management and Urinary Catheterisation guidelines
- XXVI. Aseptic technique
- XXVII. Guidelines for taking blood cultures
- XXVIII. Infection control guidelines for the Care of the Deceased Patient
- XXIX. Guidelines for completing death certification in respect of MRSA, *C.difficile* and other health-care associated infections
- XXX. Statutory notification of Infectious diseases
- XXXI. Linen Guidelines (due out Aug 2013)
- XXXII. Bed and Mattress Cleaning Protocol
- XXXIII. Decontamination Policy
- XXXIV. Animals and Pets in Hospital
- XXXV. Computer keyboards and equipment cleaning guidelines
- XXXVI. Management of occupational exposure to blood borne viruses and post-exposure prophylaxis
- XXXVII. Guidelines for the Management of Healthcare Workers with Infections
- XXXVIII. Antibiotic prescribing policies
 - Antibiotic prescribing guidelines
 - Antibiotic review policy
 - Restricted antibiotic policy
 - Chest infection and Pneumonia guidelines/bundle

- 4.6 For areas of the Trust not covered by the Clinical Groups e.g. do not have a Nurse Director, a senior individual e.g. the Lead for Healthcare Governance will be identified as the 'Lead for Infection Prevention and Control' and have responsibility for ownership, implementation and review of progress of the department Infection Prevention and Control Programme. The DIPC will be notified of the name of this individual. These areas are:
- Clinical Research Facilities
 - Community Services
 - Discharge Lounge
 - Estates
 - Hotel Services
 - Laboratory Medicine
 - Medical Imaging & Medical Physics
 - Occupational Health
 - Pharmacy
 - Professional Services

5. Audit and Review

- 5.1 Review of progress in respect of the Infection Prevention and Control Programme will take place as follows:
- a. Nurse Directors will complete a Performance Assessment form (Appendix A) on a quarterly basis (by 8th July 13, 7th October 13, 6th January 14 and 7th April 14) and return this to the DIPC within two weeks of these dates at the latest.
 - 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 as Blue, Green, Yellow, Amber or Red. Progress will be reviewed quarterly at the IPCT and IPC Committee meetings. The DIPC will also report progress quarterly to the Healthcare Governance Committee.
 - d. Where Progress is coded as
 - 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
 - e. A similar process using Appendix B will apply to non clinical areas (Clinical Research Facilities, Community Services, Discharge Lounge, Estates, Hotel Services, Laboratory Medicine, Medical Imaging & Medical Physics, Occupational Health, Pharmacy, Professional Services)
 - f. The Lead Infection Control Nurse will review progress in relation to the IPCT Programme quarterly 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/Chief Operating Officer's Office and DIPC in respect of strategic and corporate issues.
- 5.2 The Chief Nurse/Chief Operating Officer's Office, DIPC and IPCT will review the Trust position in relation to the infection prevention and control related standards within the Care Quality Commission Registration Standards⁶ at the request of the Trust Healthcare Governance Department.

- 5.3 The Chief Nurse/Chief Operating Officer's Office, DIPC and IPCT will review the Trust position in relation to the infection prevention and control related standards within the NHS Litigation Authority standards⁷ at the request of the Trust Healthcare Governance Committee.
- 5.4 The DIPC will provide data as requested by the Healthcare Governance Team to inform the Trust monthly Governance Dashboard.
- 5.5 Audits will be carried out as required within the revised Infection Control Accreditation Scheme. These include audit of:
- a) Hand hygiene
 - b) Commode cleanliness and repair
 - c) Cleanliness
 - d) Standard Precautions
 - e) Aseptic technique
 - f) Mattress audit
 - g) Linen handling audit
 - h) Antibiotic Prescribing
 - i) High impact interventions as outlined in the Saving Lives toolkit
 1. Central venous catheter care
 2. Peripheral intravenous cannula care
 3. Renal haemodialysis catheter care
 4. Prevention of surgical site infection
 5. Care bundle to reduce ventilated associated pneumonia
 6. Urinary catheter care
 7. Reducing the risk of *Clostridium difficile*
 8. Cleaning and decontamination of clinical equipment
- Audits may be added, removed or revised as advised by the review mentioned in section 1.19 above
- 5.6 Audit of compliance with MRSA screening protocols.
- a) The IPCT will review monthly the number of screens received by the Trust laboratories and relate this to the number of patients who should be being screened; patient episode data will be obtained from the information department. This information will be sent to commissioners as appropriate.
 - b) The IPCT will undertake MRSA screening compliance audits as per the agreed programme. High risk areas are reviewed three times a year, medium risk areas twice a year and low risk areas once a year. Where compliance is unsatisfactory repeat audits are undertaken in the following weeks. The results of the audits are distributed to the areas audited and reviewed monthly at the IPCT meeting.
- 5.7 The IPCT and Microbiology Department will undertake an annual audit of peripheral cannula use and documentation across the Trust. The audits will be undertaken in a staggered manner over a one month period. A review will be undertaken to determine whether more frequent audits are required in certain areas. Audits may also take place in response to clusters of MRSA/MSSA infection or MRSA/MSSA bacteraemia depending on the circumstances of the incident. See section 7.28 below.
- 5.8 The Trust (including certain services within the Community Services Group) will continue to participate in the NHS Safety Thermometer Programme⁸. This includes collecting information on patients who have a urinary catheter *insitu* and who are being treated for a urinary tract infection. Data will be collected by ward and Community Services staff. A group will be convened to review the data collected and develop an action plan as necessary - IPCT and Microbiology department staff will participate in this group as required.

