

Infection Prevention Guidelines

Surveillance and data collection (including reporting Healthcare Associated Infections (HCAI) to Public Health England)

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Date of first issue:	December 2012
Version:	2
Date of version issue:	December 2014
Approved by:	HIPC
Review date:	January 2018

Executive Summary

These guidelines outline the Trust's infection prevention surveillance and reporting processes, and reporting of Healthcare Acquired Infections (HCAI) to Public Health England (PHE).

Data collection is completed and reported to clinical staff by the Infection Prevention Team.

Version History Log

Version	Date Approved	Version Author	Status & location	Details of significant changes
1	January 2013	Jane Balderson	Infection Prevention Nurse	Incorporates previous IP policy – Reporting HCAI to HPA
2	January 2015	Jane Balderson	Infection Prevention Nurse	Converted to guidelines Health Protection Agency renamed Public Health England

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1 Introduction & Scope

These guidelines outline the Trust's infection prevention surveillance and reporting processes, and the methods used to ensure timely reporting of Healthcare Acquired Infections (HCAI) to Public Health England (PHE).

2 Definitions

Alert organism – organisms of clinical interest within a health care setting that may result in infection for the patient.

Bacteraemia – organisms present in the bloodstream that may cause infection.

CDI – infection caused by *Clostridium difficile* and detected by a positive test for *Clostridium difficile*. Symptoms include diarrhoea.

Healthcare associated infection (HCAI) – infection acquired by a patient as a result of contact with a healthcare provider.

HCAI data capture system – web based computer database for recording HCAI episodes of bacteraemia and *Clostridium difficile*. The database is managed by the PHE.

Invasive devices – includes all devices that break through the skin

Multi-resistant organism – microbiological organisms resistant to common antimicrobials

Surgical site infections (SSI) – an infection of a wound following surgery.

Surgical site infection service (SSIS) – a data collection and analysis service managed by the PHE. A web link reporting system is used.

Surveillance of data - the comprehensive observation and measurement of the occurrence of disease, with analysis and dissemination of the results

3 Overview

Surveillance is the routine collection of data using standard definitions on infections, alert organisms and conditions, their analysis and the dissemination of the resulting information to key staff.

Surveillance helps to understand the prevalence, cost and effects of HCAI. It is the foundation for good infection prevention and control practice, and can help direct care in areas of concern. It can aid prevention and management of outbreaks through prompt recognition of one or more infections of alert organisms.

There is a mandatory requirement to report some bacteraemia results, *Clostridium difficile* infections and surgical site infection results to PHE and Department of Health (DH).

Appendices A to G explain the surveillance processes and reporting mechanisms used within the Trust.

4 Trust Associated Documentation

YTHFT [] Management and control of outbreaks policy

YHFT [CORP.RL10] Policy for the Development and Management of Policies

YHFT [] Serious untoward incident policy and procedure

5 External References –

HCAI data capture system and protocol -

<https://secure1.hpanw.nhs.uk/mrsa/download.htm>

Surgical site infection surveillance protocol -

<https://www.gov.uk/government/publications/surgical-site-infection-surveillance-service-protocol-procedure-codes-and-user-manual>

