

# **Infection Prevention and Control**

## **Annual Report 2009-10**

**NHS Sheffield Infection Control Team**

**On behalf of  
Penny Brooks Cordon  
Executive Director of Standards  
May 2010**

## **1.0 INTRODUCTION**

**1.1** NHS Sheffield is committed to reducing Healthcare Associated Infection (HCAI) across the healthcare community of Sheffield and continuously strives to improve infection prevention and control (IPC) practice. This report details the significant reductions in HCAI that have been made and the excellent performance in Sheffield against standards, targets and national initiatives from April 2009 to March 2010.

**1.2** HCAI's occur as a result of patient care or treatment and a persons weakened immune system and reduced ability to fight infection. They can be caused by any number of organisms, the most common ones being Meticillin Resistant Staphylococcus Aureus (MRSA) and *Clostridium difficile*. Other antibiotic resistant organisms include Extended Spectrum Beta Lactamase (ESBL). For surveillance purposes HCAI that are identified within 48 hours of admission to hospital are classed as community acquired. Post 48 hours are considered to have been acquired in hospital.

**1.3** Since 2007 there has been a national drive to reduce HCAI and the Department of Health (DH) have introduced legislation and national targets. The Healthcare Commission (HCC) and now the Care Quality Commission (CQC) introduced increased monitoring and registration requirements. Key legislation/guidance is set out below:

- The Health and Social Care Act 2008 (The Code of Practice): for the NHS on the prevention and control of healthcare associated infections and related guidance (2009).
- MRSA Screening – Operational Guidance 2 (2008).
- Essential Steps to Safe, Clean Care: Reducing HCAI Guidance (DH 2006).
- Decontamination Medical Devices Directive (93/42/EEC).

## **2.0 GOVERNANCE AND ACCOUNTABILITY**

### **2.1 Responsibilities of NHS Sheffield**

NHS Sheffield is responsible for ensuring that the services it commissions / contracts have robust arrangements in place for Infection Prevention and Control (IPC), and comply with the relevant legislation and national targets. NHS Sheffield has ensured that robust governance arrangements are in place to discharge our duties.

### **2.2 The Infection Prevention and Control Strategy Group (ICSG)**

A city wide strategy was agreed and adopted in November 2008, and the group now has a remit to oversee the strategy and the performance of providers as a commissioner. The group is accountable to the Assurance Committee and reports quarterly.

### **2.3 Assurance Committee**

Its remit is to ensure that NHS Sheffield has assurance from its providers that they are delivering high quality and safe services. The committee meets quarterly and reports directly to the Trust Board.

## 2.4 Leadership and Accountability

### Director of Infection Prevention and Control (DIPC)

The Executive Director of Standards and Engagement is the Commissioning DIPC and duties are delegated to the **Deputy Director of Standards**.

### The Head of Quality and Infection Control

This role is responsible for the day to day management of the IPC Team and the operational delivery of the strategy.

### Infection Prevention and Control Team

The team consisted of the following posts from April 2009 to December 2009:

- Waste Manager (band 7) x1.0 WTE
- Infection Prevention and Control Practitioners (band 7) x 2.6 WTE
- Infection Prevention and Control Practitioner (band 6) x 1.0 WTE
- Infection Prevention and Control Administrative Assistant (band 4) x 0.8 WTE
- Decontamination and Medical Devices Lead (band 7) x 1.0 WTE

However since January 2010 the roles responsible for Sheffield PCT Provider Services have now transferred. The team now consists of: -

- Infection Prevention and Control Practitioners (band 7) x 2.0 WTE
- Infection Prevention and Control Administrative Assistant (band 4) x 0.8 WTE
- Waste Manager (band 7) x1 WTE

## 3.0 PATIENT AND PUBLIC INVOLVEMENT (PPI)

The IPC Team have proactively and effectively engaged with the public. This includes two LINKs member on the ICSG group, who are active in supporting initiatives and engaging the public. Activities include attending public events, producing an article for the PPI newsletter and providing advice and training to the public.

## 4.0 INFECTION PREVENTION AND CONTROL BUDGET 2009- 20010

The Infection Prevention and Control Team have an annual budget of £210,994. This includes a non-pay budget of £4,500 allocated to support delivery of the infection prevention and control annual programme, for example equipment and training. Costs relating to outbreaks are funded by individual services. Additional monies have been invested this year as follows in Table 1:

**Table 1: Additional Investment**

Decontamination baseline assessments (Jan 09 to Sept 09 )	<b>£20,000</b>
Decolonisation for elective admissions (STHFT)	<b>£28,649</b>
<b>Total</b>	<b>£24,600</b>
Microbiologist Post reserve	<b>£41,000</b>

# COMMISSIONED SERVICES AND INDEPENDENT CONTRACTORS

## 5.0 REGULATION

The purpose of the 'Code of Practice' is to help NHS bodies to enforce zero tolerance of HCAs. From April 2009, all providers had to declare compliance with the code in order to register with the Care Quality Commission (CQC). In Sheffield all NHS Providers have now registered in January 2010.

In relation to Independent Contractors, NHS Sheffield negotiated the key Code of Practice standards into Pharmacy, Dental and Optometry contractual quality frameworks. In general practice, the key Code of Practice standards are driven and implemented via the Personal Medical Service / General Medical Service PMS/GMS contract, as legislation.

## 6.0 COMMISSIONING RESPONSIBILITIES

The approach to commissioning is to drive continuous improvements to services by working with providers to raise standards and practice. It involves setting standard, monitoring service level agreements and contracts, national and locally set targets and performance managing exceptions against targets. Input has been provided into the Practice Based Commissioning process in respect of the approval of business cases to support service development and compliance with the Code of Practice. There is 1.0 WTE Infection Prevention and Control Practitioner (IPCP) with the responsibility of performance management of the following commissioned services with support of the Head of Quality and Infection Control:

- Sheffield PCT (Provided Services)
- Sheffield Teaching Hospitals Foundation Trust (STHFT)
- Sheffield Children's Hospital Foundation Trust (SCHFT)
- Sheffield Health and Social Care Foundation Trust (SHSCFT)
- Claremont Hospital
- Thornbury (BMI) Hospital
- Barlborough Treatment Centre
- St Lukes Hospice.