- 5.9 Internal audit will undertake an audit of Directorate compliance with the requirements of the Infection Prevention and Control Programme
- 5.10 The IPCT will review progress in relation to the review and updating of infection prevention and control related policies/guidelines at the monthly JICT meeting. Policies/guidelines will be reviewed at least every three years although more frequent review will be undertaken as necessary.
- 5.11 The IPCT will continue the major review of the Infection Control Guidelines to separate out the many policies/guidelines within the existing single large document. This review will be completed by March 2014.
- 5.12 The IPCT will produce, review, approve and ratify infection prevention and control related policies/guidelines as per Trust requirements in this regard.
- 5.13 The IPCT will produce an Equality Impact Analysis (EIA) for each of the infection prevention & control related policies/guidelines. This will generally be undertaken at the time of production/review of the document.

Particular actions/ issues within the above policies/protocols for wards/ departments to review this year and ensure are taking place:

- 5.14 All areas should ensure that patients are screened for MRSA as per the MRSA screening protocols within the Trust MRSA Guidelines, see section 7.1-3 below.
- 5.15 All areas should ensure that patients with *C.difficile* diarrhoea are reviewed daily by their clinical teams and that where patients are deteriorating the IPCT is made aware of this, see section 8.2 below.
- 5.16 Appropriate 'Point of Access' areas should ensure that a SRINIA/SARS/Avian Influenza Personal Protective Equipment (PPE) box is readily available and that the contents are as listed in the SRINIA/SARS/Avian Influenza Policy. See Section 6 and Appendix L of the Trust SRINIA/SARS/Avian Influenza policy. These boxes can be used for any highly infectious pathogen as well as SARS etc. e.g. Cat 4 pathogens
 - Current 'Point of Access' areas are:
 - A&E NGH
 - MAU 1, 2 & Frailty Unit NGH
 - SAC NGH
 - Minor Injuries Unit RHH
 - Infectious Diseases unit RHH

'Points of access' may be added or removed throughout the year, as the functions of these areas change
- 5.17 All areas should ensure that infrequently used water outlets are flushed daily, see section 14.26 below, and this is recorded and available for auditing purposes. The Estates department will develop a programme for auditing this activity and centrally recording the results.
- 5.18 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 13.3
- 5.19 All areas should ensure that staff taking blood cultures do so as per the 'How to take a Blood Culture' guidelines
- 5.20 All areas will ensure that patients are screened for CJD using the questions and process laid out in Section 2 of 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 aim to achieve the MRSA bacteraemia and *C.difficile* diarrhoea operating framework targets. The Trust will participate in any other HCAI related DH/CQUIN objectives/modules as and when these are published.
- 6.2 The Trust will continue to participate in all Department of Health Mandatory Surveillance Schemes:
- a) MRSA bacteraemia
 - b) MSSA bacteraemia
 - c) Glycopeptide resistant enterococcus (GRE) bacteraemia
 - d) *C.difficile* diarrhoea in patients 2 years of age or older
 - e) Wound infections in orthopaedic surgery
 - f) *E.coli* bacteraemia
- 6.3 The IPCT will enter data on to the HCAI Data Capture System as per Department of Health guidelines
- 6.4 The DIPC, Operational Infection Control Doctors and Chief Nurse/Chief Operating Officer's Office will continue to develop systems to optimise the input of data into the HCAI Data Capture System in the absence of the DIPC. This will include any necessary training when the updated database is introduced during 2014
- 6.5 The IPCT will continue to use the bespoke Infection Control surveillance system as determined by the review undertaken in 2012/13
- 6.6 The IPCT and Trust will progress the upgrades required to optimise the bespoke system.
- 6.7 The IPCT will continue to work with the Trust to optimise the flagging of patients with MRSA, *C.difficile* etc on the Trust PFI/Patient Centre systems
- 6.8 The IPCT will continue to undertake surveillance of bacteraemia caused by Meticillin Sensitive and Resistant *Staphylococcus aureus* (MSSA & MRSA) and Extended Spectrum Beta-lactamase (ESBL) producing *E.coli* and participate in the South Yorkshire Infection Control Doctors project to collect this data on a sub-regional basis.
- 6.9 The IPCT will continue to produce the monthly Infection Control Bulletin. This includes important infection prevention and control messages and updates and a summary of MRSA colonisation/infection and *C.difficile* diarrhoea data. This will be sent out to all General Managers, Clinical & Nurse Directors, Medical IPC Leads, Matrons, Ward Managers, Lead Nurses, the IPCT and the Central Nursing and Medical Director's Offices.
- 6.10 The IPCT will undertake clinical reviews of patients as appropriate for the organisms concerned and the clinical situation of the patient. The frequencies the team aspires to work to is as follows:
- Active *C.difficile* infection - 3 x week
 - *C.difficile* infection where the patient has clinically recovered and finished treatment within the last 14 days - 2 x week
 - Previous *C.difficile* infection where the patient is asymptomatic but on antibiotics for whatever reason - 2 x week
 - Previous *C.difficile* infection where the patient is asymptomatic and not on any antibiotic treatment - 1 x week
 - Ongoing MRSA infection/colonisation and receiving MRSA treatment and considered at high risk of infection (i.e. critical care//infection, invasive devices *insitu*) - 2/3 x week
 - Ongoing MRSA infection/colonisation and receiving MRSA treatment - 2 x week
 - Previous MRSA infection/colonisation but less than 3 negative screens - 1 x week but may be seen more if the patient has invasive devices

