

<b>Meeting:</b>	<b>Brighton and Sussex University Hospitals NHS Trust Board of Directors</b>
<b>Date:</b>	<b>23<sup>rd</sup> February 2015</b>
<b>Board Sponsor:</b>	<b>Sherree Fagge Chief Nurse and Director of Infection Prevention and Control</b>
<b>Paper Author:</b>	<b>Valerie Unsworth Nurse Consultant, Deputy Director Infection Prevention and Control</b>
<b>Subject:</b>	<b>Infection Prevention and Control Update</b>

### **Executive summary**

One of the key priorities for 2014/15 is to have zero avoidable MRSA bloodstream infections and no more than 50 cases of *Clostridium difficile* acquired in our hospitals. This extremely challenging target is a reflection of our success at reducing these infections within the Trust over recent years. The *C. difficile* reduction target for 2015/16 has also been published and the Trust target is to have no more than 46 cases

The 2014/15 and 2015/16 reduction targets for MRSA bacteraemias remains zero avoidable infections.

Performance against these deliberately challenging targets is monitored nationally and published on a weekly basis both by BSUH on its public-facing website and by the Department of Health.

The weekly Infection Prevention and Control (IPC) meeting reviews all Trust acquired cases to identify lessons learnt and to ensure best practice is disseminated across the hospitals.

This paper summarises the incidence of MRSA bacteraemias and *C. difficile* and the actions which have been and are being taken to reduce the incidence further.

Key actions on both MRSA, *C. difficile* and other infection prevention issues discussed at the Infection Prevention and Control Action Group (IPAG) weekly meetings include:

- Working with colleagues to safely manage the aspergillus risks associated with buildings works from decant and 3Ts.
- An action plan has been compiled in response to the outbreak on Haematology Oncology. This will be monitored via the Safe Water Committee with close involvement from Infection Prevention & Control.
- An overarching action plan has been developed for *Clostridium difficile*.
- MRSA action plan – following a review of 2012/13 and 2013/14 cases an overarching action plan has been developed which is monitored by IPC and at IPAG meetings.
- An ongoing project to validate the Trust's hand hygiene scores by methods such as peer review, validation checks and a formalised methodology for auditing.
- Work with Facilities and the soft FM provider to ensure that patients are nursed in a clean, safe environment.
- A gap analysis is being developed in response to the Public Health England toolkit for the early detection, management and control of carbapenemase-producing Enterobacteriaceae.

Section 7 of the report also describes the actions taken in respect of Norovirus at the Princess Royal Hospital and a further verbal update will be given at the Board meeting.

<b>Links to strategic objectives</b>	<p>Best and Safest Care ✓ High Performing ✓</p> <p>Reduce the incidence of MRSA and <i>Clostridium difficile</i> and other health care acquired infections (HCAI) on our wards.</p> <p>The reduction target for 2014/15 is to have zero avoidable MRSA bloodstream infections and no more than 50 cases of <i>Clostridium difficile</i> acquired in our hospitals.</p>
<b>Identified risks and risk management actions</b>	<p>Risk of not meeting 2014/15 reduction targets</p> <p>Risk of cross infection or outbreak</p> <p>Risk of patient harm</p>
<b>Resource implications</b>	Potential financial penalties if targets are not met
<b>Legal implications</b>	<p>Health Act 2008</p> <p>Infection prevention is a key Trust and national performance priority and patient safety issue</p>
<b>Report history</b>	Nil
<b>Appendices</b>	Nil

#### **Action required by the Board**

The Board is asked to note the incidence of infections monitored both nationally and locally and the priorities of the IPC team over the coming months.

The Board is asked to note the ongoing cleaning concerns. Work continues with Facilities and the soft FM provider to ensure that patients are nursed in a clean, safe environment and implement proactive, sustainable measures to support infection prevention and control.

The Board is asked to note the aspergillus risk associated with decant / 3Ts and that work is underway to embed the role of the Infection Prevention and Control Team in the planning of all construction work on BSUH sites.

## Report to the Board of Directors, 23<sup>rd</sup> February 2015 Infection Prevention and Control

### 1. Introduction

One of the key priorities for 2014/15 is to have zero avoidable MRSA bloodstream infections and no more than 50 cases of *Clostridium difficile* acquired in our hospitals. This extremely challenging target is a reflection of our success at reducing these infections within the Trust over recent years.

Performance against these deliberately challenging targets is monitored nationally and published on a weekly basis both by BSUH on its public-facing website and by the Department of Health.

The weekly Infection Prevention and Control (IPC) meeting reviews all Trust acquired cases to identify lessons learnt and to ensure best practice is disseminated across the hospitals.