### 6.1 Performance Reporting

Infections are identified and reported via a number of mechanisms:

- Notifications from General Practitioners (GPs) and laboratory reports for notifiable diseases are reported to and collated by the Health Protection Unit (HPU) and subsequently the Health Protection Agency (HPA) Centre for Infections for national analysis.
- MRSA bacteraemias and Clostridium *difficile* infections for patients over 2 years of age are monitored centrally by the HPA via the Mandatory Enhanced Surveillance System (MESS).
- HCAs are performance managed by NHS Yorkshire and Humber SHA.

## 7.0 METICILLIN RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)

MRSA is a resistant form of common bacterium; Staphylococcus Aureus, which commonly colonises the skin. The infections that are reported for surveillance are

MRSA bacteraemias i.e. infections in the blood stream. NHS Sheffield monitors all bacteraemias and ensures a multi disciplinary Root Cause Analysis (RCA) is undertaken following each case, by the sector where it originated i.e. hospital and the community.

### 7.1 MRSA Targets and Performance

Trajectories for MRSA bacteraemia were agreed locally with STHFT. The stretch target was exceeded by 16 and the national target exceeded by 36. Please see table 2 below.

**Table 2: MRSA Performance**

Trust	09-10 Target	09-10 Local Stretch Target	Actual Cases	Percentage reduction on local target
STHFT	52	32 or less	16	50%
SCHFT	2	2 or less	0	0%

**Appendix 1** details the full STHFT and SCHFT MRSA data for 2009-10.

### 7.2 Community Associated MRSA Bacteraemia for 2009-10

Five community associated MRSA bacteraemia have been recorded for the year. A full Root Cause Analysis was undertaken on all cases. **Appendix 2** details these and the *Clostridium difficile* related deaths.

### 7.3 MRSA Bacteraemia Targets for 2010-11

In order to work towards zero tolerance a new objective has been introduced for 2010/11. Primary Care Organisations (PCO) now have a target based on a population rate for Sheffield residents only - see Table 3 below.

**Table 3: MRSA Targets for 2010-11**

MRSA 2010-11	Objective
STH	13*
SCH	1
PCO	17

\* 11 Cases from last year attributable to STH only.

### 7.4 MRSA Screening Targets and Performance

In 2008 the Department of Health issued MRSA Screening Operative Guidance. This recommends all elective patients should be screened for MRSA prior to admission by the end of March 2009, with screening for emergency patients on admission to be introduced no later than March 2011. These targets were set out in the Operating Frameworks of 2008-09 and 2009-10.

Since March 31 2009, all health providers in Sheffield have put in place an MRSA screening protocol which has been made available to the public. The screening activity has been monitored throughout the year and all Sheffield NHS providers are compliant with DH guidance.

## 7.5 MRSA Screening and Decolonisation of Elective Surgical Cases

NHS Sheffield continues to commission the above service in pre-admission clinics at the Northern General Hospital (NGH). All patients attending clinic are screened and those found to be positive are invited to attend an education session at NGH to self screen and treat. Data for the year is detailed in **Appendix 3A**. The data shows that large numbers of patients are screened in the service on a monthly basis has ranged from 747 to 998. Only five had to return to clinic for completion of their screening programme, which is an indication of the success of the educational programme. Nine patients have remained MRSA positive but the operation has still gone ahead. Two patients in the year have had their 18 week clock stopped because of their MRSA positive status. Elective patients for cardiac surgery will be screened through the pre-assessment clinic from April 2010. A centralised pre-operative assessment clinic for the Royal Hallamshire Hospital is planned for the autumn of 2010.

**Appendix 3B** details MRSA screening data collected from STHFT (all elective admissions), SCHFT, Sheffield PCT for 2009-10 and latterly Claremont Hospital. These figures and compliance percentages show that the provider organisations identified are compliant.

## 7.6 Community Management of Patients with MRSA Colonisation / Infection

In January 2009 a protocol was developed, in collaboration with STHFT, which describes the process for MRSA screening and decolonisation of specific patients following discharge from STHFT. This enables patients who are discharged from STHFT back into the community, to be screened and decolonised. The protocol addresses four key patient groups that are identified as being 'more at risk' of developing a bacteraemia if they are colonised or infected with MRSA. These are patients with diabetic venous ulcers, urinary catheters, sputum and central lines. Training and information with regard to the protocol was delivered to relevant community staff in September 2009. This is available on the intranet at <http://www.sheffield.nhs.uk/policies/resources/mrsaprotocol.doc>

## 8.0 CLOSTRIDIUM DIFFICILE (*C difficile*)

*Clostridium difficile* is a spore forming bacteria which is a major cause of antibiotic associated diarrhoea and colitis. It is carried in the gut with no ill effects by about 3% of the population but rises to around 25% in elderly patients in health care services.

### 8.1 Targets and Performance 09-10

*C difficile* targets have been set for a reduction of 30% for 2yrs and over, from the 2007/08 baseline to 2010-2011. Three separate targets were agreed for 2009-10 for STHFT, SCHFT and NHS Sheffield and we achieved significant reductions against the trajectory. See table 4 below for targets and performance. STHFT achieved 46% reduction against the target.

**Table 4: C.Difficile Performance 09-10**

Trust	2009- 10 Target	2009- 10 local stretch Target	Actual Cases	Percentage reduction in target
STHFT	375	304 or less	202	46% reduction against the target
SCHFT	12	12	4	67% reduction against the target
NHS Sheffield (all cases)	489	None set	295	40% reduction against the target

See Appendix 4 for full data on performance.

As part of the three year target, table 5 below details the targets for 2010-11.

