

Meeting / Committee:	Board of Directors	Meeting Date:	31 March 2014
-----------------------------	--------------------	----------------------	---------------

This paper is for: (Only 1 column to be marked with x as appropriate)	Action/Decision	Assurance X	Information
--	-----------------	----------------	-------------

Title:	Healthcare-associated infection report for February 2015
---------------	--

Purpose:	To provide performance information on healthcare-associated infections.
-----------------	---

Summary:	<p>This report summarises surveillance information on <i>Clostridium difficile</i>-associated diarrhoea, MRSA and MSSA bacteraemia, bacteraemia due to glycopeptide-resistant enterococci, ESBL-producing coliform infections and other important healthcare-associated infections for the month of February 2015.</p> <ul style="list-style-type: none"> • The <i>C. difficile</i>-associated diarrhoea target for 2014/15 is to have no more than 49 Trust-apportioned cases of <i>C. difficile</i> among patients aged over 2 years. There have been 11 trust-apportioned cases in February 2015, with a total of 67 trust-apportioned cases in the first 11 months of 2014/2015. • There is no official MRSA bacteraemia target for 2014/15. There were 0 trust-assigned cases in February 2015, with a total of 4 trust-assigned cases for the first 11 months of 2014/15. • There is no official MSSA bacteraemia target for 2014/15. There has been 1 trust-apportioned case in February 2015, with a total of 24 trust-apportioned cases for the first 11 months of 2014/15.
-----------------	---

Prepared By:	Alison Peevor Assistant director of nursing (Deputy DIPC)	Presented By:	Ruth Holt Director of nursing / DIPC
---------------------	--	----------------------	---

Recommendation:	<p>The incidence of HCAI within the Trust is of concern.</p> <p>The Board are asked to note the current position in respect of HCAI and for their support for the actions being taken.</p> <p>A further report will be presented to the Board in April 2015.</p>
------------------------	--

Implications (mark with x in appropriate column(s))	Legal X	Financial X	Clinical X	Strategic X	Risk & Assurance X
--	------------	----------------	---------------	----------------	-----------------------

HEALTHCARE ASSOCIATED INFECTION REPORT (DATA TO END OF FEBRUARY 2015)

1. SURVEILLANCE DATA

1.1 *Clostridium difficile*

<i>C.difficile</i>	Annual total 13/14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	Total 2014/15 to date	Target for 2014/15
Total cases	114	10	11	15	11	10	9	13	18	14	17	13	16	147	NA
Not trust apportioned	57	7	7	8	7	6	8	9	12	7	4	7	5	80	NA
Trust apportioned	57	3	4	7	4	4	1	4	6	7	13	6	11	67	49
- JCUH	46	2	2	5	4	2	1	3	6	4	13	6	7	53	
-FHN	3	0	2	1	0	2	0	1	0	2	0	0	2	10	
-Carters	2	0	0	1	0	0	0	0	0	1	0	0	0	2	
-Redcar	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
-East Cleveland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
-Guisborough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
-Rutson	3	0	0	0	0	0	0	0	0	0	0	0	1	1	
-Friary	1	0	0	0	0	0	0	0	0	0	0	0	1	1	
-Lambert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