Norovirus web based reporting - <http://www.hpa-bioinformatics.org.uk/noroOBK/>

6 Appendices –

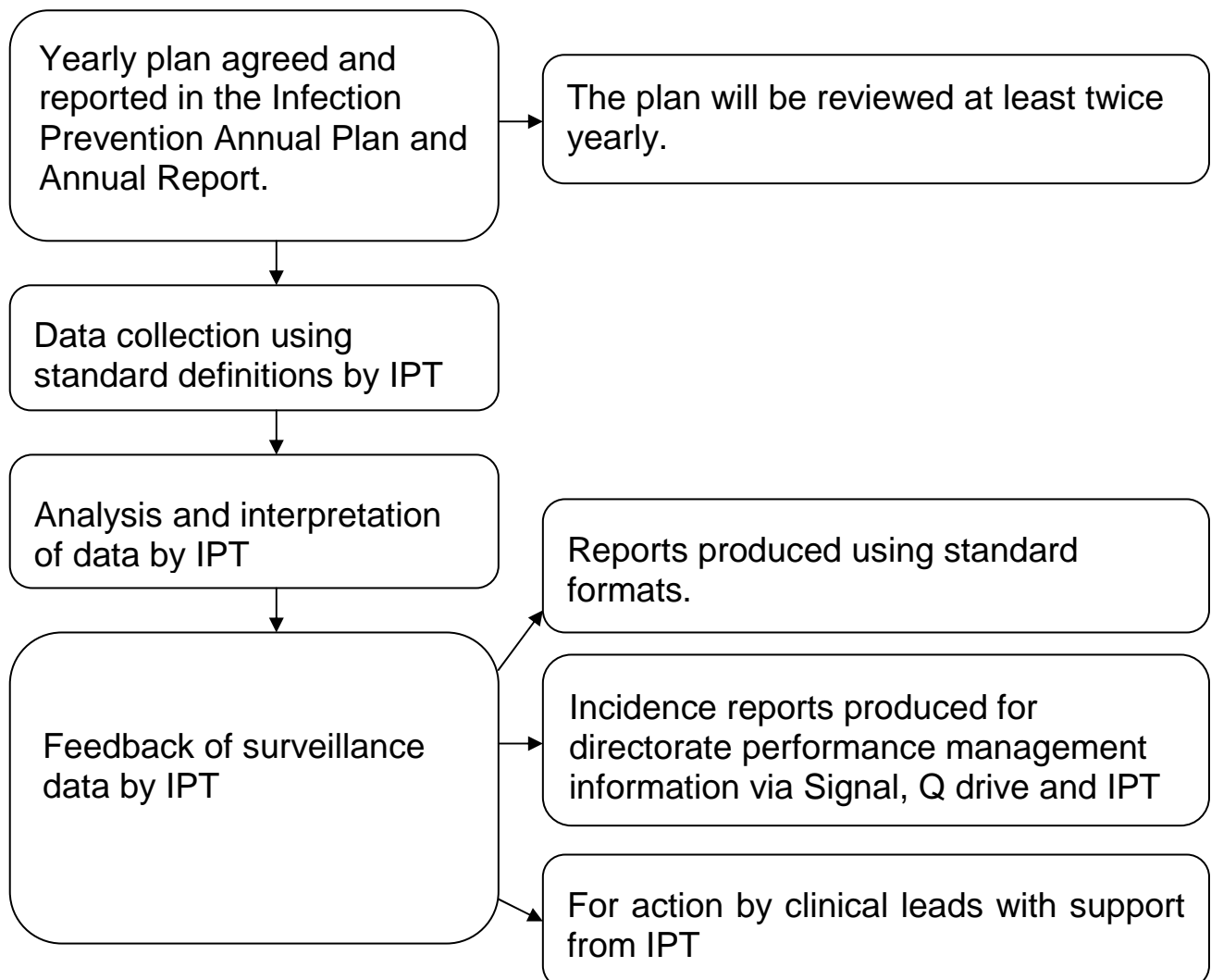
Appendix A	Surveillance objectives and process
Appendix B	Data collection and reporting of bacteraemia and <i>Clostridium difficile</i> within the Trust
Appendix C	Surgical site infection surveillance
Appendix D	Device related infection and urinary tract infection surveillance
Appendix E	Outbreak incident report
Appendix F	Serious untoward incident (SUI) reporting
Appendix G	Mandatory reporting to Public Health England

Appendix A – Surveillance objectives and process

Objectives of surveillance

- Assessment of infection incidence over a period of time.
- Timely investigation and instigation of prevention and control measures.
- To assess the effectiveness of prevention and control measures and interventions
- The prevention and early detection of outbreaks.
- Mandatory reporting to Department of Health where applicable

Surveillance Process



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Appendix B– Data collection and reporting of bacteraemia and *Clostridium difficile* (CDI) toxin positive within the Trust

Positive result from microbiology testing of blood cultures entered into laboratory database

IPT informed of positive results daily by laboratory staff
IPT carry out twice weekly search of laboratory database for new cases of MRSA, MSSA or E Coli bacteraemia and *Clostridium difficile*
Results cross-referenced and data stored in a spreadsheet.

Recurring positives from the same patient are considered a new case where the specimen has been taken 14 days or more after a previous reportable bacteraemia (as per PHE definition of case) or 28 days after previous reportable CDI

Patients' date of admission is checked on Core Patient Database and results are reported as:

- non-Trust attributed (specimen taken within 2 days (bacteraemia) or 3 days (CDI) of admission)
- Trust attributed (specimen taken after 2/ 3 days from admission)

Weekly Trust reports produced by IPT for Quality and Safety and senior management staff

Monthly excel graph reports produced for Signal and Q drive by:

- Ward
- Directorate
- Hospital site
- Trust

Reports are actual numbers and rate per 100000 bed days for hospital site and Trust

When appropriate, trends must be discussed and actions agreed by directorate staff at directorate management meetings

Appendix C - Surgical site infection surveillance

Surgical site surveillance may be implemented following:

- clinical request
- an increase in infection incidence following a surgical procedure
- a risk identified within a theatre or ward environment
- mandatory requirement for orthopaedic surgery. The Trust must participate for a minimum three month period each fiscal year in at least one of four orthopaedic surgical procedures.
- increased readmission rates with SSI

Surveillance is undertaken using the PHE surgical site infection service (SSIS) protocol. Except for the mandatory surveillance the results are reported within the Trust only.