**Table 5: C.difficile Targets for 2010-11**

C.difficile 2010-11	National Target
NHS Sheffield	444
STH	304
SCH	10

## 8.2 Community Associated Clostridium difficile related deaths for 2009-10

One community associated *C. difficile* related death has been recorded for the year. The learning outcomes from the investigation are detailed in **Appendix 2**.

## 9.0 PERFORMANCE REPORTS

Quarterly performance reports from NHS and private providers is reported quarterly to the Assurance Committee, **Appendix 5** details the end of year position.

## 10.0 INFECTION PREVENTION AND CONTROL IN CARE HOMES

NHS Sheffield and PCT Provider Services provide a range of support to care homes. From October 2010 the DH Code of Practice is a requirement for registration of Care Homes. NHS Sheffield undertook a survey of all 94 adult care homes to assess the readiness of compliance with the code between December – March 2009. The results will be presented at the Assurance Committee in August 2010.

## 11.0 CAPITAL PLANNING, REFURBISHMENT AND BUILDING DESIGN

The IPC team have advised on a number of new buildings:

- Intermediate Care Centre New Build
- Care in Your Own Bed Project

## 12.0 OUTBREAK MANAGEMENT MONITORING

The IPC commissioning role in relation to outbreak management is to ensure providers contain outbreaks (as much as possible) and that they are dealt with promptly and efficiently. Appendix 6 details the Sheffield provider's outbreaks.

### **Increased Incidence of Norovirus**

Within STHFT there has been a sustained increased level of norovirus activity which has led to outbreaks on wards, causing ward and bay closures. This began in November and has continued through to the end of the reporting period and has now been logged as a serious untoward incident in January 2010. A working group has been established to identify options to manage the situation next year. The increased incidence has also been a regional and national problem. Care homes and schools have also been affected.

## **13.0 COLLABORATIVE PROJECTS INVOLVING:**

### **Information sharing agreement with STHFT**

An information sharing agreement has been developed with the IPCT at STHFT in order to ensure a more secure and efficient way of transferring patient identifiable information electronically. This led to the creation of NHS mail addresses and a generic mail account for all staff concerned.

## **14.0 DECONTAMINATION**

STHFT February Trust board approved the transfer of sterile instrument decontamination to a new 'Super Centre' operated by Synergy Health Plc. This is a 15 year commitment and contracts are planned to be signed during May 2010. A building has been secured by Synergy close to the Sheffield Parkway, and an internal modular construction will be used to convert this into a high quality decontamination unit. Synergy expects to be ready to begin receiving instruments within nine months of the contract being signed.

## **INDEPENDENT CONTRACTORS**

## **15.0 GENERAL DENTAL PRACTICES (GDP's)**

### **15.1 IPC Training / Education**

Further to the recent launch of the 'HTM 01-05: Decontamination in Primary Care Dental Practices'; NHS Sheffield PEC funded a "Dental Decontamination and Infection Control" event for Sheffield general dental practice staff. The event was held on 16.09.09, hosted by the Dental Public Health Team and the IPCP. Over 185 delegates attended. The programme included presentations on:

- An in-depth look at the HTM 01-05 regulations and their implications for practice
- Satellite decontamination centres
- Occupational Health service for general dental practice staff
- Pandemic flu

In addition an alternative play "IPC in action", written by the IPCP and staged by the IPCT and Dental Public Health Team was devised. The play included audience participation on "how not to carry out infection prevention and control practices in the Dental Surgery setting".

### **15.2 Training DVD**

A DVD, of the above play, was filmed for future training. Charitable Trust funding of £3000 – £4000 was secured and a local film company was employed. The DVD consists of two sections:

Section 1 – Five “bad IPC practices” short films

Section 2 – Five educational short films on the IPC practices of:

- Hand hygiene
- Sharps
- Waste
- Personal protective equipment
- Blood and body fluid spillages

The DVD was completed in May 2010. The IPCP will be exploring possibilities for using as an E-Learning package for staff to carry out on an individual basis, CPD accreditation, etc, in the forthcoming year.

### 15.3 **Decontamination**

Health Technical Memorandum 01-05 (HTM 01-05) ‘decontamination in primary care dental practices’ was published in final version on 30th November 2010 and hard copies were distributed to practices early 2010. The content of the document is wider than the title indicates, covering infection control, safe handling of hazardous substances and waste management issues in addition to decontamination.

The guidance sets minimum essential requirements and a developmental standard. Dental practices have 12 months to comply with the essential requirements and must have a plan in place to achieve the developmental standard. Currently there is no date set for achieving the developmental standard. The main focus of this document is to; improve local policies, move decontamination out of the clinical treatment room, mechanise the washing process and improve the record keeping of decontamination processes.

In anticipation to the publication Dental Public Health made £10,000 available in 2008-2009. A part time project officer was appointed to support practices with compliance. 84 out of 88 practices were visited and assessed. Results showed that 39% of practices used a separate dedicated room for decontamination, and 49% of practices had purchased a washer disinfectant.

The project helped to establish priorities for capital grants and allowed more practices to make significant improvements and a total of £298,000 was shared between 24 practices.

### 15.4 **Training**

Dentists involved in domiciliary visits to care homes were delivered a workshop to work through the application of HTM 01-05 in the home and care home setting. This was facilitated by the IPCP and Decontamination Lead.

## 16.0 **GENERAL PRACTITIONERS (GPS)**

### 16.1 **General Practice - Infection Control Audit**

An infection control audit of GP premises was carried out in 2008-09. By the end of March 2009, 100% of the participating GP premises (111 participating out of 117) had been returned. Overall, the participating GP premises averaged a score of 92% against all nine criteria within the audit. The highest scoring component was 96% for prevention of blood/body fluid, sharps injuries, bites and splashes. The lowest scoring was 88% for decontamination.

