

<b>Meeting / Committee:</b>	Board of Directors	<b>Meeting Date:</b>	24 February 2015
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<b>This paper is for: (Only 1 column to be marked with x as appropriate)</b>	Action/Decision	Assurance X	Information
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<b>Title:</b>	Healthcare-associated infection report for January 2015
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<b>Purpose:</b>	The purpose of this report is to provide performance information on healthcare-associated infections.
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<b>Summary:</b>	<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 January 2015.</p> <ul style="list-style-type: none"> <li>• 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 6 trust-apportioned cases in January 2015, with a total of 56 trust-apportioned cases in the first 10 months of 2014/2015.</li> <li>• There is no official MRSA bacteraemia target for 2014/15. There was 1 trust-assigned case in January 2015, with a total of 4 trust-assigned cases for the first 10 months of 2014/15.</li> <li>• There is no official MSSA bacteraemia target for 2014/15. There has been 1 trust-apportioned cases in January 2015, with a total of 23 trust-apportioned cases for the first 10 months of 2014/15</li> </ul>
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<b>Prepared By:</b>	Ruth Holt Director of nursing Alison Peevor Assistant director of nursing (Deputy DIPC)	<b>Presented By:</b>	Ruth Holt Director of nursing
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<b>Recommendation:</b>	<p>The incidence of HCAI within the Trust is of significant concern. 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 March 2015</p>
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<b>Implications (mark with x in appropriate column(s))</b>	Legal X	Financial X	Clinical X	Strategic X	Risk & Assurance X
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# HEALTHCARE ASSOCIATED INFECTION REPORT (DATA TO END OF JANUARY 2015)