insitu, is in a critical care unit or if a visit is required to request rescreens are undertaken

- Previous MRSA infection/colonisation but has had 3 negative screens, and has no intravenous lines in situ – 1x week
 - Patients with other alert organisms or conditions e.g. Tuberculosis /Group A Streptococcus/Campylobacter etc - 1x week but this will be varied on a case by case basis
 - Norovirus outbreaks- daily
- 6.11 The IPCT will undertake a detailed review over a two to four week period, during the first half of the year, of the visits undertaken by the Team and the usefulness of these reviews. This information will be used to determine if changes to the frequency of the reviews, as laid out in section 6.10 above, can be made. The information will also determine where staff education may be helpful in replacing reliance on the IPCT.
- 6.12 The IPCT will determine the actions required in respect of managing and reviewing patients who are *C.difficile* PCR +ve /toxin -ve.
- 6.13 Clusters of MRSA and *C.difficile* diarrhoea and single episodes of MRSA bacteraemia will be investigated as appropriate by the IPCT; see sections 8.15-19 and 7.21-22 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.
- 6.14 During 2012/13 the IPCT, DIPC and the Chief Nurse's/Chief Operating Officer's Office determined an escalation process for the rare occasions where the reviews undertaken, and the advice given, by the IPCT are not followed by satisfactory improvement and progress. This will be enacted as appropriate.
- 6.15 The IPCT will review the Trust infection surveillance strategy to determine a way forwards to expand this activity. The wound infection surveillance within the Cardiothoracic Directorate, which commenced during 2012/13, will continue and be part of this review.
- 6.16 The Infection Control Operational Group (ICOG) will meet at least 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, Deputy Chief Nurse, Lead IPC Nurse, Antibiotic Pharmacist, Hotel Services representative, Estates representative and the Operational Infection Control Doctors

7. *Staphylococcus aureus* (MRSA and MSSA)

MRSA

Screening for MRSA:

- 7.1 The Trust protocols for screening reflect DH requirements.
- 7.2 All departments will ensure that patients are screened for MRSA as per these agreed 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.

Managing patients colonised or infected with MRSA

- 7.4 The Trust has MRSA Nursing Care Guidelines for managing patients colonised or infected with MRSA. These Guidelines 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
- 7.5 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
- 7.6 The IPCT will continue to develop and implement MRSA management pathways covering both the acute and community sectors of a patient's care
- 7.7 The IPCT will continue to work with primary care colleagues to optimise decolonising patients in the community, where this is appropriate
- 7.8 In agreement with NHS Sheffield, 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.
- 7.9 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.
- 7.10 Patients with MRSA should preferably be nursed in single rooms. If this is not possible, the Infection Control Patient Placement guidelines will be followed e.g. patients with nasal carriage only may be managed with barrier precautions in a bay
- 7.11 A Datix incident form will be completed whenever a single room is required and is unavailable

MRSA Communication

- 7.12 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.
- 7.13 MRSA results will be communicated by the microbiology department to Infection Control and clinical staff in a timely manner as per agreed protocols
- 7.14 Infection Control staff 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.
- 7.15 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.
- 7.16 The IPCT will work with primary care colleagues to optimise the 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 Trust 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 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*.

- 7.17 Such lines must be managed as per the Trust Peripheral and Central Intravenous Line Care guidelines and DH Care Bundles at all times
- 7.18 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 *insitu* who also have MRSA.