This paper summarises the incidence of MRSA bacteraemias and *C. difficile* and the actions which have been and are being taken to reduce the incidence further

Key actions on both MRSA, *C. difficile* and other infection prevention issues discussed at the Infection Prevention and Control Action Group (IPAG) weekly meetings include:

- Working with colleagues to safely manage the aspergillus risks associated with buildings works from decant and 3Ts.
- An action plan has been compiled in response to the outbreak on Haematology Oncology. This will be monitored via the safe Water Committee with close involvement from Infection Prevention & Control.
- An overarching action plan has been developed for *Clostridium difficile*.
- MRSA action plan – following a review of 2012/13 and 2013/14 cases an overarching action plan has been developed which is monitored by IPC and at IPAG meetings.
- An ongoing project to validate the Trust's hand hygiene scores by methods such as peer review, validation checks and a formalised methodology for auditing.
- Work with Facilities and the soft FM provider to address the continued concerns being raised about environmental cleaning.
- A gap analysis is being developed in response to the Public Health England toolkit for the early detection, management and control of carbapenemase-producing Enterobacteriaceae.

### 2. Methicillin resistant *Staphylococcus aureus* (MRSA)

The reduction target for 2013/14 and for 2014/15 is zero avoidable Trust acquired infections. These infections are described as cases where MRSA is isolated from the blood stream (by blood culture) and the infection is allocated to the Trust by the Post Infection review (PIR) process.

The incidence of MRSA blood stream infections attributed to our hospitals is shown in the table below:

Year / Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
2009/10	2	3	3	1	0	1	1	0	0	0	3	0	12
2010/11	0	2	1	2	0	0	1	0	0	1	0	0	7
2011/12	1	0	0	0	1	1	0	0	1	0	0	1	5
2012/13	0	0	0	0	0	2	1	0	1	0	1	1	6
2013/14	3	0	0	0	0	0	2	1	0	0	0	0	6
2014/15 YTD	0	1*	1	0	0	1*	0	0**	0	1	0	0	2

\*contaminated sample, no evidence of infection

There have been two MRSA blood infections which were considered to be unavoidable as there were no lapses in care identified in either case. There have also been two cases of contaminated blood cultures (MRSA grown in a blood culture bottle but no evidence of infection).

\*\*In November a patient developed a MRSA bacteraemia, the source of which was thought to be surgery many years previously. No lapses in care were identified for either BSUH or for the CCG. BSUH have just been informed that this case has been attributed to third party i.e. neither the Trust nor the CCG.

All MRSA bacteraemia infections have a Post Infection Review (PIR) and are discussed in depth at the weekly Infection Prevention Action Group (IPAG) meeting. An overarching action plan has been compiled from the actions from each MRSA bacteraemia to address the issue of MRSA bacteraemias at BSUH. This action plan is monitored by the weekly IPAG meeting.

### MRSA screening

All patients admitted to BSUH are screened to see if they are colonised with MRSA. Any patients found to be MRSA positive are then given MRSA suppression therapy to reduce their risk of developing an MRSA infection. Screening compliance is audited and reported at the weekly IPC meeting. The results show a sustained increase in compliance which is usually greater than 97%. Further work is planned to audit the uptake of MRSA suppression therapy after a patient is identified as being colonised.

Once screened patients who are found to be colonised with MRSA are given suppression therapy to reduce bacterial load and minimise the risk of developing an infection.

### 3. *Clostridium difficile*

There has been a consistent year on year reduction in the number of cases of *C. difficile*. BSUH has achieved all the *C. difficile* reduction targets since 2009/10 apart from the 2013/14 reduction target which was to have no more than 34 Trust acquired cases (48 cases) although this again represented a year on year reduction in cases.

From 2014/15 NHS England has placed an emphasis on lapses in care. For the first time a case with no lapses in care may not incur financial penalties (at the discretion of the commissioner). They have also placed a focus on ensuring that the published *C. difficile* figures accurately represent the true burden of *C. difficile* within the organisation.

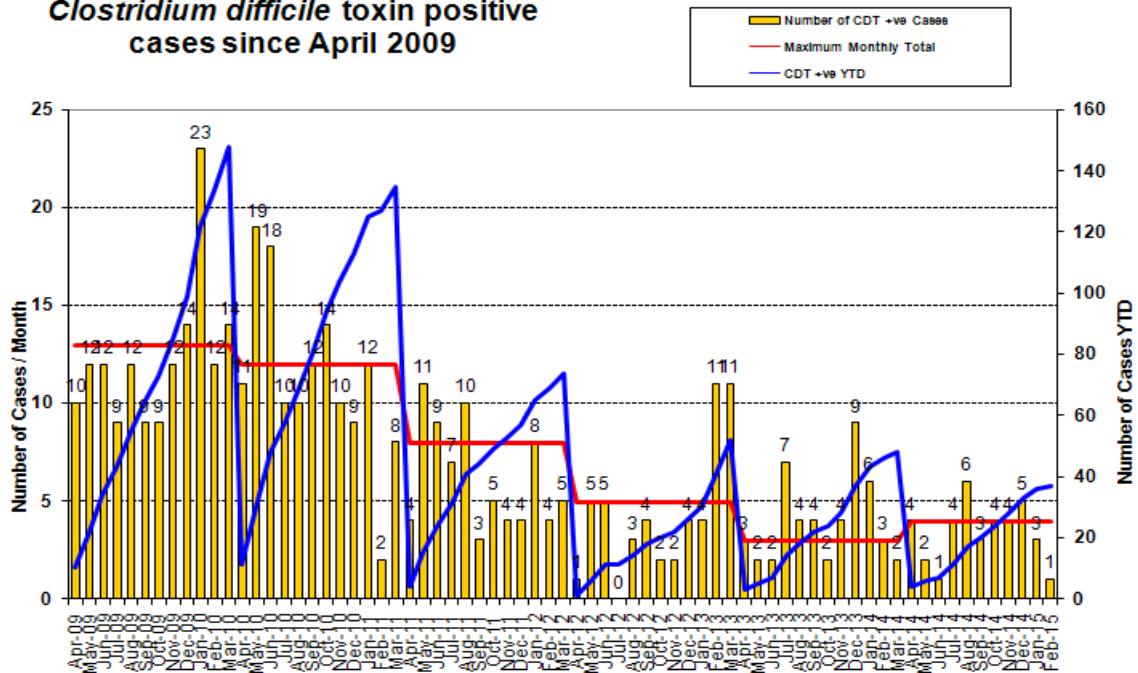
The incidence of *C. difficile* in our hospitals from 2009/10 to 2014/15 YTD is shown in the table below:

Year / Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Totals
<b>2009/10</b>	10	12	12	9	12	9	8	12	14	23	12	14	<b>147</b>
<b>2010/11</b>	11	19	18	10	10	12	14	10	9	12	2	8	<b>135</b>
<b>2011/12</b>	4	11	9	7	10	3	5	4	4	8	4	5	<b>74</b>
<b>2012/13</b>	1	5	5	0	3	4	2	2	4	4	11	11	<b>52</b>
<b>2013/14</b>	3	2	2	7	4	4	2	4	9	6	3	2	<b>48</b>
<b>2014/15 YTD</b>	4	2	1	4	6	3	4	4	5	3	1		<b>37</b>

***C. difficile***: Of the 37 cases YTD, eight are considered avoidable infections (in one there was evidence of cross infection, one inappropriate management, two inappropriate samples, four inappropriate antibiotic prescribing / management).

An overarching action plan has been compiled from the actions from each case of *C. difficile* infection which is monitored by the weekly IPAG meeting.

### Clostridium difficile toxin positive cases since April 2009



## 7. Norovirus

Norovirus is a highly infectious virus which can cause diarrhoea and / or vomiting. Norovirus can spread very rapidly in 'closed' environments such as hospitals, schools, cruise ships and prisons. Norovirus is not normally dangerous but can be more severe in vulnerable patients.

If a ward is affected by norovirus control measures are introduced including heightened awareness of standard infection prevention and control precautions, excluding symptomatic staff and visitors and extra cleaning. Wards with norovirus are normally closed to new admissions to prevent exposing new patients to the infection. The IPC team review closed wards on a daily basis and re-open when patients are asymptomatic and there are no new cases.

The following table shows the number of confirmed / suspected norovirus outbreaks which caused a ward to be closed in 2014/15 YTD. Norovirus is more common in the winter months (it is sometimes called the 'winter vomiting disease') although it can be seen all year round. There have been several recent outbreaks which correspond to an increase in the local community as confirmed by Public Health England.

In February four wards were closed at PRH with confirmed norovirus, Balcombe, Pyecombe, Ardingly and Ansty and all PRH wards were closed to visitors. A high number of patients and staff have been affected suggesting a highly infectious strain. Full IPC measures are in place and the IPC continue to review daily.

2014/15 YTD	Apr	Ma y	Jun	Jul	Au g	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Totals
No of outbreaks	0	2	4	2	3	1	0	0	0	0	4		16
No of patients affected	0	21	21	23	36	2	0	0	0	0			103
Number of staff affected	0	7	5	5	6	1	0	0	0	0			24
Bed days lost	0	2	20	5	61	3	0	0	0	0			91

## 8. IPC Mandatory Training.

IPC have developed a workbook and provided online training to support uptake of training as well as providing regular lectures organised by Learning and Development.

## 9. IPC team priorities

Based on the work undertaken and the issues going forward the priorities for the IPC team over the next few months are:

- Work with Capital Development / 3Ts colleagues to ensure infection prevention and control issues are considered when undertaking and planning building works.
- Expanding the audit programme to audit key IPC policies including glove misuse, MRSA suppression therapy and an audit to determine if all patients with suspected infectious diarrhoea have had a stool sample sent (as per NHS England guidance)
- Monitor the Haematology Oncology outbreak action plan through the Safe Water Committee
- Work with all staff to embed the *C. difficile* action plan into practice
- Work with all staff to implement the overarching MRSA bacteraemia action plan to prevent future infections and contaminated samples
- An ongoing project to validate the Trust's hand hygiene scores
- Advise Facilities and the soft FM provider to ensure that patients are nursed in a clean, safe environment

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**February 2015**