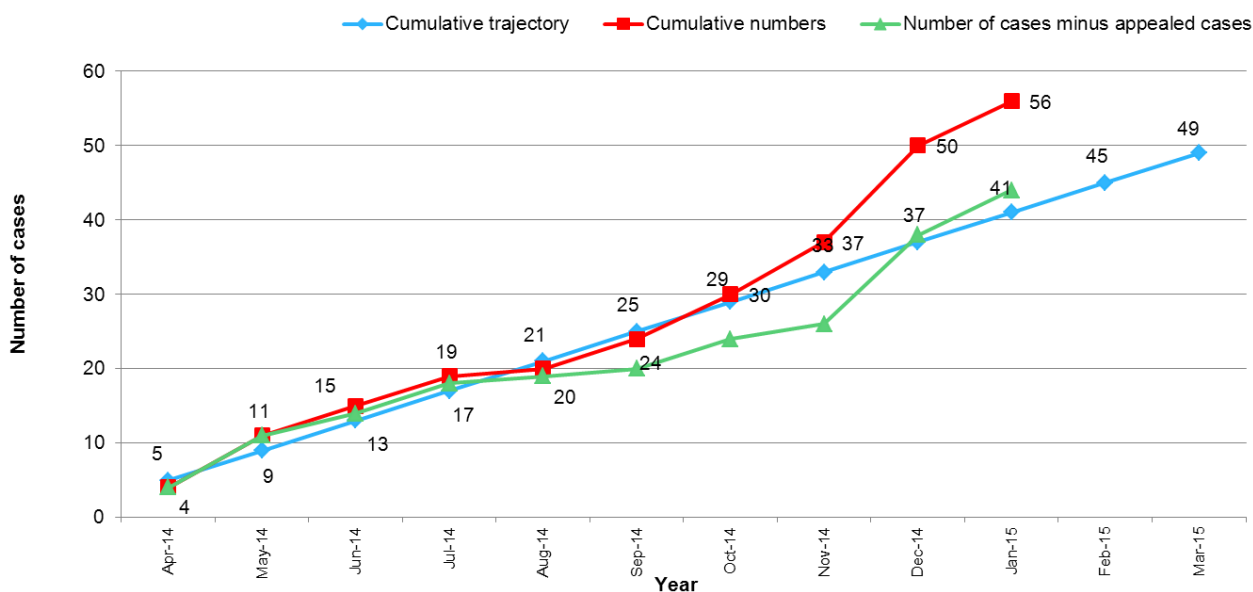
## 1. CLOSTRIDIUM DIFFICILE

<b>C.difficile</b>	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	Total 14/15 to date	Target for 14/15
Total cases	114	7	10	11	15	11	10	9	13	18	14	17	13	131	NA
Not trust apportioned	57	2	7	7	8	7	6	8	9	12	7	4	7	75	NA
Trust apportioned	57	5	3	4	7	4	4	1	4	6	7	13	6	56	<b>49</b>
- JCUH	46	4	2	2	5	4	2	1	3	6	4	13	6	46	
-FHN	3	0	0	2	1	0	2	0	1	0	2	0	0	8	
-Carters	2	1	0	0	1	0	0	0	0	0	1	0	0	2	
-Redcar	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
-East CI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
-Guis	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	0	0	
-Friary	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
-Lambert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

There have been 13 cases of *C.difficile* infection in January 2015, 6 of which are classed as Trust-apportioned. The annual target is to have no more than 49 Trust-apportioned cases. At the end of January 2015 we had exceeded the annual target by 7 cases. Deaths within 30 days after *C.difficile* diagnosis: for December 2014, 3/17 patients died during this period. Since April 2009, 214/1056 (20%) have died during the 30 day follow-up period. Seven cases are subject to appeal (six to South Tees CCG and one to Hambleton, Richmondshire and Whitby CCG). There was a cluster of 3 cases of *C.difficile* infection on one ward in January 2015.

Graph 1: Cumulative trajectory, number of cases and number of cases minus the appealed cases - 1<sup>st</sup> April to 31<sup>st</sup> January 2015.

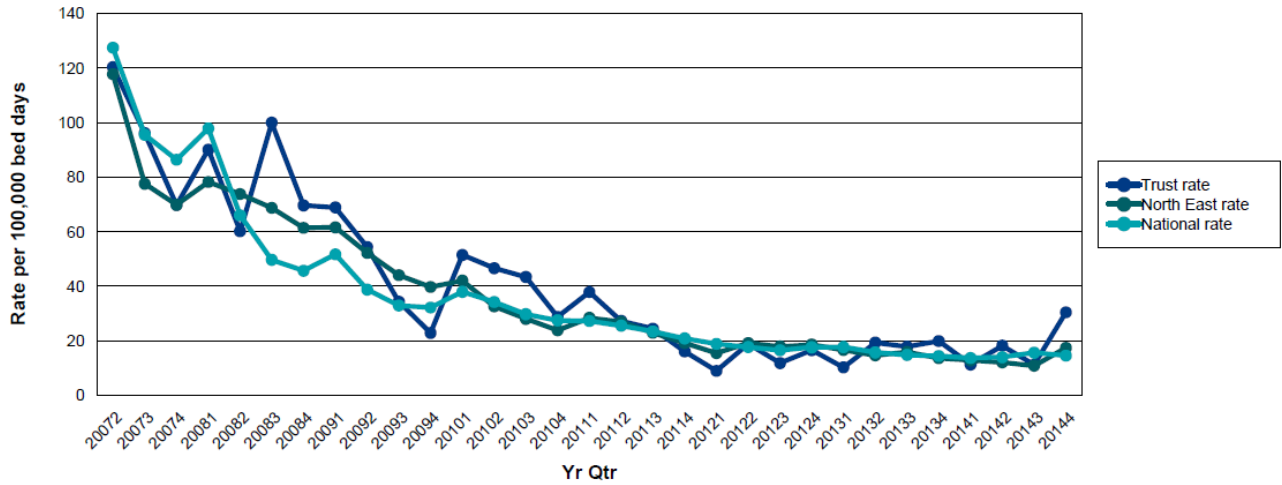
**Clostridium difficile - cumulative trajectory and number of cases**  
**April 14- Jan 15**