MRSA target

- 7.19 The Trust will aim to achieve the MRSA targets and objectives for Trust attributable MRSA bacteraemia episodes as determined by a) Monitor and b) the Department of Health.
- 7.20 Regardless of any externally imposed targets/objectives, a zero tolerance approach will be taken to avoidable episodes of MRSA bacteraemia

Management of episodes of MRSA bacteraemia and MRSA clusters

- 7.21 Episodes of MRSA bacteraemia will be handled as Clinical Incidents and a review of the case held using the Department of Health Root Cause Analysis tool.
 - a) These meetings will involve one of the Infection Control Doctors and Infection Control 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 a priority strongly supported by the Chief Nurse/Chief Operating Officer and Medical Director.
 - b) Initial meetings/discussions should be held as soon as possible (within 48 hours) to ensure any urgent actions required are determined and undertaken. A root cause analysis meeting should ideally take place within one week although attendance of appropriate senior personnel is more important than a quick meeting without them present.
 - c) Any actions identified should be acted upon within an agreed time frame. On the rare occasions where satisfactory improvement and progress does not occur, the escalation process mentioned in section 6.14 will be followed.
 - d) 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.
 - e) MRSA bacteraemia episodes will be reported to the Clinical Commissioning Group as they occur, together with a summary of the root cause analysis results
- 7.22 Clusters of hospital acquired MRSA infections or carriage 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 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.

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

- 7.23 All inpatient and operating theatre areas will gain and maintain Infection Control Accreditation. This includes compliance with the aseptic technique audit tool, hand hygiene audit tool and peripheral IV cannula care bundle – see section 1

Monitoring

- 7.24 All cases of Trust Attributable MSSA bacteraemia will have a summary of the likely source of the bacteraemia (i.e. cannula, wound infection etc.) sent to the relevant Clinical Director for actions to be taken to prevent further cases.
- 7.25 MSSA bacteraemia has been added as a Nurse Sensitive Indicator to allow areas identified as having excess cases to identify actions to be taken to prevent further cases.

Peripheral cannula care

- 7.26 All inpatient areas should aim to have fully completed peripheral cannula charts for 100% of their patients. 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.
- 7.27 Communication regarding the care of peripheral intravenous cannulae will be widely circulated as a reminder of good practice - see section 2.4.
- 7.28 The IPCT and Microbiology Department will undertake an annual audit of peripheral cannula use and documentation across the Trust. The audits will be undertaken in a staggered manner over a one month period. A review will be undertaken to determine whether more frequent audits are required in certain areas. Audits may also take place in response to clusters of MRSA/MSSA infection or MRSA/MSSA bacteraemia depending on the circumstances of the incident. Results will be fed back to the area and the Directorate Management Team

Central Lines

- 7.29 The patient safety programme to reduce central venous catheter line infections will continue in General, Neurosciences and Cardiac Critical Care units
- 7.30 The use of TauroLock in the Renal unit will continue and consideration given to where else this may be used e.g. Haematology / Oncology.

Wound infections

- 7.31 The mandatory surveillance of surgical site infections within the Orthopaedic Directorate will continue – see section 6.2.
- 7.32 The surveillance of surgical site infections within the Cardiothoracic Directorate will continue – see section 6.15.

- 7.33 The IPCT will review the Trust infection surveillance strategy to determine a way forwards to expand this activity. – See section 6.15

MSSA case follow through and actions

- 7.34 Cases of Trust attributable MSSA bacteraemia in Renal, Cardiac Surgery, Cardiology, Neonatology, Orthopaedics, Haematology and Oncology will be subject to a full root cause analysis involving Microbiologists and IPC Team members.
- 7.35 A monthly email will be sent to Clinical Directors, Medical IPC Leads, Nurse Directors, Deputy Nurse Directors and Matrons from the Infection Control Doctors regarding the number of MSSA cases recorded each month and a summary of actions required to prevent further cases.

Directorate specific actions

- 7.36 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.
- 7.37 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
- 7.38 For non-surgical directorates the issues likely to be reviewed and addressed where necessary are:
- Care of peripheral intravenous cannulae, in particular the documentation of insertion and on-going review – aim for 100% of peripheral intravenous cannulae in place to have fully completed peripheral intravenous cannula 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 intravenous cannula implicated in an MSSA bacteraemia i.e. possible association with any particular clinical area or in ambulance prior to admission
 - Changing cannula if patients admitted from elsewhere

8. ***Clostridium difficile***

C.difficile Nursing Care Guidelines:

The Trust has *C.difficile* Nursing Care Guidelines for managing patients infected with *C.difficile*. These guidelines take into account the recommendations in the DH 'C.difficile Infection; How to Deal with the Problem' document⁹

- 8.1 These Guidelines 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 daily by their clinical teams and that where patients are deteriorating the IPCT are made aware of this

Patient Placement

- 8.3 Unless an infective cause has been excluded, patients with diarrhoea should preferably be nursed in single rooms. If this is not possible, the Infection Control Patient Placement guidelines will be followed
- 8.4 A Datix incident form will be completed whenever a single room is required and is unavailable
- 8.5 The Trust will continue to operate the *C.difficile* Enhanced Therapy unit on Robert Hadfield 4. Where clinically appropriate patients with *C.difficile* infection will be transferred to this unit.