All GP premises have been informed of their compliance results against each standard, along with comparable consortium and PCT averages. Action plans, including individual target review dates for each criterion have been agreed with each practice. The final report is available on NHS Sheffield's intranet at <http://nww.sheffield.nhs.uk/clinaudeffect/gpprojects.php>

- Sixteen practices were identified in January 2010 as achieving an overall average compliance score, for all 9 standards, of less than 85% against the IPC standards. (See Appendix 7). These practices have since confirmed that their action plans have been completed.
- A total of 33 practices have applied for improvement grants from the PCT LIFT and Capital Planning Team in 2009-10; specifically to meet IPC requirements identified in their action plans.

## 16.2 Decontamination

Decontamination practice was reviewed in the Infection Control audit undertaken in 2008. The 16 practices that failed to reach the minimum score for decontamination in the audit have all submitted action plans. These plans have been reviewed and the practices have all indicated they have taken the immediate steps required. The outstanding issues required major refurbishment work and can only be completed when funding is available. A re-audit programme is being developed to be completed by 2011.

Sheffield practices report they are not continuing to use autoclaves and sterile instruments are now almost universally single use. One practice prefers to continue with some reusable instruments and these are processed for them by the STHFT sterile supplies unit.

## 17.0 OPTOMETRY

### 17.1 IPC Training / Education

An IPC session was delivered at an optometry education event hosted by the Local Optometry Committee (LOC) in Sheffield on 22.10.09. This included promotion of the "Glow and Tell" loan scheme, which a number of practices have taken up this offer, providing "in-house hand hygiene training" for their staff. In addition, there is now an IPC link on the LOC website homepage. This has recently been superseded by the IPC webpage for all independent contractors.

## 18.0 PHARMACISTS

### 18.1 IPC Training / Education

The IPCP facilitated an IPC session at the Pharmacist's "Pandemic Influenza" PLI event on 08.07.09. The event was attended by approximately 120 Sheffield Pharmacists and pharmacy staff.

### "Chapter 5 – Infections" Chapter of the Sheffield Formulary

This has been updated this year, providing comprehensive guidance for use by all prescribing clinicians and pharmacists within community. This has been ratified in January 2010 and is available on the NHS Sheffield intranet at <http://nww.sheffield.nhs.uk/formulary/resources/formulary5.pdf> In addition, hyperlinks have been set up to information and protocols for MRSA and C diff. This

includes "C diff Good Practice Points" available at [http://www.sheffield.nhs.uk/formulary/resources/clostridiumdifficile\\_goodpractice.pdf](http://www.sheffield.nhs.uk/formulary/resources/clostridiumdifficile_goodpractice.pdf)

## 18.2 Reducing *C difficile* in the Community

Work has been undertaken to encourage effective antibiotic prescribing in the community. In addition to updating the above education for clinicians, via various newsletters /GP e-bulletin articles on C diff and MRSA and good practice guides around reducing the incidence of MRSA and *C.diff* e.g. prescribing practices, took place. An audit to review antibiotic prescribing practices within General Practice is currently being set up for 2010-11, with regard to those antibiotic groups thought to be associated with *C.diff* illness. The Microbiologist will also support this audit.

## 19.0 UNTOWARD INCIDENTS

### Vaccine Storage

There have been 2 vaccine storage incidents in May 2009 in two different GP surgeries. Action has been taken to ensure that all independent contractors received education, information and recommendations on the safe transportation and storage of vaccines and medications via an alert sent out by the IPC team.

### Legionella Flushing at Beech Hill Community Rehabilitation Unit

This incident involved a lapse in the flushing of water systems (taps and showers) in two patient bedrooms at Beech Hill, however the rooms were unoccupied. Beech Hill is currently taking part in a legionella management trial which is a computer based system.

## 20.0 PREMISES ROOM SPECIFICATION FOR LOCAL ENHANCED SERVICES

Guidance has been developed this year for "Primary care premises room specification for local enhanced services" in order to incorporate adequate measures to minimise IPC risks. This is available on NHS Sheffield's intranet as a hyperlink to the service specification and on the IPC webpage for independent contractors at [www.sheffield.nhs.uk/infectioncontrol](http://www.sheffield.nhs.uk/infectioncontrol)

## 21.0 SERVICE DEVELOPMENT – Lift and Capital Planning

Infection Control has engaged with LIFT and capital planning by providing specialist advice on the IPC requirements of all proposed and current self, third party and capital refurbishments and new developments and LIFT projects. Involvement has been at the planning stage and review of 33 improvement grant applications from GP practice premises.

## 22.0 WASTE MANAGEMENT

### Waste Segregation

In line with the HTM 07-01 guidance NHSS has adopted new colours for segregating clinical waste.

- *Infectious waste* is deposited in orange bags / bins,
- *Offensive waste* is deposited in yellow / black (Tiger stripe) bags / bins.

All NHS Sheffield sites and GP Practices have been supplied with clinical waste bags / bins this year in these colours. The changes introduced have led to an

increased focus on the assessment of patient infectivity by healthcare staff. Some staff are not yet aware of this change and further training will be provided this year.

### **Handling, Transport and Disposal**

NHS Sheffield has two major waste contracts, the first for Sheffield PCT Provider Services and the second for GP Surgeries. There is also a smaller contract with community pharmacies to collect and dispose of patient returned waste medicines. All contracts are with national companies with excellent reputations.

Waste is transported in specially designed vehicles to a number of licensed facilities for incineration, treatment or deep landfill. The transport and eventual disposal is subject to audit by the Waste Manager. 5% of GP Practices were audited in 2009-10 and the target for 2010-11 is 10%. The volume of clinical waste generated by each site is monitored by the Waste Manager. The analysis has shown a trend of rising waste volumes for PCT Provider Services and Pharmacies; in contrast, GP Practices waste volumes fell in 2009-10 and this can be seen in Appendix 8. This reflects the work done to minimise waste in GP practices in 2009-10 and reduce GP Practice waste costs by £37.521 in 2009-10 compared with 2008-09.

### **Staff Training**

Waste awareness training is included as part of the induction training package. In addition more localised briefings and visits are carried out by the Waste Manager at a large number of sites. All staff, patients and public have access to the Healthcare Waste policy via [www.sheffield.nhs.uk/policies/resources/healthcarewastepolicy.pdf](http://www.sheffield.nhs.uk/policies/resources/healthcarewastepolicy.pdf)

### **Action Plan for 2010-11**

The focus in 2010-11 will be to continue to raise awareness about waste management and minimisation and value for money tests will be carried out on all waste contracts.