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

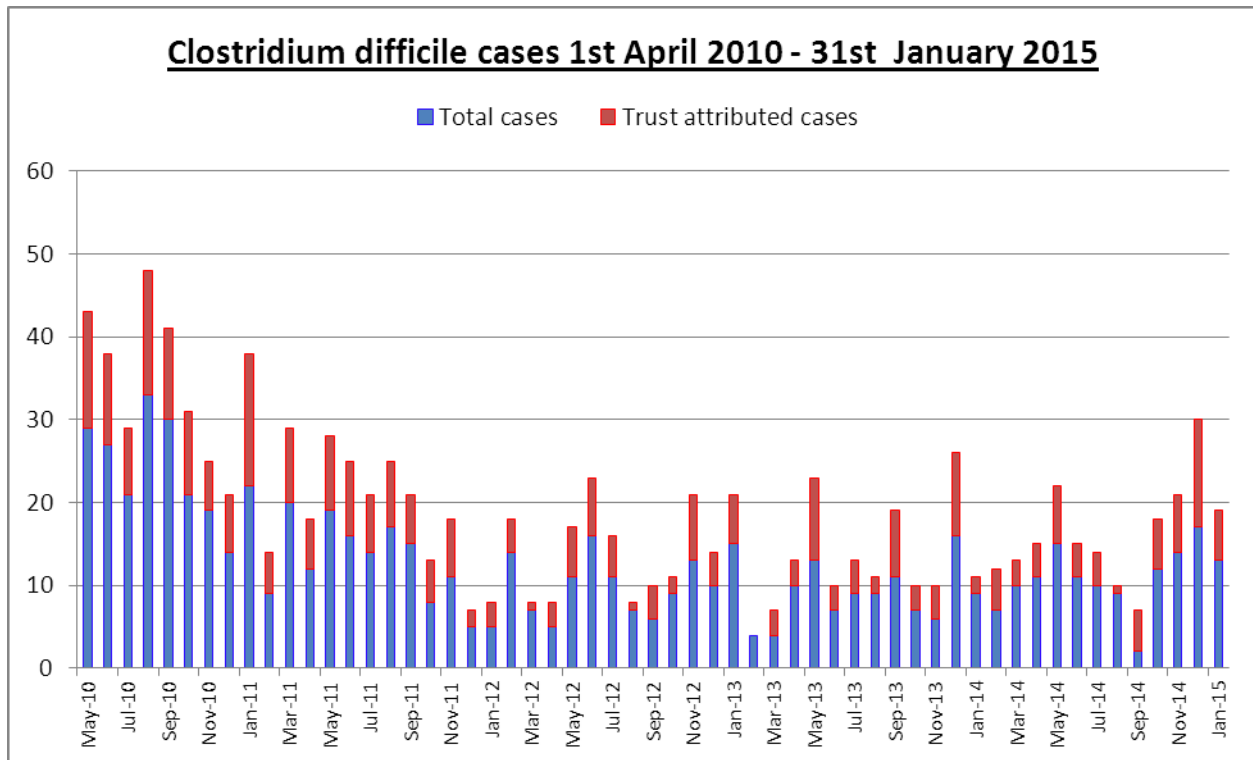
The graph below provides the most up-to-date data from Public Health England comparing the incidence of trust-apportioned *C difficile* cases with the regional and national average incidence to the end of December 2014.

**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 1<sup>st</sup> April 2010 to 31<sup>st</sup> January 2015.**



The current position in respect of CDI is the cause of considerable concern causing patient safety and reputational risk.

The organisation was very busy in January 2015 with high levels of non-elective activity, resulting in higher than ideal levels of bed occupancy. We know that high bed occupancy is a risk factor in respect of HCAI. The risk increases above 85% bed occupancy.

It is imperative that our HCAI prevention and control measures are particularly robust and we remain focussed on this agenda. The Quality Assurance committee received a presentation on actions being taken to prevent CDI from the deputy DIPC and Hotel Services Manager. A report will be given on a monthly basis going forward.