Communication

- 8.6 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.
- 8.7 *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
- 8.8 IPC staff will communicate *C.difficile* results, advice and paperwork to clinical staff in a timely manner.

Control of antimicrobial therapy

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

- 8.9 The IPCT, Microbiology staff and the Antimicrobial Pharmacists will continue to develop and implement initiatives aimed at effectively achieving this within the Trust. These include:
 - a. Reviewing on a rolling basis all trust-wide and Directorate specific antimicrobial policies
 - b. Overseeing the rolling audit programme of compliance with antimicrobial treatment policies
 - c. Auditing the antibiotics prescribed to patients diagnosed with *C.difficile* infection
 - 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: Audits will take place quarterly on each ward and be undertaken by ward based medical staff. Results will be sent to the antibiotic pharmacists for review, analysis. Whether audits have been undertaken or not will be included in the assessment as to whether a ward can achieve Infection Control Accreditation or not. The DIPC will also take this into account when scoring Directorates for quarterly compliance against the IPC Programme
 - g. Reviewing the feedback given to wards on the results of the quarterly ward based audits and agreeing a way to expand this
 - h. Reviewing when the results of the quarterly audits can be used for Accreditation assessment and quarterly IPC Programme compliance rather than just whether an audit submission was made or not.
 - i. Sending out quarterly reports of antibiotic usage to Directorates
 - j. Uploading the aforementioned audit and usage data onto the Antibiotic web-site
 - k. Participating in the development and implementation of the e-prescribing system within the Trust. Amongst other benefits this should help highlight where long or unusual antibiotic prescriptions are being used
 - l. Auditing compliance with the Chest Infection Guidelines/Bundle
- 8.10 The Medical Director's Office will provide updated guidance on the use and, where appropriate discontinuation of, proton-pump inhibitors
- 8.11 The Trust will work with the primary care colleagues to optimise antimicrobial prescribing within the community
- 8.12 Where resources allow, audit of antibiotics prescribed in the community to patients who develop *C.difficile* infection will continue to be undertaken.

Cleaning and environment issues

- 8.13 Details of general cleaning issues can be found in section 14
- 8.14 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 to be cleaned will include, not only the patient's bed space, but the rest of the bay, the ward toilets, commodes, seat raisers, sluice and nurses 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 8.14a) 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 and any clusters of cases associated with the area. 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) The rolling programme of replacing bedpan washers with macerators will continue.
 - e) The programme of radiator cover removal and cleaning will take place annually on all wards prior to the heating being switched on in the autumn

- f) The IPCT will continue to undertake commode inspections as part of the Accreditation programme. More frequent inspections may be required should concerns be noted during Accreditation audits or at reviews undertaken by ward in response to individual *C. difficile* cases

Management of *C. difficile* clusters

- 8.15 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.
- 8.16 Samples from *C. difficile* clusters will be sent for ribotyping to aid investigation and management of the situation
- 8.17 Wards coded as Red or Amber will be reviewed at least weekly by the IPCT in respect of ward cleanliness, infection control and hand hygiene. A summary of the episode and review findings will be logged by the IPCT and distributed to staff responsible for the areas concerned, as well as to the DIPC and the Chief Nurse/Chief Operating Officer's Office.
- 8.18 On the rare occasions where these reviews are not followed by satisfactory improvement and progress, the escalation process mentioned in section 6.14 will be used
- 8.19 *C. difficile* clusters will be reviewed and monitored via the Trust's Serious Untoward Incidents process. Where appropriate these incidents will be escalated to the PCT and SHA. 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' document.

Other issues i.e. targets, testing, monitoring

- 8.20 The Trust will aim to achieve the *C. difficile* targets and objectives for Trust attributable *C. difficile* episodes as determined by a) Monitor, b) the Department of Health and c) Local Commissioners
- 8.21 The Microbiology department will continue to provide a 7 day a week *C. difficile* testing service for in-patient samples using protocols as per the Department of Health recommendations
- 8.22 The IPCT will determine how to manage patients found to be *C. difficile* PCR +ve/toxin -ve. This will include patient placement, treatment, labelling of medical notes, patient information and communication to GPs.
- 8.23 The IPCT will pilot admission screening for *C. difficile* in certain high risk areas of the Trust.
- 8.24 A root cause analysis (RCA) will be undertaken by the clinical teams for each Trust attributable *C. difficile* episode using the STH *C. difficile* RCA tool. The clinical teams should take note of the findings and take action as appropriate. The completed form should be returned to the Infection Control Doctor for the campus concerned to enable, where appropriate, wider lessons to be learnt.
- 8.25 A weekly e-mail will be sent out summarising the *C. difficile* situation for that week and the overall position for the reporting year. This will be sent to Clinical Directors, Medical IPC Leads, Nurse Directors, Matrons, Lead Nurses, the Chief Executive's Office, the Medical Director's Office, the Chief Nurse/Chief Operating Officer's office and the IPC Team.
- 8.26 The IPCT will commence the process for the replacement of the hydrogen peroxide misting machines.