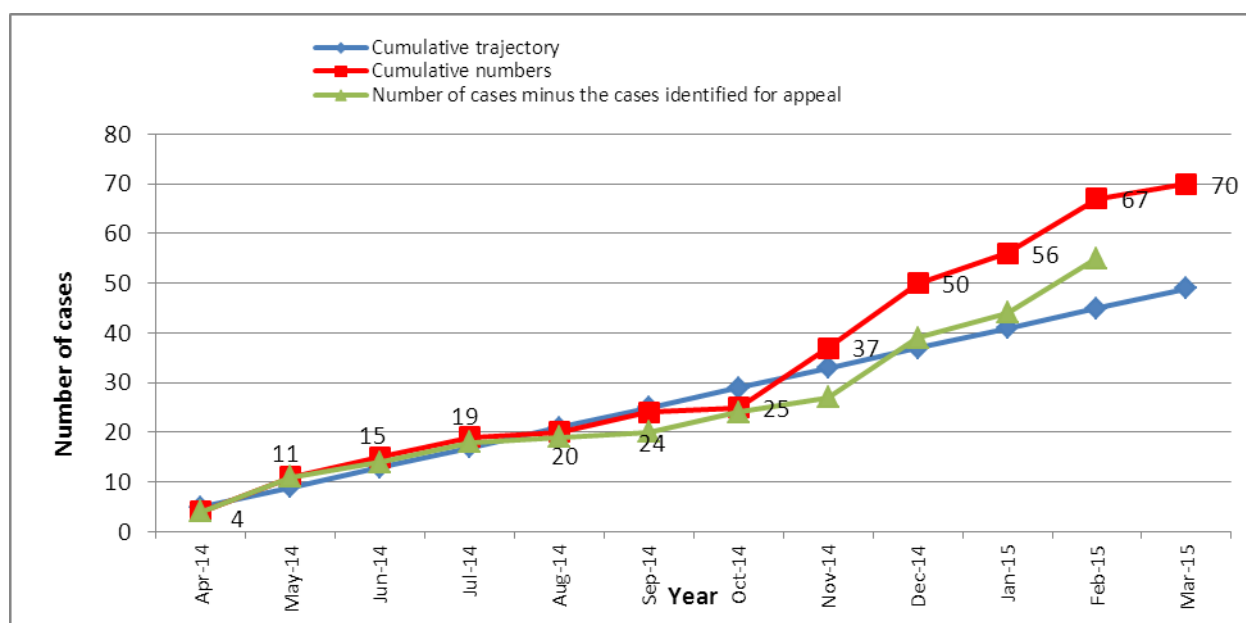
There have been 16 cases of *C.difficile* infection in February 2015, 11 of which are classed as Trust-apportioned. The annual target is to have no more than 49 Trust-apportioned cases. At the end of February 2015 we had exceeded the annual target by 18 cases.

Deaths within 30 days after *C.difficile* diagnosis: for January 2015, 2/13 patients died during this period. Since April 2009, 216/1069 (20%) have died during the 30 day follow-up period.

Thirteen cases have been identified as suitable for appeal and the Trust is working with Hambleton, Richmondshire & Whitby and South Tees CCG's to develop a locally agreed appeals process.

There was a cluster of 4 cases of *C.difficile* infection on two wards in January/February 2015 and cluster meetings led by the IPC Doctor have taken place, all appropriate actions have been agreed.

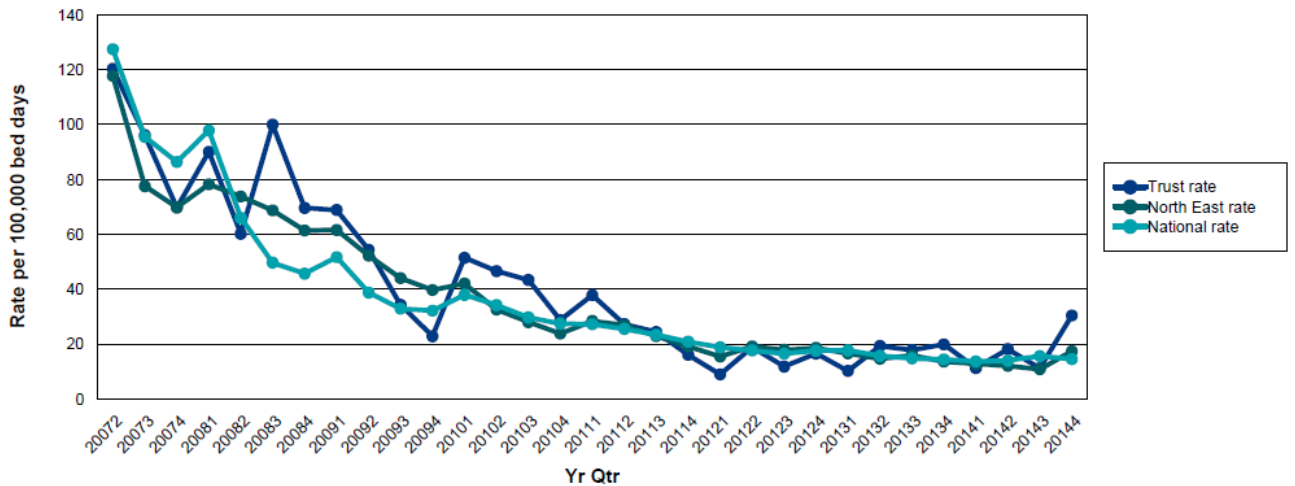
Graph 1: Cumulative trajectory and number of cases 1st April to 28th February 2015.