In recognition of the need for additional senior support to the IPC agenda, Julie Halliday, an experienced director of nursing and DIPC, will join the Trust on the 17<sup>th</sup> of February and work with the organisation for 3 days per week for 3 months. Julie will work to the DIPC and focus on the reduction of CDI.

### **C.difficile action plan (see appendix 1)**

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

#### Cleaning

- A second board to board meeting was held with Carillion and Endeavour on the 10<sup>th</sup> February. The meeting included performance data, agreed timescales for future audit and process for escalation of non-compliance. The Director of Operations for Carillion will attend the STHFT Board meeting on the 24<sup>th</sup> February to provide further assurance to the Board.
- Implementation of additional 3 hours of domestic cleaning on each of wards 1-12 thus removing the gap in “day time” cleaning.
- Areas with an increased incidence of CDI have historically been cleaned with a chlorine releasing agent. This has been extended to all in-patient areas.
- Introduction of clean indicators tape on all toilets following routine discharge and terminal discharge cleans to confirm cleaning has taken place and offer assurance to patients and staff.

#### Communication

- *C.difficile* presentations to key staff groups including managing directors, heads of nursing and clinical matrons, directorate managers reiterating and clarifying expectations.
- Completed an engagement event for ward clerks to increase their awareness of HCAI responsibilities.
- Commenced a survey of patients and the public regarding awareness and understanding of the HCAI media campaign. Early data suggests patients and the public have noticed the posters/banners and have read them. The survey will continue to gather information relating to their perception of IPC within the Trust.

#### Hand hygiene

- 100% return rate for the monthly hand hygiene audit was achieved in January 2015.
- Continued focus on all clinical staff completing a hand hygiene competency by 31<sup>st</sup> March 2015.
- Implementation of new hand hygiene posters in all clinical areas.
- Hand hygiene audit and competency compliance has been included in the new centre HCAI dashboards. This data is updated on weekly basis.

#### Antimicrobial prescribing

- The following table provides centre averages from the antibiotic prescribing ‘A RED’ audit results for January 2015.
- Overall Trust average for the use of appropriate antibiotic was 99.9%. 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 92% and ‘end date’ was 62%. Daily review compliance was 69%.

Pharmacy "A RED" Antibiotic Audit and JCUH Antibiotic Ward Round Audit Results by Centre (January 2015)																		
Centre	No. Pts in Centre	% Audited	% of Audited Pts on Antibiotics	No. Antibiotics	% Oral	% Enteral	% Parenteral / Nebulised	A		R			E			D		
								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	No. Antibiotic Courses Reported to JCUH Antibiotic Ward Round	% Antibiotic Courses Deemed Acceptable by JCUH Antibiotic Ward Round Audit
Integrated Medical Care	436	94.3	35	178	57.3	0	42.7	24	91.7	70.8	84.6	94.4	57.3	45.7	74.2	68.4	218	99.5
Speciality Medicines	87	92	31.3	28	42.9	0	57.1	3	100	60.7	92.9	96.4	39.3	25	46.4	92	65	100
Surgical Services	91	93.4	41.2	46	52.2	0	47.8	4	100	58.7	86.4	91.3	50	37	56.5	68.8	64	100
Tertiary Services	165	95.2	26.8	48	54.2	0	45.8	8	100	75	72.9	89.6	62.5	41.7	70.8	74.4	83	100
Trauma, Orthopaedics, Theatres & Anaesthetics	115	74.8	41.9	47	40.4	0	59.6	7	100	48.9	72.5	81.4	61.7	37.5	72.1	60.7	28	100
Women & Children	13	100	30.7	6	66.7	0	33.3	1	100	16.7	100	100	16.7	33.3	50	50	9	100
<b>RAG Rating Key</b>																		
Red is up to 59.9%; Amber is 60-89.9%; and Green is 90% or over																		