## **23.0 CORPORATE FUNCTIONS**

### **Policies**

Appendix 9 details policies that have been produced or reviewed this year, in conjunction, where appropriate, with other providers in the health community.

### **Training and education**

IPC is included in the induction programme for commissioning staff

### **Pandemic influenza**

The IPC team were involved in the pandemic flu outbreak management programme last summer and provided advice and training events within Sheffield and at a regional level. This included a PLI session in July 2009 to 120 Pharmacists and a session in September to 185 General Dental Practice staff.

### **Legionella Management**

NHS Sheffield has responsibility for all PCT owned buildings and to ensure that providers are complying with national guidance on legionella. This year the following developments have taken place to ensure patients and staff are protected from contamination and that the PCT complies with legislation:

- The development and endorsement of a legionella control and management policy (written by the independent company 'Hydrop').
- Risk assessments of all NHS Sheffield buildings that had not been undertaken in the previous two years. Following this a programme of remedial works was carried out to remove or rectify any faults identified and set up a routine flushing and preventative maintenance programme.
- Setting up a corporate Legionella Management Steering group in August 2009, this now has input from STH Microbiology.

#### **Cleaning specifications and IPC at 722**

IPC has contributed to the above specification and put in place alcohol hand rub dispensers on two floors.

### **24.0 CONCLUSION**

The annual report for 2009-10 provides assurance that there are tight performance management systems and processes in place and there is a continued, significant reduction in HCAI's in Sheffield, All providers have successfully registered with the CQC, with two providers having unannounced inspections, demonstrating good compliance with standards. The PCT has strengthened its role as a commissioner and been instrumental and successful in driving up standards of IPC resulting in excellent performance against national and local targets.

**Contributions by  
Niiki Littlewood  
Angela Billings  
Shaun Deasy  
Gareth Owen  
Peter Tanker**

## Appendix 1

**MRSA Bacteraemia Data 2009-10**
**STHFT**

Month	Monthly Total	Cumulative Total	Cumulative Total Local Indicator	Cumulative Total National Target
April	1	1	2.67	4.33
May	1	2	5.33	8.67
June	0	2	8.00	13
July	3	5	10.67	17.33
August	1	6	13.33	21.67
September	3	9	16.00	26
October	1	10	18.67	30.33
November	2	12	21.33	34.67
December	1	13	24.00	39
January	2	15	26.67	43.33
February	0	15	29.33	47.67
March	1	16	32.00	52
Total	-	16	32 or less	52 or less

**SCHFT**

Month	Monthly Total	Cumulative Total	Target Cumulative Total
April	0	0	0.17
May	0	0	0.33
June	0	0	0.50
July	0	0	0.67
August	0	0	0.83
September	0	0	1.00
October	0	0	1.17
November	0	0	1.33
December	0	0	1.50
January	0	0	1.67
February	0	0	1.83
March	0	0	2.00
Total	0	0	2 or less

## Appendix 2

### RCA Community Associated (CA) Clostridium *difficile* Related Deaths and MRSA Bacteraemia During 2009-10

Date	RCA Notification (and patient initials)	Action Points/Learning outcomes	Avoidable/unavoidable case
July 09	MRSA bacteraemia(R.C)	<ol style="list-style-type: none"> <li>1. Ensure blood culture samples are received at the laboratory in a timely manner</li> <li>2. Communication systems between STH and PCT for notification of results etc.</li> </ol>	Unavoidable
July 09	Clostridium <i>difficile</i> related death (B.B)	<ol style="list-style-type: none"> <li>1. Educational need on antibiotic use and stewardship</li> <li>2. Management systems for out of hours service requesting samples/specimens</li> <li>3. GP representation is required at all RCA MDT meetings</li> </ol>	Unavoidable
July 09	MRSA bacteraemia (LH) Patient died. Septicaemia identified as primary cause of death Care home resident	12 Action points and learning outcomes identified. Key themes included; training provision for staff in pressure sore management, aseptic technique requirements for oral suctioning, appropriate cleaning of patient slings and IP&C policy review.	Avoidable although not able to determine point of acquisition
August 09	Clostridium <i>difficile</i> Patient died. C. <i>difficile</i> not identified on death certificate (RH)	<p>An MDT meeting was not held due to work commitments and a scoping exercise was undertaken by the IPC Practitioner and Quality Manager.</p> <p>Action points/learning outcomes were:</p> <ol style="list-style-type: none"> <li>1. Commitment of appropriate staff (including GPs) in attendance at MDT RCA meetings</li> <li>2. Guidance on hand hygiene required for Care Agency</li> <li>3. Establish with Medicines Management if further education and training on anti-microbial prescribing is required for GPs.</li> </ol>	Not able to determine as full RCA not undertaken
August 09	MRSA bacteraemia	1. Discussed the need for the re circulation of the article "The community management of patients colonised or infected with hospital MRSA" to GPs with the Professional Executive Committee Chair. Management Protocol re-circulated in Nov 2009	Unavoidable
August 09	Cluster of 4 cases of C. <i>difficile</i> . All fatal, 2 different ribotypes identified within the same care home.	<p>Two RCAs undertaken and managed by the South Yorkshire Health Protection Unit Health Protection Nurses, with support from NHS Sheffield IPCT</p> <p><u>1<sup>st</sup> Patient</u></p> <ol style="list-style-type: none"> <li>1. Continuing education of doctors at STH re</li> </ol>	