Graph 2: Trust, regional and national comparison data for *C.difficile* cases

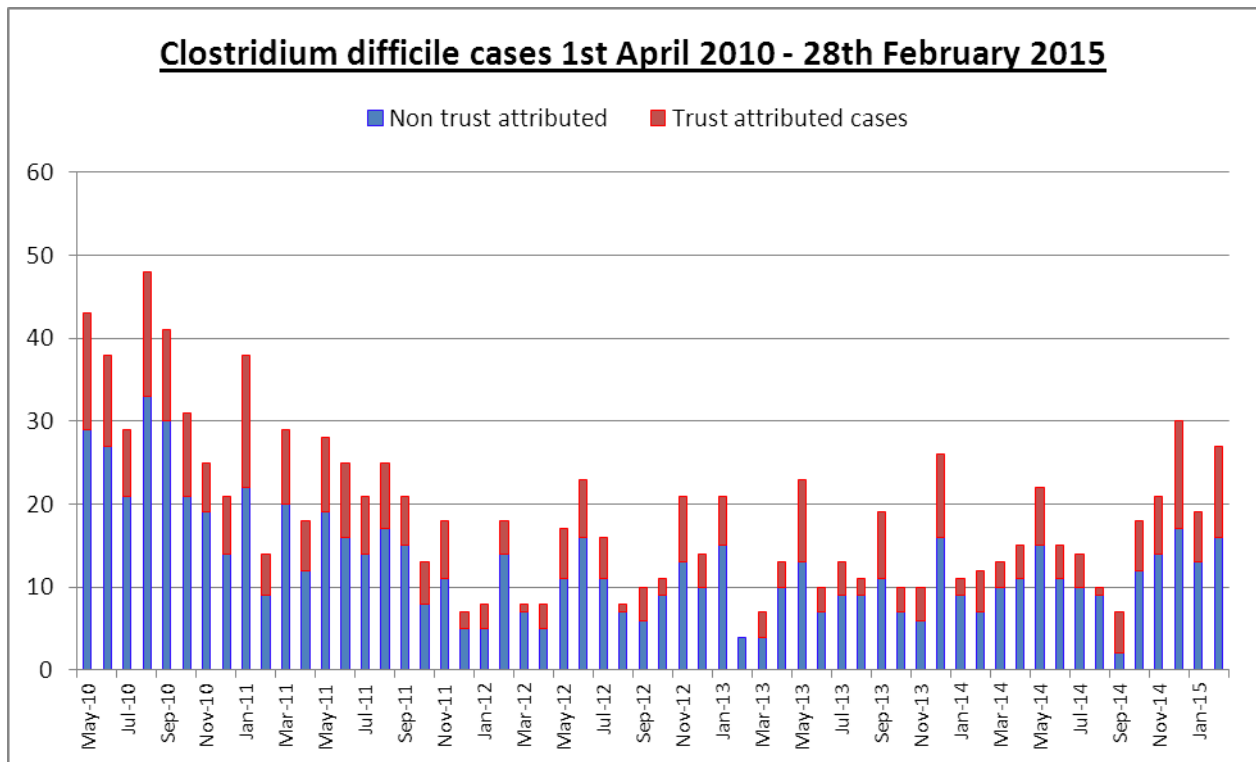
The graph below provides the most up-to-date data from Public Health England comparing the incidence of trust-apportioned *C difficile* cases with the regional and national average incidence to the end of December 2014.