### Performance monitoring

- A Chair led *C.difficile* executive overview group has continued to monitor action to reduce CDI.
- Weekly performance meetings, chaired by the DIPC, with members of the centre triumvirate commenced.
- The *C.difficile* assurance framework has been updated (see appendix 2).
- We are working with South Tees / Hambleton, Richmondshire and Whitby CCGs to confirm an appeals process.
- 100% return of the weekly clinical matron HCAI monitoring checklist. Actions identified within the audits are actioned by clinical matrons.
- Revision of the clinical incident panel format / leadership to increase clinical ownership.
- Deputy DIPC has met all managing directors to review the centres HCAI annual action plans.
- Agreement of the management of non-compliance with IPC practices.
- Completion of audit by the Trust's auditors on cleaning.

### Shared learning

- CCG and Area Team representatives are members of the Trusts HCAI Collaborative.
- Deputy DIPC has continued to liaise / meet with other Trusts to share and learn lessons. In January 15 one meeting was held with the lead IPC nurse from County Durham and Darlington NHS FT. This identified key shared lessons including focus on weekly meetings with key multidisciplinary managers during period of increased cases; use of a different decontamination solution and consultant based antibiotic prescribing compliance audits.
- DIPC meeting with DIPC from County Durham and Darlington NHS FT. This will be followed by a visit from the CDDFT team to share the practice in their trust.

### **The following actions are planned for February/early March 2015**

#### Cleaning

- Review process for cleaning patient equipment within isolation rooms.
- 3 day audit commissioned by STHFT, Endeavour and Carillion to commence on the 23<sup>rd</sup> February 2015. Audit to be undertaken by Mr T Hubbard, Credits for Cleaning.

## Communication

- Development of an HCAI responsibility matrix for key Trust staff.
- Repeat further HCAI awareness/engagement events for ward clerks.

## Hand hygiene

- Sustain 100% monthly hand hygiene audit submission.
- Focus on the completion of hand hygiene competencies for all staff by 31<sup>st</sup> March 2015 - additional light boxes purchased to support this

## Antibiotic prescribing

- Work to be undertaken to increase the completion of antibiotic prescribing audits by junior medical staff.

## Performance monitoring

- Third external assurance review by Professor Mark Wilcox which is planned for the 17th February 15. The review will include meeting with senior staff in clinical centres, and will have sessions dedicated to cleaning and prescribing. Members of the Board will receive feedback from Professor Wilcox on the 17<sup>th</sup> February. A written report will be provided following the review and actions will be addressed.
- Development of a system to recognise exemplary IPC compliance / number of days without any attributed *C.difficile* cases.
- Review of the Trust's meeting structure.

## **2. SURVEILLANCE DATA**

### **2.1 MRSA bacteraemia**

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

There have been 2 cases of MRSA bacteraemia in January 2015. One case has been provisionally classed as not Trust-assigned and one case has provisionally been assigned as Trust-assigned. The bacteraemias were respectively caused by community-acquired pneumonia and septic arthritis. For the Trust-assigned case an MRSA screen was omitted on a previous admission to orthopaedics in November 2014. If this had been done the bacteraemia possibly may have been avoided. For the non-Trust-assigned case there were no factors identified which could have avoided the bacteraemia.

## 2.2 MSSA bacteraemia

MSSA	Annual total 13/14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Total 2014/15 to date	Target for 2014/15
Total cases	92	16	8	6	16	11	8	9	14	8	8	9	5	94	NA
Not trust apportioned	64	13	5	5	12	8	7	8	10	7	5	5	4	71	NA
Trust apportioned	28	3	3	1	4	3	1	1	4	1	3	4	1	23	NA

There have been 5 cases of MSSA bacteraemia in January 2015; 1 of which was classed as Trust-apportioned. Root cause analyses have been requested from the clinical teams concerned and any lessons learnt to be discussed at directorate and centre meetings.