9. Influenza and Other Respiratory Viruses

- 9.1 Planning for influenza will continue to be incorporated into the wider strategy for winter planning. The Winter Planning Group (WPG) will continue to lead the review of the Trust Influenza Plan each year which will include actions required to address both seasonal and pandemic influenza. The WPG will be chaired by the Deputy Chief Operating Officer.
- 9.2 Areas where staff may reasonably be expected to wear FFP3 masks (for whatever reason) during the course of their normal duties should implement a fit testing programme for the staff concerned. This may be accessed via the Trust Education and Training department.
- 9.3 FFP3 mask fit testing may need to be expanded to a wider group of staff during outbreaks of certain respiratory viruses. Advice will be given by the WPG as to which staff this should cover and where training can be accessed.
- 9.4 The WPG will receive a report on the staff uptake of influenza vaccination during 2012/13. An action plan will be developed to continue to improve uptake rates.
- 9.5 Directorates will participate in the planning and implementation of the agreed influenza vaccination strategy
- 9.6 The Pandemic Influenza Guidance will be reviewed and updated as appropriate during the year
- 9.7 The Seasonal Influenza Guidance will be reviewed and updated, taking account of any updated Department of Health advice, in time for the anticipated 2013/14 influenza season i.e. by the end of October. This may need to change as the season progresses or further advice is forthcoming.
- 9.8 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 lead by the consultant Virologists in conjunction with the IPCT and the clinicians for the areas concerned.

10. Norovirus

- 10.1 Planning for norovirus will continue to be incorporated into a wider strategy for winter planning. The Winter Planning Group (WPG) will undertaken a review in April and May 2013 of the management of norovirus during 2012/13. This will be used to plan for the anticipated norovirus activity during 2013/14.
- 10.2 The Trust will take account of the Department of Health norovirus¹⁰ advice.
- 10.3 The IPCT will explore a range of initiatives and ideas designed to detect cases early and prevent spread wherever possible. These will require input and co-operation from a range of professionals including nursing, managerial and domestic services staff. These may include escalation procedures for:
 - a) Cleaning all in-patient areas within the Trust with Chlorclean even if areas do not have cases of norovirus
 - b) Electronic flagging of patients arriving in A&E with symptoms of diarrhoea and vomiting
 - c) All areas asking every patient admitted to them a set of norovirus screening questions
 - d) On occasion, severely restricting visitors
- 10.4 The IPCT will investigate the possibility of stand alone bed-space enclosures to increase the number of isolation facilities available

11. Hand Hygiene/Dress Code

- 11.1 The Board of Directors, TEG, Chief Nurse/Chief Operating Officer's Office, DIPC, IPCT and staff at all levels within the Trust will continue to promote best practice in respect of hand hygiene via the Infection Control Accreditation Scheme
- 11.2 Hand hygiene audits will be undertaken as per the Infection Control Accreditation Programme.
- 11.3 'Alert' floor motifs will continue to be installed on ward entrances to promote the use of hand hygiene products on entry to ward areas
- 11.4 Wards/Departments 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
- 11.5 Wards/Departments will ensure that patients have access to appropriate hand hygiene products/facilities before meals
- 11.6 The IPCT, Supplies, Occupational Health and other appropriate departments will work together to optimise the hand hygiene products available to staff and patients.
- 11.7 The Board of Directors, TEG, Chief Nurse/Chief Operating Officer's Office and DIPC will continue to support the Dress Code policy. This includes the Department of Health's 'Bare Below the Elbow' guidance.

12. Decontamination of Medical Devices & Equipment

- 12.1 The Decontamination Group will continue to review and optimise the decontamination of medical devices.
- 12.2 The focus will continue to be on:
 - a) Monitoring performance of the Sterile Services Supercentre
 - b) Optimising decontamination of flexible endoscopes
- 12.3 Nurse Directors and Matrons should review whether decontamination of medical devices is taking place in their areas. All decontamination should take place in SSD unless specifically authorised by the Decontamination Group. If decontamination is taking place without authorisation, these situations should be referred to the Decontamination Group for review
- 12.4 Decontamination of ward equipment will be audited via the appropriate module of the Accreditation Scheme. This will include both acute and community settings.
- 12.5 Beds, commodes and patient equipment e.g. infusion pumps should be cleaned as per protocol. Each item should have a label clearly indicating that cleaning has taken place and when this last occurred.