		<p>appropriate prescribing</p> <p>2. Urine samples to be requested prior to prescribing at STH (if possible)</p> <p>3. Care home to isolate recurrent cases of <i>c. difficile</i> for 72 hours</p> <p>4. Ambulance staff to be made aware that it is not necessary to have 3 clear stool samples prior to transporting patients</p> <p><u>2<sup>nd</sup> Patient</u></p> <p>1. Previous medical history to be available as printout for all current residents and new admissions / transfers to the home.</p> <p>2. Possibility that resident acquired C. Difficile from other resident because of time line but unsure how and when it was acquired</p> <p>3. Care home to isolate recurrent cases of <i>c. difficile</i> for 72 hours.</p> <p>4. C. Difficile was not identified on documentation at residents annual review</p>	<p>1<sup>st</sup> patient-unavoidable</p> <p>2<sup>nd</sup> patient-avoidable as per learning point 2.</p>
Nov 09	<p>MRSA bacteraemia (AW) Patient died. Cause of death identified as <i>staph aureus</i> Septicemia. Care home resident</p>	<p>Well attended MDT with GP support.</p> <p>1. The dependency levels of some of the residents were an issue for the care home. District Nursing Team to undertake relevant nursing assessments as soon as possible.</p> <p>2. Terminal cleaning of rooms should include a chlorine releasing agent.</p>	Unavoidable
January 10	<p>MRSA bacteraemia (IB) Care home resident</p>	<p>Well attended MDT with GP support.</p> <p>1. Steam cleaner required for terminal clean of carpets in residents rooms.</p> <p>2. The accepted level of instrument decontamination for independent podiatrists and autoclave maintenance to be explored.</p>	Unavoidable

## Appendix 3A

### MRSA Screening and Decolonisation Pathway for Elective Surgical Patients - STHFT Pilot NGH CPOA Clinic

#### Monthly Monitoring

	Apr 2009	May 2009	Jun 2009	Jul 2009	Aug 2009	Sept 2009	Oct 2009	Nov 2009	Dec 2009	Jan 2010	Feb 2010	Mar 2010
No's patients screened at CPOA clinic	821	832	910	896	827	979	998	912	839	747	777	886
No's of patients screened positive at pre assessment appointment	3	3	4	8	7	1	5	4	5	3	2	5
No's of patients identified as previously positive at pre assessment appointment	11	14	12	14	14	18	21	9	16	13	17	15
No of previously positive patients screened positive at pre-operative assessment appointment.	1	1	1	2	6	3	2	2	3	4	0	1
No's of patients unable to self screen and therefore return to clinic for completion of screening programme	0	0	1	2	0	0	0	0	2	0	0	0
No's of patients who remain positive but whose operation goes ahead	0	0	0	2	1	2	0	0	2	0	2	0
No's of patients who require their 18 week clock stopped – remain positive and operation does not go ahead	0	0	0	0	0	0	1	0	0	0	1	0
Number of new positive patients out of Sheffield	2	1	3	1	2	0	0	0	1	0	1	6
Number of previous positive patients out of Sheffield	6	3	3	3	0	5	3	3	6	2	2	2

Appendix 3B

MRSA Screening of Elective Activity



		Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Oct 09	Nov 09	Dec 09	Jan 10	Feb 10	Mar 10
<b>STHFT</b> (inc emergency)	Performance	105.7%	106.7%	109.7%	109%	109%	112%	115%	107%	111%	107.2%	113.0%	111.0%
<b>SCHFT</b>	Performance	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Claremont</b>	Screened										371	373	
	Admitted Patients										429	363	
	Performance										86.5%	102.8%	
<b>Podiatry</b>	Screened	30	21	21	27	28	20	23	31	0	27	17	20
	Patients operated on	30	21	21	27	27	20	22	31	0	27	16	20
	Performance	100%	100%	100%	100%	103.7%	100%	104.5%	100%	100%	100%	106.3%	100%

**Appendix 4**
**C.difficile diarrhoea data 2009-10**

**STH episodes detected >48 hours after admission, patients >2 years of age**

<b>Month</b>	<b>Monthly Total</b>	<b>Cumulative Total</b>	<b>Cumulative Total Local Indicator</b>	<b>Cumulative Total National Target</b>
April	18	18	25.33	34
May	25	43	50.67	68
June	16	59	76	101
July	16	75	101.33	134
August	13	88	126.67	166
September	18	106	152	198
October	18	124	177.33	229
November	13	137	202.67	260
December	20	157	228	290
January	16	173	253.33	319
February	17	190	278.67	347
March	12	202	304	375
<b>Total</b>	<b>202</b>	<b>202</b>	<b>304</b>	<b>375</b>

**Total Sheffield episodes in patients >2 years of age  
(includes GP and Community samples plus SCH and STH samples both pre and post 48 hours from admission – Sheffield residents only)**

<b>Month</b>	<b>Monthly Total</b>	<b>Cumulative Total</b>	<b>Target Cumulative Total</b>
April	20	20	43
May	30	50	86
June	25	75	128
July	29	104	170
August	26	130	212
September	28	158	253
October	21	179	294
November	20	199	334
December	24	223	374
January	19	242	413
February	26	268	451
March	27	295	489
<b>Total</b>		<b>295</b>	<b>489</b>

## Appendix 5

### Infection Prevention and Control (IP&C) Update Summary Report from April 2009 to March 2010

Work stream	STHFT		SCHFT		SHSCFT		DPS		St Lukes	Claremont	Thornbury
<b>Hygiene Code Compliance</b>	Full Non Conditional Registration Last CQC inspection- Jan 2010		Full Non Conditional Registration Last CQC Inspection September 2009		Full Non Conditional Registration		Full Non Conditional Registration		Will be required to comply by October 2010	Will be required to comply by October 2010	Will be required to comply by October 2010
<b>MRSA Bacteraemia</b>	Local Target	32	Local target	2	None during this time frame		5 Community associated MRSA bacteraemia Please see appendix 2 for details.		Nil	Nil	Nil
	Q4 actual rate	16	Q4 actual rate	0							
	Q4 Trajectory	32	Q4 Trajectory	2.0							
<b>MRSA screening figures</b>	Monthly screening has shown to be over 100%. Quarter 4 compliance is between 107-111%		Monthly screening has shown to be 100%.		Comply with DH Screening requirements for mental health services, for example screening those with invasive devices, IV drug users		MRSA screening applies only to Podiatric Surgery elective patients, 100% compliance		DOH guidance not applicable, however they have their own local policy.	We have been assured that they are compliant; however the data is being chased via the contract mechanism	We have been assured that they are compliant; however the data is being chased via the contract mechanism
<b>C-diff figures</b>	Local Target	304	Local Target	12	Local Target for all Sheffield community as per DPS		Local Target for all Sheffield community 489		No data received to date. Part of community figures	No data received to date. Part of community figures	No data received to date. Part of community figures

