

The Robert Jones and Agnes Hunt

Orthopaedic Hospital

NHS Foundation Trust

BOARD OF DIRECTORS 31ST JULY 2014

Subject/Title	Infection Prevention and Control Annual Report 2013/14	
Executive Responsible	Jayne Downey, Director of Infection Prevention and Control	
Paper prepared by (if different from above)	Sue Sayles, Infection Control Nurse Phil Davies, Facilities Manager	
	For Information	
Nature of Report	For Discussion	
	For Approval	✓
Category of Item	Strategic Direction and Development	
	Performance and Governance	✓
Context	Previous Board discussion	✓
	Link to National Policy	✓
	Link to Trust's Strategic Objectives	✓
	Risk if no action taken	
Executive Summary	This report outlines the activities of the Trust relating to infection control for the year April 2013 to March 2014. The aim of the report is to present infection prevention and control activity within Trust and review accountability arrangements, policies and procedures relating to infection control, audit, surveillance and education.	
Received/ Approved By		
Legal Implications		
Recommendations	The Board of Directors are asked to note the Infection Prevention and Control Annual Report 2013-14.	
Acronyms/ Abbreviations		

Executive Overview

It is with great pleasure that we present our Infection Prevention and Control Annual Report for 2013/14.

Once again, the Trust has so much to be proud of – this report demonstrating the continued high standards sustained in infection control.

During 2013/14, the Trust has maintained excellent healthcare associated infection (HCAI) rates. There were no cases of MRSA bacteraemia, only one case of Clostridium Difficile Infection, and surgical site surveillance shows rate of infection lower than the national average.

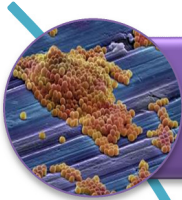
In recognition of the role all staff play in infection prevention and control, education has been delivered at all levels across the organisation. This report demonstrates that a standard programme of infection prevention, including hand hygiene, cleaning standards and personal protective equipment, is complimented by specialist training when needed – for example in response to the increased prevalence of Carbapenamase Producing Enterobacteriaceae (CPE).

Recognising the importance of infection prevention and control, the Trust continues to undertake surveillance of all infections, which is supported the availability of a regular wound clinic for all patients as required in order to support and review post-operative wound management.

As part of the Trusts vision to be a leading centre high quality, sustainable orthopaedic and related care, The STAR (**S**ustaining Quality **I**through **A**ssessment & **R**evue) performance assessment framework has been introduced as a measure of quality, providing evidence against national standards.

The STAR initiative incorporates robust infection prevention and control standards, including evidence of Link meetings and audit results, which are displayed on STAR quality boards in each ward area, providing assurance to patients and visitors of the robust Infection Prevention and Control measures across the Trust.

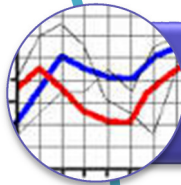
The trust board fully recognised the importance and positive impact that good infection prevention performance has on patient experience and their safety. The Trust has made patient safety its number one priority having infection prevention as its founding principle. The challenge of 2014/15 remains to maintain low rates of HCAI and to continue to improve practice to ensure the best care for all patients.



For the 7th consecutive year, the Trust has had no MRSA Bacteraemia



The Trust achieved MRSA elective and emergency screening compliance of 99.88% for the year, above the threshold set by Shropshire CCG



The Trust has achieved all mandatory targets for C difficile and MRSA



An Antimicrobial Stewardship Committee was developed to implement the Trusts Antimicrobial Stewardship Programme for all patients, to ensure evidence based local antimicrobial guidelines are in place and reviewed regularly



The IPC Team have worked with the Facilities Manager and the domestic services to ensure continued high standards of cleanliness, Domestic service staff continue to achieve 100% attendance at Infection Control Training



IPC Team has continued to promote Infection Prevention across the Trust, including sourcing 'pop-ups' advocating IPC principles at the main entrance, and hand wash sinks at the entrance to MCSI



A full year of surgical site surveillance has been undertaken, and the Trust has consistently achieved infection rates below the national average in hip & knee replacements

The Team

Jayne Downey

Director of Infection Prevention and Control

Dr Graham Harvey

Consultant Microbiologist, 1 programmed activity (4 hours/week) is agreed with Shrewsbury and Telford Hospital Trust for provision of this service.
24h infection control advice is available from the on-call consultant microbiologist (3 programmed activity sessions cover in hours and on call)