13. Management of Peripheral and Central intravenous cannulae

Patients with peripheral, arterial or central intravenous catheters in situ are at increased risk of bacteraemia and localised site infections

- 13.1 Such lines must be managed as per the Trust Peripheral and Central Intravenous Line Care guidelines and DH Care Bundles at all times
- 13.2 All departments will ensure that staff handling any intravenous lines, whether at insertion or during on-going care, are appropriately trained
- 13.3 All patients who have a peripheral IV cannulae *insitu* should have
 - a) the insertion documented
 - b) the cannula site reviewed at least daily
 - c) appropriate action taken in light of the daily reviewas per the Trust Management of peripheral cannula Guidelines and DH Care Bundles

- 13.4 Patients should be screened for MRSA either prior to, or within 24 hours of, a central line being inserted. Patients with non-tunnelled central lines in-situ should be re-screened every 7 days
- 13.5 Patients who have central lines insitu and who have a recent history of MRSA should have MRSA topical therapy until the central line has been removed. Such patients with long-term central lines insitu should be discussed with the IPCT on an individual basis.
- 13.6 Audit of compliance with these protocols will be undertaken by department staff as part of the Infection Control Accreditation Programme.
- 13.7 Directorates will consider undertaking line infection rate surveillance. This should be discussed with the IPCT.
- 13.8 The IPCT and Microbiology Department will undertake audits of peripheral cannula use and documentation across the Trust. See sections 5.7 and 7.28 above.
- 13.9 For further actions see also sections 7.26-30 above

14. Environmental and Cleaning Issues

- 14.1 The Board of Directors, TEG, Chief Nurse/Chief Operating Officer's office and DIPC will continue to optimise cleaning of the environment and to include the IPCT in decisions in this area.
- 14.2 The Patient Environment Group will continue to meet chaired by the Deputy Chief Nurse. The Group will oversee the refurbishment programme and the environmental cleaning standards and protocols for the Trust.
- 14.3 The PEG will take note of issues raised at the PLACE inspections and take appropriate action.
- 14.4 Requests by wards/departments for upgrades, refurbishments etc will be discussed and prioritised by the Patient Environment Group
- 14.5 A programme of essential maintenance will be developed by the Estates department. Whilst this work is being carried out cleaning and minor upgrade work will take place, as appropriate.
- 14.6 The IPCT will continue to participate as appropriate in the PLACE
- 14.7 The Trust will work towards compliance with the National Cleaning Standards
- 14.8 The IPCT will continue to review the cleanings standards and frequencies within the Community Services Group and agree standards for going forwards.
- 14.9 The IPCT, Hotel Services, 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
- 14.10 Hotel Services and clinical staff will continue to use and promote the agreed protocols for
 - a) Thorough cleaning of bed spaces vacated by patients with diarrhoea (especially *C.difficile* and norovirus). This should ensure that all items, surfaces etc are cleaned appropriately and may include the use of steam cleaners
 - b) Daily, terminal and rapid response 'clean' to ensure that all items, surfaces etc are appropriately cleaned. Those responsible for each task should be aware of their role and undertake the tasks appropriately.
 - c) Cleaning of commodes
- 14.11 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 taken place
- c) Each bed should have a full clean at least monthly – a label on the bed should indicate that this has taken place
- 14.12 The trolleys used to transport/store items to and from the Synergy Sterile Services Facility to the Trust and onwards to wards/departments will be cleaned after each delivery cycle – this is the responsibility of Synergy
- 14.13 Where Bulk Store/exchange trolleys are used, these will be cleaned monthly – a label on the trolley should indicate when cleaning last took place. This is the responsibility of Bulk Stores staff.
- 14.14 The Domestic Services ward/department cleaning schedules include the cleaning of ceiling ventilation grills as per the agreed protocol
- 14.15 Wheelchairs should be decontaminated and maintained as follows:
 - a) Surface wiped with detergent wipes or chlorine-based/Difficil-S disinfectants between each patient
 - b) Have a full weekly clean using chlorine-based disinfectants e.g. Chlorclean, Trigene or Difficil-S
 - c) annual service plus any maintenance required in between services
 This is the responsibility of the Portering service for pool chairs. Where wards/departments own or keep/store chairs within their ward/department the above becomes their responsibility
- 14.16 Senior and supervisory staff will promote the protocols in 14.7-15 amongst their staff
- 14.17 The IPCT will work with the Estates department to re-assess the cleaning protocols for Hospedia equipment and how compliance can be improved
- 14.18 The IPCT, Hotel Services, 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*, MRSA etc or individual rooms that have been vacated by patients with particular infections.
- 14.19 Domestic Services will ensure that disposable mops are not re-used and that re-usable mop-heads are laundered centrally and not at ward/department level.
- 14.20 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.
- 14.21 The Estates department will continue to work with the IPCT, the Decontamination Group and ward staff to implement the replacement of bedpan washers with macerators.
- 14.22 The Estates department will ensure that all relevant Estates policies explicitly contain information regarding co-operation, communication and liaison with the IPCT.
- 14.23 Where available all computer keyboards in clinical areas should have keyboard covers.
- 14.24 Whether computer keyboards have a cover or not they should be cleaned as per the Trust guidelines. This also applies to computer mouse, card readers etc Guidelines are available on Trust intranet
- 14.25 String pulls in toilets should have a plastic cover
- 14.26 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.

