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## Root Cause Analysis of MRSA/MSSA Bacteraemias and Clostridium *Difficile* Infections

<table>
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<th>Reference Number:</th>
<th>NHSCT/12/476</th>
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### Target audience:
This protocol is directed to all members working in Trust community care – primary and social care, adult and children’s services.

### Sources of advice in relation to this document:
- Pat McKee, Lead Nurse Infection Control
- Olive Macleod, Director Nursing & User Experience

### Replaces (if appropriate):
N/A

### Type of Document:
Trust Wide

### Approved by:
Policy, Standards and Guidelines Committee

### Date Approved:
17 November 2011

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24 January 2012

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**NHSCT Mission Statement**
To provide for all the quality of services we would expect for our families and ourselves
Root Cause Analysis (RCA) of MRSA/MSSA Bacteraemias and Clostridium *difficile* Infections (CDI) – Protocol

November 2011
Responsibilities

Chief Executive
The Chief Executive has overall responsibility for ensuring infection prevention and control is a core part of the Trusts governance and patient safety programmes.

Trust Board
The Board has collective responsibility for ensuring that appropriate and effective polices are in place to minimise the risks of healthcare associated infections.

Director of Infection Prevention & Control
It is the responsibility of the Director of Infection Prevention & Control to oversee the development and implementation of infection prevention and control policies/protocols.

Infection Prevention & Control Team
It is the responsibility of the Infection Prevention & Control Team to ensure this protocol is reviewed and amended at the review date or prior to this.

Service Managers
It is the responsibility of managers to ensure that staff are informed and made aware of this protocol.

Staff
It is the responsibility of staff / manager to ensure that they comply with the guidance given in this protocol.

Context of Protocol
This protocol should be read in conjunction with the following:
- Regional Infection Control Manual (assessed via NHSCT Staffnet or www.infectioncontrolmanual.co.uk);
- Trust Hand Hygiene Policy;
- Trust Management of Medical Devices Policy;
- Trust Outbreak Policy;
- Trust Ward Cleaning Manual;
- Trust Decontamination Policies (In-patient facilities or Community Facilities, Primary and Social Care);
- Trust Records Management Policy;
- Trust Aseptic Non Touch Technique;
- Royal Marsden, Manual of Clinical Nursing Procedures (Dougherty and Lister 2008);

Target Audience
This protocol is directed to all members working in Trust community care – primary and social care, adult and children’s services.
Equality, Human Rights and DDA
This protocol is purely clinical/technical in nature and will have no bearing in terms of its likely impact on equality of opportunity or good relations for people within the equality and good relations categories.

Sources of advice in relation to this protocol
The protocol author, responsible assistant director or director as detailed on the title page should be contacted in relation to any queries on the content of this protocol.

Alternative Formats
This document can be made available on request on disc, larger font, Braille, audio cassette and other minority languages to meet the needs of those who are not fluent in English.

Policy Statement
Introduction
The Trust continues to build on information and experience to increase the overall understanding of what is required to achieve sustainable reductions in healthcare associated infection (HCAI's). Root Cause Analysis (RCA) investigations are a well recognised way of doing this, offering a framework for reviewing patient safety incidents. Investigations can identify who, what, how, when and why incidents of HCAI have occurred. Analysis can then be used to identify areas for change, develop recommendations and look for effective solutions to improve the patient experience and reduce the incidence of avoidable infections.

In the Northern Health and Social Care Trust, root cause analysis must be undertaken in all cases of CDI and MRSA/MSSA bacteraemias in order to monitor risks of infection.

Purpose of the RCA protocol
- To describe the roles and responsibilities of key staff/teams during the RCA process.
- Using the RCA process, identify any critical points and contributory factors, and determine whether any preventative action(s) and improvement action(s) can be undertaken to reduce or control incidents of HCAI.
- To find effective solutions to identified problems in order that they do not recur. To ensure findings are reported and disseminated Trustwide therefore improving intelligence about HCAI and providing the Trust with the opportunity to learn from the RCA outcomes in order to minimise harm for patients in future.

Scope of this protocol
This protocol applies to all Trust staff involved in the care of a patient where the following healthcare associated infections arise:
- Clostridium difficile infection (CDI)
- MRSA/MSSA bacteraemias
The protocol may also be used for RCA of other infection related incidents where advised by the Infection Prevention and Control team or the Director for Infection Prevention and Control. Directorates may initiate further RCAs at their own discretion.
Roles and Responsibilities of Trust staff during RCA process

Laboratory Staff:
Laboratory staff will inform the Nurse in Charge of the ward of all positive CDI and MRSA/MSSA bacteraemias.

- **Monday – Friday 9am – 5pm**: The laboratory staff will inform the relevant Infection Prevention and Control Nurse for that locality/area of a positive result for Clostridium difficile or MRSA/MSSA bacteraemia and will inform the clerical/secretary for the infection control team;
- **Weekdays after 5pm; weekends and Public Holidays**, the laboratory staff will inform the IPCN on call directly by telephone.

Infection Prevention Secretary/Clerical Staff:
- Adds relevant preliminary patient data to Trust L drive (Infection Control Drive);
- Informs the IPC nursing team members for the relevant site/locality;
- Provides necessary information for the Public Health Agency (PHA);
- Circulates results/reports to DIPC, Directors, Service Managers, IPC Nursing Team, Lead IC Doctor, and Nominated Directorate Leads/Governance Managers;
- Email daily isolate Clostridium difficile information to relevant Trust personnel.