Sue Sayles

Infection Prevention and Control Sister (1 WTE) Band 7

Mary Offland

Surgical Site Surveillance Nurse (0.8 WTE) Band 5

Sian Evans

Infection Control Administrator (0.43 WTE) Band 2

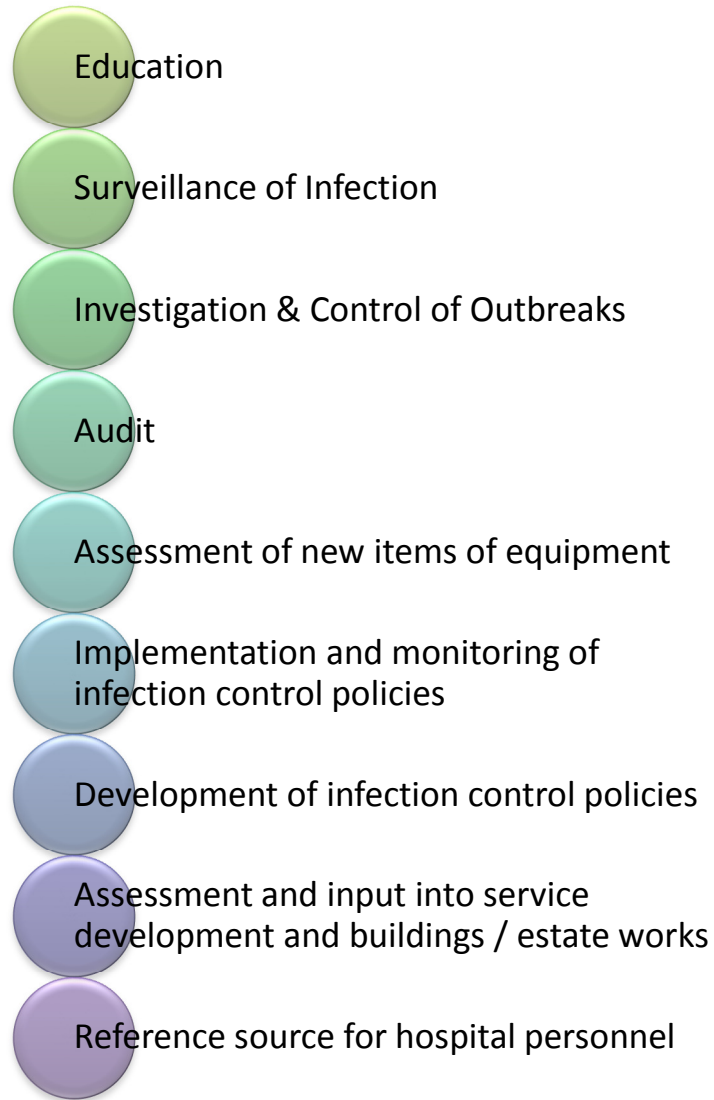
The Infection Prevention and Control Team (IPCT) are represented at the following Trust meetings:

Infection Control Committee	Quarterly
Infection Control & Tissue Viability Link	Monthly
Clinical Effectiveness Committee	Monthly
Medicines Management Committee	Quarterly
SNAHP Forum	Monthly
Band 6 Forum	Quarterly
Water Group	Quarterly
PLACE Team	Monthly
Medicine Divisional Meeting	Monthly
Health and Safety Committee	Quarterly
Root Cause Analysis	Ad-Hoc

The IPCT is also represented at the following external meetings:

DIPC Lit (Local Implementation Team)	Monthly
Clinical Quality Review (CQR)	Monthly
Infection Prevention and Control Nurses Forum	Every 3 months

Infection Prevention and Control has many roles throughout the organisation



Infection control advice is available during office hours (09.00 – 17.00) from the Infection Prevention & Control Team and 'on-call' via the duty Microbiologist at SaTH.