Work stream	STHFT		SCHFT		SHSCFT		DPS		St Lukes	Claremont	Thornbury
	Q4 Actual Rate	202	Q4 Actual Rate	4	Q4 Rate as per DPS		Q4 Actual Rate	293			
	Q4 Trajectory	304	Q4 Trajectory	12	Q4 Trajectory as per DPS		Q4 Trajectory	489			
<b>Audit and re-audit including equipment, commode and mattress</b>	Audits mostly undertaken via the infection control Accreditation Scheme, for example monthly cleanliness audits and quarterly mattress audits		Ward cleanliness audits commenced October and repeated 8 weekly. Environment and equipment audits undertaken weekly by Matrons		1 <sup>st</sup> Mattress audit commenced December 2009. Further audits on mattresses and commodes planned monthly from April 2010.		1 <sup>st</sup> Mattress and commode audits undertaken at Beech Hill in November 2009. Further audits planned bi-annually		Mattress audit completed twice a year. 70% of the mattresses have been audited to date.	Not part of contract	Not part of contract
<b>Outbreaks and report summary</b>	STH have had significant prolonged outbreaks of diarrhoea and vomiting/norovirus that started in November 2009 and has been sustained during Quarter 4. This has been reported by STH as a SUI in January and a working party has been established by STHFT to identify options for future management of the norovirus outbreaks.		No outbreaks reported during this period.		1 outbreak of D and V has been reported in Quarter 1 and Quarter 2. 2 Outbreaks of D and V and 1 of norovirus have been reported during Quarter 3. During Quarter 4 a further 7 outbreaks have been reported (3 norovirus, 1 rotavirus and 3 D and V).		2 D & V outbreaks occurred in Q1 3 D & V outbreaks occurred in Q3 and 3 D & V outbreaks and 1 norovirus outbreak occurred in Q4.		Nil outbreaks	Not part of contract	Not part of contract

Work stream	STHFT	SCHFT	SHSCFT	DPS	St Lukes	Claremont	Thornbury
	MRSA outbreaks have also been reported, 1 in Q1, 3 in Q3 and 2 in Q4. Clostridium difficile toxin alerts have also been recorded. 18 Amber alerts over the year and 15 red alerts*						
<b>IP&amp;C Policies developed or reviewed</b>	Reviewed/developed in line with Infection Control Programme	Reviewed/developed in line with Infection Control Programme	Reviewed/developed in line with Infection Control Programme	Reviewed/developed in line with Infection Control Action Plan	Information to be obtained at next planned meeting with St. Lukes.	Not part of contract	Not part of contract
<b>IP&amp;C Training delivered</b>	Training programmes in place in line with infection control programme and hygiene code requirements	Training programmes in place in line with infection control programme and hygiene code requirements	Training programmes in place in line with infection control programme and hygiene code requirements	Training programmes in place in line with infection control programme and hygiene code requirements	Monthly mandatory training continues in line with the programme	Not part of contract	Not part of contract
<b>Capital planning/refurbishment projects</b>	Procedures in place linking estates planning to infection control.	Procedures in place linking estates planning to infection control	Infection Prevention and Control Team involved in capital planning/refurbishment projects. Facilities members attend ICC.	3 premises currently undergoing refurbishment that have required IP&C input.	Refurbishment of dirty utility room planned shortly.	Not part of contract	Not part of contract

Work stream	STHFT	SCHFT	SHSCFT	DPS	St Lukes	Claremont	Thornbury
<b>Environmental cleaning issues</b>	Adenosine tri-phosphate (ATP) pilot initiative commenced on both sites in November. This testing indicates the presence of contamination in an environment, such as surfaces and can be used to monitor effectiveness of cleaning.	Following CQC inspection in September cleaning processes have been reviewed and updated.	Cleaning schedules under development for the main buildings. PEAT inspection visits due to start in January 2010	Cleaning Schedule under development for Beech Hill.	No further updates obtained.	Not part of contract	Not part of contract
<b>PEAT Environment Scores 2009</b>	Good	Good	Good	Good for 2008 (closed for refurbishment during inspection programme 2009)	N/A	N/A	N/A

\* Red Alert = 2 cases within 7 days or 4 or more cases within a 28 day rolling period – designated as a possible Serious Untoward Incident (SUI)

\* Amber Alert = 2/3 cases within a 28 day rolling period – designated as a period of increased incidence (PII)