Rate of Trust apportioned CDI per 100,000 bed days - National, Regional and Trust Comparison



Rate based on trust apportioned cases only.
Calculated using KH03 data

Graph 3: Total number of *C.difficile* cases by month from 1st April 2010 to 31st January 2015.



The current position in respect of *Clostridium difficile* continues to cause considerable concern causing patient safety and reputational risk. The Quality Assurance committee have asked for further assurance regarding the actions being taken to prevent CDI and received a presentation at the February meeting from the deputy DIPC and the Trust's Hotel Services Manager. A report will be given on a monthly basis going forward.

C.difficile recovery plan

The following actions were completed in February / early March 2015:

Cleaning

- A 3 day audit commissioned by STHFT, Endeavour and Carillion commenced on the 23rd February 2015 undertaken by Mr T Hubbard, Credits for Cleaning.

Communication

- Revision of the HCAI investigation responsibility matrix for key Trust staff which will be ratified at March's infection prevention action group.

Hand hygiene

- 100% return rate for the monthly hand hygiene audit was achieved in February 2015 with an overall compliance rate of 86%.
- We are working to ensure that all clinical staff complete a hand hygiene competency by 31st March 2015.
- Commissioned additional IPCN hours to support the completion of hand hygiene competencies.

Antimicrobial prescribing

- The following table provides centre averages from the antibiotic prescribing 'A RED' audit results for February 2015.
- Overall Trust average for the use of appropriate antibiotic was 98.4%. This is the most important single indicator in respect of antibiotic prescribing.
- In terms of record keeping, the overall Trust compliance of the documenting the 'reason for antibiotics' within either the drug sheet or medical notes was 91% and 'end date' was 66%. Daily review compliance was 74%.
- Detailed ward data is sent to chiefs of service, managing directors and heads of nursing.
- This was a specific area of focus from Professor Wilcox's review and further work is being done to improve our antibiotic prescribing and the information collected.

Pharmacy "A RED" Antibiotic Audit and JCUH Antibiotic Ward Round Audit Results by Centre (February 2015)																		
Centre	No. Pts in Centre	% Audited	% of Audited Pts on Antibiotics	No. Antibiotics	% Oral	% Enteral	% Parenteral / Nebulised	A		R			E			D	No. Antibiotic Courses Reported to JCUH Antibiotic Ward Round	% Antibiotic Courses Deemed Acceptable by JCUH Antibiotic Ward Round Audit
								No. Pts with Antibiotic ALLERGIES	% where antibiotic OK for ALLERGY	% antibiotic courses with REASON on chart	% antibiotic courses with REASON in notes	% antibiotic courses with REASON in either document	% antibiotic courses with END DATE (or review date) on chart	% antibiotic courses with END DATE (or review date) in notes	% antibiotic courses with END DATE (or review date) in either document	% of antibiotic pts with DAILY REVIEW		
Integrated Medical Care	434	95.2	33.2	158	50	0.6	49.4	13	100	62	84.1	89.9	54.4	30.6	68.4	70.9	184	97.8
Speciality Medicines	91	95.6	37.9	45	44.4	0	55.6	5	100	53.3	77.8	86.7	51.1	13.3	51.1	84.8	56	98.2
Surgical Services	130	90.8	44.1	66	53	0	47	7	100	60.6	78.8	89.4	45.5	39.4	59.1	70.2	86	100
Tertiary Services	173	97.1	24.4	45	42.2	2.2	55.6	9	88.9	77.8	75.6	91.1	71.1	40	80	75.8	51	98
Trauma, Orthopaedics, Theatres & Anaesthetics	108	93.5	22.8	36	44.4	0	55.6	8	87.5	52.8	88.2	88.6	52.8	20.6	60	52.4	31	96.8
Women & Children	14	100	57.1	8	50	0	50	3	100	87.5	87.5	100	75	32.5	75	87.5	11	100