Data is collected using

- Core Patient Database theatre and patient records. IPT collect data including demographic details, operation notes and follow-up appointment outcomes.
- Ward based surgical site observation records
- Laboratory database for any post surgery wound swab results
- Telephone follow-up carried out by IPT and/ or clinical teams for selected patients around day 30 following surgery

Reports are produced by IPT for clinicians and directorate leads who are responsible for developing action plans.

Appendix D – Surveillance of device-related infections and urinary tract infection

Device related or urinary tract infection surveillance may be implemented following:

- clinical request
- an increase in infection incidence linked to invasive devices
- an increase in urinary tract infections within a directorate or ward
- change in practice initiated within the Trust
- a need to determine and monitor a baseline rate

Data is collected using

- locally designed tools
- methodology appropriate for the purpose (eg point prevalence, targeted surveillance over an predetermined time frame).
- Core Patient Database patient records
- Laboratory database
- Definitions agreed locally from national and international sources

Reports are produced by IPT for clinicians and directorate leads responsible for developing action plans.

Appendix E - Outbreak incident report

When a bacterial, viral, infestation or influenza outbreak is declared by the Trust, an electronic report will be sent by IPT to the North Yorkshire and Humber Health Protection Unit (HPU). The report includes details of ward/ department closed, length of closure, number of patients and staff affected and the cause if known/ confirmed. Updated reports continue until the outbreak is declared over and the ward/ department have reopened.

Appendix F - Serious incident (SI) reporting

In the event of a SI being declared the SI reporting procedure will be initiated by the Director declaring the SI.

Appendix G - Mandatory reporting to Public Health England (PHE)

It is a mandatory requirement that the following HCAI are reported:

- all cases of Meticillin Resistant *Staphylococcus Aureus* (MRSA) bacteraemia, *Staphylococcus aureus* (MSSA) bacteraemia, and *Escherichia coli* (E coli) bacteraemia
- the total number of Glycopeptide Resistant Enterococci (GRE) bacteraemia
- all cases of *Clostridium difficile* infection (CDI) in patients aged two years and older where the specimen is diarrhoeal in nature and positive for toxin presence.
- At least 3 months each fiscal year of orthopaedic surgical site infection surveillance, including post discharge follow up.
- Outbreaks of bacterial, viral, infestation and influenza origin (confirmed or suspected)

HCAI data capture system

- All positive results from specimens tested in York Hospital laboratory, including inpatients, outpatients, regular attenders and General Practitioner specimens must be entered if they fit the reporting criteria
- IPT enter all positive results for a calendar month by the 14th day of the succeeding month
- The Chief Executive (CE) must 'lock down' the data for a calendar month by the 15th day of the succeeding month

Bacteraemia reporting criteria

- All MRSA, MSSA and *E Coli* bacteraemia cases are included.
- A second positive bacteraemia from the same patient that occurs more than 14 days after the last reported positive is recorded as a new episode.

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- GRE bacteraemia figures and the total number of all blood cultures taken and the total number of all blood cultures positive are reported quarterly by the 12th day of the second month in the succeeding quarter.

***Clostridium difficile* infection reporting criteria**

- All toxin positive *Clostridium difficile* infections are reported.
- A second toxin positive *Clostridium difficile* infection from the same patient that occurs more than 28 days after the last positive reported is recorded as a new episode.
- The total number of all stool specimens tested and the total number positive for *Clostridium difficile* toxin are reported quarterly by the 12th day of the second month in the succeeding quarter.

Surgical site infection surveillance system (SSISS)

- Reporting of mandatory surveillance for orthopaedic surgery - the data will be entered onto the SSIS web link (managed by SSIS).
- IPT is responsible for entering the data by the deadline set by SSIS.
- SSIS calculate infection rates and send an electronic report to the Trust.
- National infection rates are produced from the data collected from participating Trusts.

Norovirus outbreak incident surveillance system

- The PHE Norovirus outbreak definition is used to decide inclusion criteria for those outbreaks to report.
- When a norovirus outbreak is declared to be over IPT enter details of the outbreak on the PHE norovirus web-based surveillance system. The report will include details of ward/department closed, length of closure, number of patients and staff affected and the cause if known/ confirmed.