## 2.3 Surveillance for other healthcare-associated infections

	Total for 13/14	January 2015	Total 14/15
Bacteraemia due to glycopeptide-resistant enterococci	6	0	2
Bacteraemia due to <i>E. coli</i>	334	25	335
ESBL producing coliform infections	960	95	877
• sample taken in community	591	68	582
• sample taken in our trust	369	27	295
• bacteraemias	17	0	19
Other alert organisms	1	0	0

## 3. OUTBREAKS

Diarrhoea & vomiting outbreaks	Annual total 13/14	Jan 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	Total 14/15 to date
Total number	2	1	0	0	0	0	0	0	1	1	0	0	0	0	2
Total number of patients affected	43	14	0	0	0	0	0	0	8	5	0	0	0	0	13
Total number of staff affected	8	3	5	0	0	0	0	0	4	3	0	0	0	0	7

## 4. HAND HYGEINE

The following table provides the first 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. **The overall return rate was 100%.**

Centre	Overall return %			Average % compliance		
	Nov 14	Dec 14	Jan 15	Nov 14	Dec 14	Jan 15
Women & Children	57%↑	53%↓	100%	77%↑	71%↓	80%↑
Surgery	57%=	43%↓	100%	79%↑	87%↑	86%↓
Clinical & Diagnostics	20%↑	50%↑	100%	75%↓	97%↑	98%↑
Trauma & Anaesthetics	60%↑	47%↓	100%	81%↓	88%↑	81%↓
Specialty Medicine	50%↑	47%↓	100%	84%=	73%↓	76%↑
Tertiary Services	60%↑	60%=	100%	80%↑	85%↑	79%↓
Integrated Medicine	65%↓	54%↓	100%	86%↓	92%↑	84%↓
<b>Trust wide data</b>	<b>53%↑</b>	<b>51%↓</b>	<b>100%</b>	<b>81%↑</b>	<b>85%↑</b>	<b>84%↓</b>

Hand hygiene competency assessments were introduced in 2013. The following table provides the latest Centre compliance data up to 31<sup>st</sup> January 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 per month to complete these assessments.

Centre	Number of clinical staff	Number of clinical staff completed hand hygiene competency Up to 31 <sup>st</sup> January 15	% of clinical staff completed hand hygiene competency		
			Nov 14	Dec 14	Jan 15
Clinical & Diagnostic	606	339	14%↑	42%↑	56%
Integrated Medical Care	1015	553	26%↑	40%↑	54%
Specialty Medicines	399	80	10%↑	15%↑	20%
Surgery	364	191	18%↑	41%↑	52%
Tertiary Services	504	204	35%↑	35%=	40%
Trauma & Anaesthetics	611	288	18%↑	22%↑	47%
Women And Children	706	178	9%↑	17%↑	25%
<b>Overall Trust total</b>	<b>4,205</b>	<b>1,833</b>	<b>19%↑</b>	<b>31%↑</b>	<b>44%</b>

There has been an increase in the overall trust total by 13% since December 2014 and 30% since October 2014. Continuation on the focus to complete the hand hygiene compliance by clinical staff is required by the centres to achieve the aim of 100% compliance by 31<sup>st</sup> March 2015.

## 5. EBOLA/ VIRAL HAEMORRHAGIC FEVER PREPAREDNESS

The Ebola steering group met three times in January 2015:

- A total of 239 staff have completed observation or donning of personal protective equipment training up to 31<sup>st</sup> January 2015.
- An Ebola response plan has been completed. This remains in draft in recognition of the evolving national advice.
- High specification personal protective equipment was received into the organisation for use in the care of patients with Ebola or suspected Ebola.

It is important to recognise the amount of staff time and cost associated with the Ebola preparation.

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

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 weekly 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.

## 7. RECOMMENDATIONS

The incidence of HCAI within the Trust is of significant concern.

The Trust 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 March 2015



**RUTH HOLT  
DIRECTOR OF NURSING & QUALITY ASSURANCE (DIPC)**

**February 2015**

**Appendix 1 – *C.difficile* action plan attached**

**Appendix 2 – *C.difficile* assurance framework attached**