RAG Rating Key

Red is up to 59.9%; Amber is 60-89.9%; and Green is 90% or over

Performance monitoring

- The third external assurance review by Professor Mark Wilcox took place on 17th February 15 (see appendix 1). The review included meeting with senior staff in clinical centres and dedicated sessions for cleaning and antibiotic prescribing. Members of the Board received verbal feedback from Professor Wilcox on the day and a written report was received 1st March 15. Key areas included focus on diarrhoea assessment; revision of antibiotic prescribing audit process; review location of high risk patients in relation to the estate and increased shared learning with the CCG. A detailed recovery plan has been developed (see appendix 2).
- Julie Halliday, an experienced director of nursing and DIPC, joined the Trust on the 17th of February to work with the DIPC and focus on the reduction of *C.difficile* with the organisation for 3 days per week for 3 months.
- A Chair led *C.difficile* executive overview group has continued to monitor action to reduce *C.difficile*.
- Weekly performance meetings, chaired by the DIPC, with members of the centre triumvirate have continued.
- We are working with South Tees / Hambleton, Richmondshire and Whitby CCGs to confirm an appeals process. The first appeals panel will take place on the 22nd April 2015.
- 100% return of the weekly clinical matron HCAI monitoring checklist. Actions identified within the audits are actioned by clinical matrons.
- Centre led clinical incident panels have commenced.
- We are developing a programme to recognise exemplary IPC compliance / number of days without any attributed *C.difficile* cases.

The following actions are planned for March 2015

Cleaning

A trial of chlorine/sporicidal wipes for use on patient equipment within isolation rooms. The trial will cover all inpatient areas.

Communication

- Development and implementation of our 'focus on five' campaign with month one focus around isolation / diarrhoea management. This will be launched in April 2015.
- HCAI awareness/engagement events planned for ward clerks.

Hand hygiene

- Focus on the completion of hand hygiene competencies for all clinical staff by 31st March 2015.
- Review of hand hygiene audit process is being completed to focus on peer audit rather than self-audit.

Antibiotic prescribing

- In line with the overall *C.difficile* recovery plan, there will be a focus on the revision of the antibiotic prescribing audit programme.

Performance monitoring

- Review of the Trust's HCAI governance and meeting structure.
- The CDI Recovery Plan has been revised following Professor Mark Wilcox review and is attached to this report (Appendix 2).
- The CDI Assurance Framework has been updated (Appendix 3)

1.2 MRSA bacteraemia

MRSA	Annual total 13/14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	Total 2014/15 to date	Target for 2014/15
Total cases	8	3	0	0	1	1	0	2	0	2	1	2	0	9	NA
Not trust assigned	4	1	0	0	0	0	0	1	0	2	1	1	0	5	NA
Trust assigned	4	2	0	0	1	1	0	1	0	0	0	1	0	4	NA

There were 0 cases of MRSA bacteraemia in February 2015.

1.3 MSSA bacteraemia

MSSA	Annual total 13/14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	Total 2014/15 to date	Target for 2014/15
Total cases	92	8	6	16	11	8	9	14	8	8	9	5	8	102	NA
Not trust apportioned	64	5	5	12	8	7	8	10	7	5	5	4	7	78	NA
Trust apportioned	28	3	1	4	3	1	1	4	1	3	4	1	1	24	NA

There were 8 cases of MSSA bacteraemia in February 2015; 1 of which was classed as Trust-apportioned. Root cause analyses have been requested from the clinical teams concerned and any lessons learnt will be discussed at directorate and centre meetings.

1.4 Surveillance for other healthcare-associated infections

	Total for 13/14	February 2015	Total 14/15
Bacteraemia due to glycopeptide-resistant enterococci	6	1	3
Bacteraemia due to <i>E. coli</i>	334	25	360
ESBL producing coliform infections	960	86	963
• sample taken in community	591	57	639
• sample taken in our trust	369	29	324
• bacteraemias	17	1	20
Other alert organisms	1	0	0

2. OUTBREAKS

Diarrhoea & vomiting outbreaks	Annual total 13/14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	July 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	Total 14/15 to date
Total number	2	0	0	0	0	0	0	1	1	0	0	0	0	1	3
Total number of patients affected	43	0	0	0	0	0	0	8	5	0	0	0	0	9	22
Total number of staff affected	8	5	0	0	0	0	0	4	3	0	0	0	0	11	18

3. HAND HYGEINE

The following table provides the last three months of data using the revised data collection tool and includes the centres overall return rate and the average compliance data. Wards and departments will have their individual compliance data.