## Appendix 6

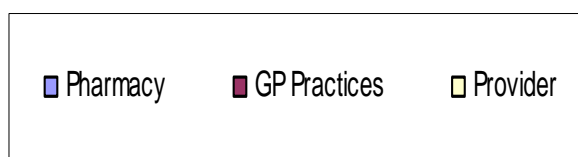
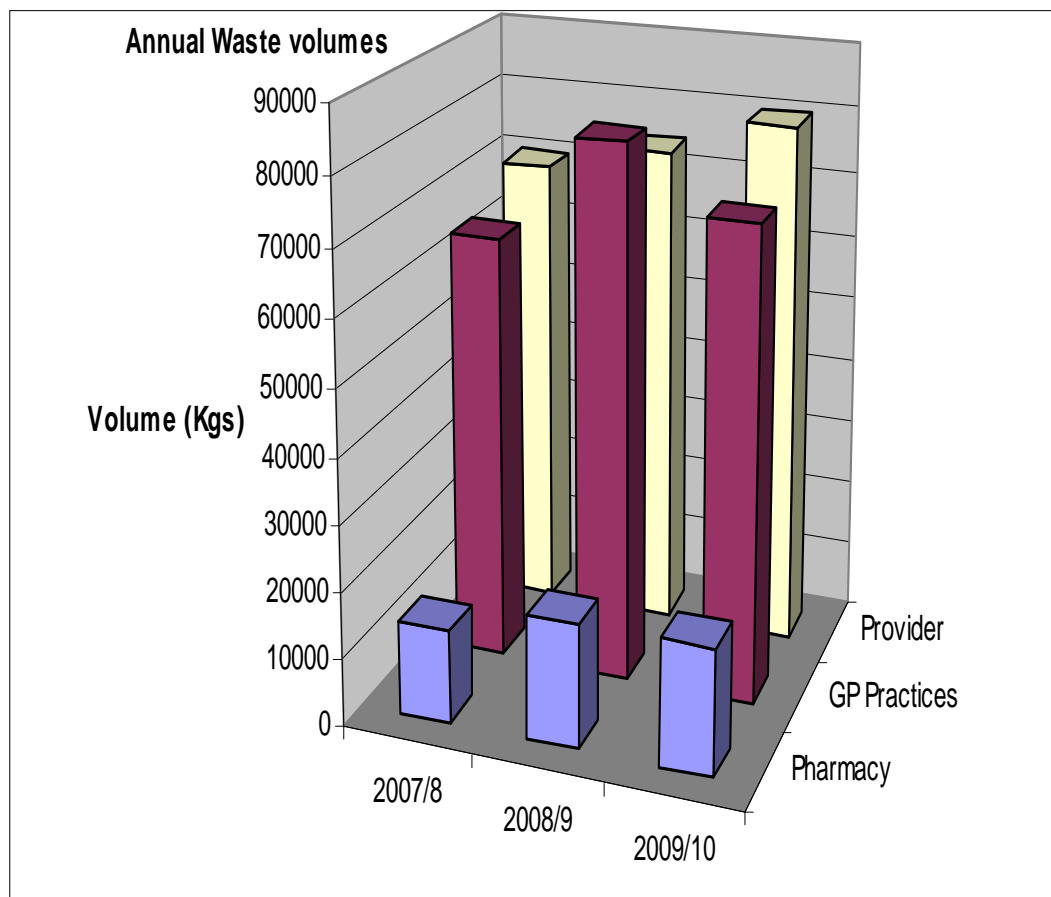
### Sheffield Provider Outbreaks

Organisation	Type of outbreak/organism causing outbreak	Number of outbreaks or incidents in the Year
STHFT Northern General (NG) site and Central Campus (CC)	Norovirus	105 at NG Site and 22 at CC (includes Royal Hallamshire and Weston Park Hospital)- causing bay or wards closures
STHFT	Diarrhoea & Vomiting	10 at NG site and 4 at CC causing ward or bay closures
STHFT	<p>Clostridium difficile Toxin CDT) alert for wards:</p> <p>Red Alert = 2 cases within 7 days or 4 or more cases within a 28 day rolling period – designated as a possible Serious Untoward Incident (SUI)</p> <p>Amber Alert = 2/3 cases within a 28 day rolling period – designated as a period of increased incidence (PII)</p>	<ul style="list-style-type: none"> <li>• Red alert - 9 at NG Site, 5 at CC</li> <li>• Amber alert – 12 at NG Site, 6 at CC</li> </ul>
STHFT	MRSA outbreaks	3 at NG site (1 of caused a ward closure) and 2 at CC
STHFT	Meropenem- resistant Pseudomonas	1 outbreak at CC
SHSC	CDT	2 GP samples reported in the year
Directly Provided Services (DPS), in Intermediate Care Centre (IC) or beds	Norovirus	1 norovirus outbreak causing bed, floor or home closure
DPS in IC or beds	Diarrhoea & Vomiting	8 outbreaks reported causing bed, floor or home closure



**Appendix 8**

**Generated Practice Waste Volume for 2009 – 2010**



**Appendix 9**
**Infection Control Policies**

<b>Policy</b>	<b>Status</b>
Blood and Body Fluid Spillage Management Policy	To be reviewed 12 months prior to completion
Care of the Deceased Person Policy	Sheffield Provider Services Review March 2010
Clostridium Difficile Policy	Review by Provider Services Feb 2010
Community Management of MRSA screening and decolonisation protocol	Will be undertaken when Microbiologist is in post
Decontamination of Medical Devices and Equipment Policy	Review by Provider Services on launch of HTM 01-05 Feb 2010
Environmental Cleaning Policy	Review Jan 2010 (March 2010)
Hand Hygiene Policy	Review by Provider Services June 2011
Isolation (Barrier Nursing) Policy	Review by Provider Services - June 2011
Laboratory Specimen Management Policy	Review March 2010
Laundry Management Policy	Review by Provider Services Jan 2009 (April 2010)
Legionella Management Policy	Review Sept 2010 by Legionella management responsible person
Management of Outbreaks of Infection Policy	Review April 2011
Medical Devices Management Policy	Review by Provider Services Feb 2010 (Nov 2010)
MRSA Management Policy	Review March 2010
Podiatric Surgery MRSA Screening Protocol	Currently awaiting approval by PCT Provider Services
Protective Clothing Policy	Review Feb 2011
Safe Disposal of Sharps and Management of Contamination Injuries Policy	This will be incorporated into the Contaminated Incident Management Pack Review March 2010
Staff Exclusion due to Infection Policy	Review May 09 by Provider Services. Awaiting approval from Chris Stocks and Dr Alison Rimmer prior to approval and ratification
Uniform (Dressing for Work) Policy	Provider Services
Vaccine Transport and Storage Policy	Review July 2010
Healthcare Waste Management Policy	Review March 2010

The following policies will be reviewed by Sheffield PCT Provider Services:

- Aseptic Technique Policy
- Latex Management Policy
- Standard Infection Control Precautions Policy
- SAB's Policy.