- 14.27 The Water Quality Steering Group will develop a programme for the audit of infrequently used outlet flushing and central recording the results
- 14.28 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.
- 14.29 As recommended by the Department of Health¹¹, 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:

- Plans 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
- An assessment 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
- Plans to monitor 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.

- 14.30 Wards should use the standard Trust signage to indicate barrier precautions are required. Use of alternative signs should be agreed with the IPCT.
- 14.31 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 appropriately cleaned
- 14.32 The IPCT will use ATP technology as part of the quality assurance programme within Community Services in respect of the adequacy of cleaning

15. Education and Training

- 15.1 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.
- 15.2 This training will be part of the wider Trust mandatory training programme
- 15.3 The IPCT will review the infection control training needs analysis documents, annually
- 15.4 Assurance of compliance with the standard in 15.1 will be by Directorates/ Departments reporting via the Healthcare Governance system plus e-learning and Central Induction records. Once fully rolled out the Electronic Staff Record will record training and education information

- 15.5 The IPC e-learning package for induction and annual refresher are available on the Trust e-learning site and is available for all staff to access and use. The IPCT will review and update these materials annually, as appropriate and will also provide updated material for inclusion in the Central News Update.
- 15.6 All new staff should complete the induction IPC e-learning material within six months after starting employment. Staff may wish to do this over a number of days/weeks given the amount of material and information contained within the package. 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 ESR
- 15.7 All staff should complete the annual IPC e-learning material within 2013/14. 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 ESR
- 15.8 The IPCT will continue to review the current induction and annual update e-learning package to determine which elements need to be completed for the various staff groups within the Community Services Group. Once this has been determined, this will be communicated to the staff concerned.
- 15.9 The IT and Education departments will work with the IPCT to facilitate the above goals.
- 15.10 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 Accreditation Scheme or following identification of clusters of infection.
- 15.11 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.
- 15.12 The IPCT will review the Link Worker training days to determine how best to address the differing requirements of experienced and less experienced Link Workers
- 15.13 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.

16. Communication and Information

- 16.1 Infection prevention and control information will be displayed at ward entrances and on the Trust web-site.
- 16.2 The IPCT will continue to work with the Patient Partnership department to produce regular infection prevention and control information and data for display on ward notice boards. The information will include results of some Accreditation audits e.g. hand hygiene, cleanliness scores, commode and linen audits and rates of certain organisms e.g. MRSA and *C.difficile*, A review of the content will take place during 2013/14.
- 16.3 Any information displayed at ward/department level will be in dedicated enclosed display cabinets and be updated regularly. Information will be in a clearly visible format.
- 16.4 Review of the information available on the Trust internet site will continue
- 16.5 The latest Trust IPC Report and IPC Programme will be on the Trust internet site.
- 16.6 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 dependant on both financial and personnel resource constraints.

Written by Dr C Bates on behalf of the Infection Prevention and Control
Committee
March 2013

References:

1. Saving Lives: A delivery programme to reduce Healthcare Associated Infection (HAI) including MRSA.
<http://webarchive.nationalarchives.gov.uk/20120118164404/http://hcai.dh.gov.uk/>
2. NICE (2011): Prevention and Control of Healthcare-associated Infections
<http://www.nice.org.uk/aboutnice/whatwedo/aboutpublichealthguidance/health-care-associated-infections/qualityimprovementguide.jsp>
3. NICE (2012) Infection: Prevention and Control of healthcare-associated infections in primary and community care <http://guidance.nice.org.uk/CG139>
4. Essential steps to safe, clean care: reducing healthcare-associated infection. The delivery programme to reduce Healthcare associated infections (HCAI) Including MRSA:
http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4136212
5. Health and Social Care Act 2008: Code of Practice for the Prevention and Control of Infections and related Guidance
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_122604
6. Care Quality Commission registration Standards
<http://www.cqc.org.uk/organisations-we-regulate/registered-services/essential-standards>
7. NHSLA Risk Management Standards for Acute Trusts. NHS Litigation Authority <http://www.nhsla.com>
8. Safety Thermometer Tool
<http://www.ic.nhs.uk/services/nhs-safety-thermometer>
9. *Clostridium difficile* Infection: How to Deal with the Problem
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_093220
10. Health Protection Agency advice on the Management of Norovirus outbreaks in Acute and Community Setting (2011)
http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317131647275
11. Department of Health – Water Sources and Potential Pseudomonas aeruginosa Contamination of Taps and Water Systems
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_133317