Centre	Overall return %			Average % compliance		
	Dec 14	Jan 15	Feb 15	Dec 14	Jan 15	Feb 15
Clinical & Diagnostics	50%↑	100%	100%	97%↑	98%↑	92%↓
Integrated Medicine	54%↓	100%	100%	92%↑	84%↓	94%↑
Specialty Medicine	47%↓	100%	100%	73%↓	76%↑	83%↑
Surgery	43%↓	100%	100%	87%↑	86%↓	84%↓
Tertiary Services	60%=	100%	100%	85%↑	79%↓	83%↑
Trauma & Anaesthetics	47%↓	100%	100%	88%↑	81%↓	88%↑
Women & Children	53%↓	100%	100%	71%↓	80%↑	76%↑
Trust wide data	51%↓	100%	100%	85%↑	84%↓	86%↑

Hand hygiene competency assessments were introduced in 2013. The following table provides the latest centre compliance data up to 28th February 2015. The designated infection prevention and control link practitioner is responsible for the completing hand hygiene competencies – it is important that each clinical area has an identified practitioner who has the agreed 7.5 hours per month to complete these assessments. The number of clinical staff has been revised following further review of workforce data. Medical staff (Trust and deanery) and student data has been separated.

Centre	Total number of clinical staff	Total number of clinical staff completed hand hygiene competency	% of clinical staff completed hand hygiene competency
Clinical & Diagnostic Services	1136	501	44%
Integrated Medical Care	1510	848	56%
Specialty Medicines	478	196	41%
Surgery	509	224	44%
Tertiary Services	648	285	44%
Trauma and theatres	942	513	54%
Women and children	801	465	58%
Doctors (Trust)	579	117	20%
FY1 & 2	97	7	7%
Registrars	TBC	TBC	TBC
TOTAL TRUST COMPLIANCE	6700	3156	47%

There have been an addition 146 students (nurses, midwives, OPD's and physiotherapists) who have completed hand hygiene competencies.

6. ENDOSCOPE DECONTAMINATION INCIDENT

An incident has occurred with endoscopy where there is evidence that bronchoscopes from the intensive care units were not manually cleaned before automated cleaning in the endoscope washer. The processes in the central endoscope reprocessing unit are being improved to minimise the risk of this happening again.

The lead nurse for decontamination has continued to work with the endoscopy unit to provide advice and support to the decontamination staff, complete further sampling and audit practice.

A review of the Trust's decontamination processes has been commissioned from Wayne Spencer, Spencer Nickson Ltd, Healthcare Facilities Consultants. The review will include endoscopy but not be restricted to endoscopy and will take place on the 8th and 9th of April.

7. OUTBREAK OF MULTI-DRUG-RESISTANT PSEUDOMONAS AERUGINOSA INFECTION IN ICU2/3, GHDU, WARD 4 AND 24HDU

An outbreak of multi-drug-resistant *Pseudomonas aeruginosa* infection has occurred on ICU2/3, GHDU, ward 4 and ward 24HDU. There are two strains of this organism identified one of which is a true carbapenemase-producing organism. Meetings are continuing on a regular basis and a large number of actions have been carried out. The outbreak is not linked to the water supply and probably represents patient-to-patient transmission.

8. RECOMMENDATIONS

The incidence of HCAI within the Trust is of concern.

The Transformation Board are asked to note the current position in respect of HCAI and for their support for the actions being taken.

A further report will be presented to the Board in April 2015

RUTH HOLT
DIRECTOR OF NURSING & DIPC

Appendix 1 – Professor Mark Wilcox External Review - Report



Middlesbrough report
February 2015.docx

Appendix 2 – *C.difficile* recovery plan



Version 18 Final draft
Clostridium difficile.ac

Appendix 3 – *C.difficile* assurance framework



C. difficile assuranec
framework version 7