IPC Nursing team:
- Provides clinical advice as required to ward staff on identification of a MRSA/MSSA bacteraemia result or Clostridium difficile infection;
- Triggers the RCA process when providing advice to the ward/area;
- Informs the Director of Nursing of the positive result.
- Gathers mandatory surveillance data, including risk factors. Data collection will normally be carried out in conjunction with ward manager/lead nurse.
- Provides input into RCA process through provision of expert advice to the RCA meeting and facilitation of recommendations as appropriate;
- Have available recent relevant IPC nursing record(s) for analysis. Participates in the RCA meeting;
- Will update the Infection Control Drive with relevant information from the outcomes of the RCA meeting.

Ward Manager / Nurse in Charge:
- Initiates relevant Care Pathway and Clostridium Difficile High Impact Intervention Care Bundle;
- Communicates the laboratory result to the Consultant responsible for the patient at the time of diagnosis;
- Informs the Lead Nurse or designate for the service group;
- Gathers data as required using RCA Tool available from Trust intranet site;
- Briefs the RCA team of the time and location within the ward for the RCA meeting and participates in this meeting;
- Facilitates any recommended actions arising from the RCA meeting for his/her ward area and completes an action plan.

Lead Nurse/ Service Manager:
- Lead Nurse/ Service Manager is responsible for instigation and co-ordination of the RCA process for their clinical service areas;
- Requests and collates completed RCA forms within 2 working days;
• The Lead Nurse convenes the RCA Meeting within 5 working days of Laboratory result;
• Completes an RCA summary and ensure the development of action plans arising from RCA Meeting;
• Forwards the completed action plan(s) to the Nominated Directorate Lead for Infection Control/Governance Manager within 14 working days. Copies should also be sent to DIPC, Director of Nursing and the relevant (local) IPCN;

Consultant responsible/GP for the patient:
• Gathers data required using appropriate RCA data gathering tool and ensures that the patient notes are available for RCA Meeting;
• Chairs the RCA Meeting;
• Facilitates any recommended actions arising from the analysis.

Medical Microbiologist:
• Provides expert advice and microbiological information relevant to the case(s) for analysis;
• Attends the RCA meeting and facilitates recommendations as appropriate.

Ward Pharmacist:
• Gathers information on drug/antibiotic history (hospital and community) using appropriate RCA data gathering tool and attends RCA meeting if requested.

Domestic Supervisor
• Provides information on issues regarding environmental cleanliness and cleaning processes carried out, relevant to the case(s).

Nominated Directorate Lead/Governance Manager:
• NDL prepares summary of issues for IPCEHC and Trust Board and ensure inclusion in the appropriate Governance Team Meeting. The NDL also reports on the progress of the action plan.

The RCA Team should include:
• Consultant/GP/representative in charge of the patient’s care;
• Lead Nurse;
• Ward Manager/Deputy/Nurse in Charge;
• Infection Prevention & Control Nurse;
• Medical Microbiologist;
• Ward Pharmacist;
• Domestic Supervisor.

At the RCA Meeting the RCA team will analyse the information collated in the RCA data gathering tool.
(The “Five–whys” method for root cause analysis should be utilised by repeatedly asking “why” at least five times or until you arrive at the root cause. The root cause will have been identified when asking “why” doesn’t provide any more useful information.)
References
Changing the Culture 2010 (January 2010), Objective 2 Ensure that effective HCAI surveillance programmes and systems to investigate clusters and adverse incidents and to share learning are in place.


Public Inquiry in the Outbreak of Clostridium Difficile in Northern Trust Hospitals, March 2011.

First Line Empirical Antibiotic Therapy in Hospitalised Adults, Northern Trust Policy September 2011; available on Trust Intranet Policy Library.
Flowchart of RCA Protocol for MRSA Bacteraemia and Clostridium difficile infection

Lab telephones IPC secretary or IPCN with result of positive Clostridium difficile or MRSA/MSSA bacteraemia

Infection Prevention and Control Nurse (IPCN) offers advice to ward and triggers RCA process. IPCN informs Director of Nursing of result.

Informs nurse-in-charge of Ward who gathers data and completes RCA tool

Informs nurse-in-charge of Ward who gathers data and completes RCA tool

Initiate relevant Care Pathway and CDI HII Care Bundle

Medical Team assists with completion of RCA Tool and informs consultant in charge of patient

Informs Lead Nurse who requests and collates completed RCA tool within 2 working days

Infection Prevention and Control Secretary informs Director of Infection Prevention and Control (DIPC) by e-mail

Informs Pharmacist who assists with completion of RCA Tool

If increased incidence of any HCAI DIPC may initiate Senior Manager and Clinical Meeting

Informs Lead Nurse who requests and collates completed RCA tool within 2 working days

Lead Nurse convenes an RCA meeting within 5 working days of Laboratory result

Consultant chairs RCA Meeting, Lead Nurse completes RCA summary and action plan and sends to Nominated Directorate Lead (NDL). Copies sent to DIPC, Director of Nursing and the relevant (local) IPCN within 14 days of completed action. Learning points from RCA should be shared and disseminated throughout Trust by NDL via IPCEHC

Ward/department commences delivery of action plan

Completed RCA forms filed in patients medical notes. Copies sent to relevant IPCN

NDL prepares summary of issues and learning points from RCA which should be shared and disseminated throughout Trust via IPCEHC, Trust Board and appropriate Governance Team Meetings. NDL Reports on the progress of the action plan