Committee

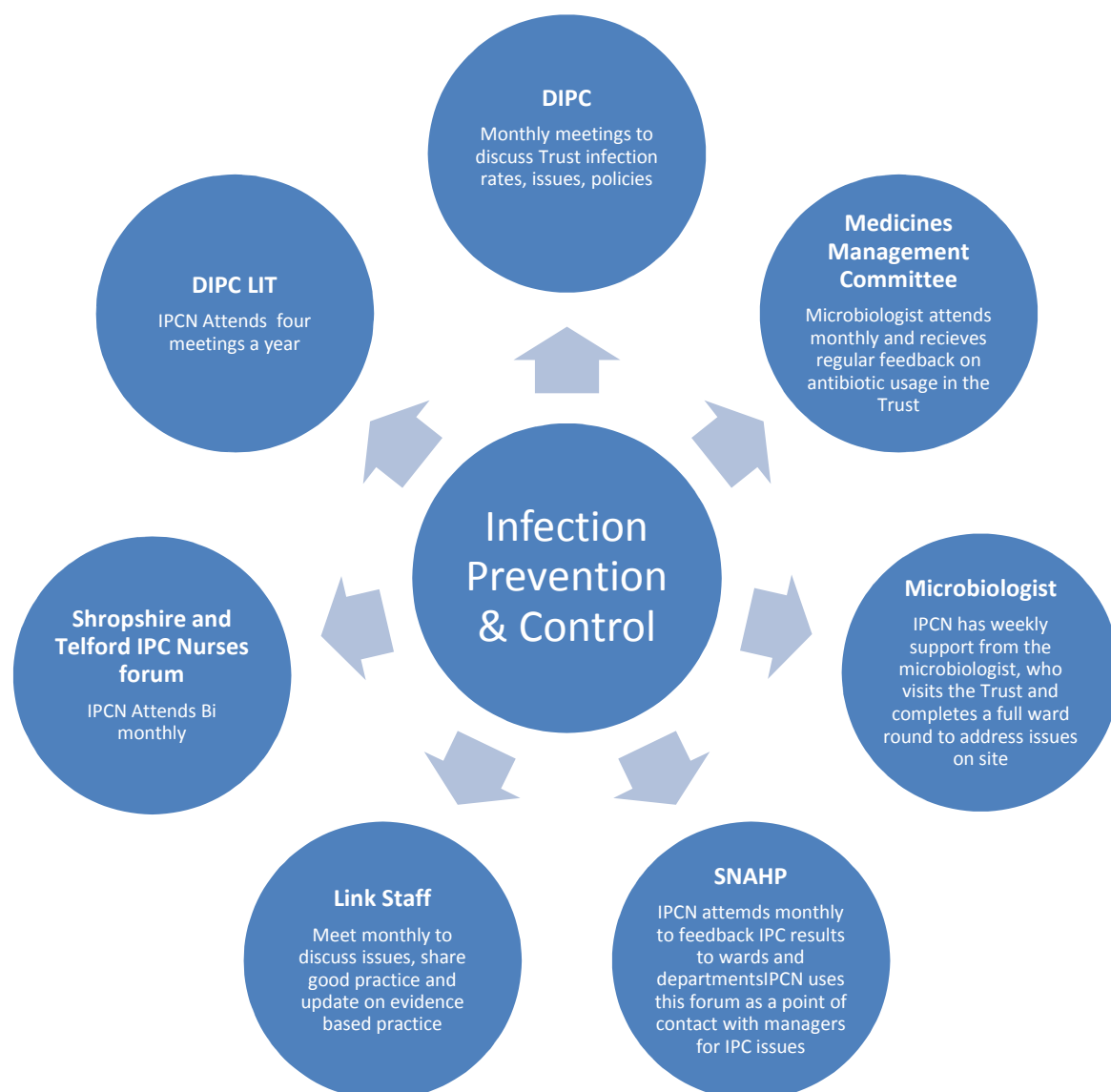
The Infection Control Committee (ICC) meets quarterly and is chaired by the DIPC. A much wider group of key stakeholders including theatre representation attend this meeting to discuss future issues and solutions around infection prevention and control, cleanliness and wider environmental improvements and policies.

Table 1 shows the attendance at the ICC 2013 – 14

	30/04/2013	06/08/2013	29/10/2013	28/01/2014
Director of Infection Prevention & Control (Director of Nursing)(Chair)	✓	✓	✓	✓
Deputy Director of Nursing	✓	✓	✓	
Consultant Microbiologist (Infection Prevention & Control Dr)		✓	✓	✓
Infection Prevention and Control Sister	✓	✓	✓	✓
Surgical Site Surveillance Nurse		✓		
Quality & Safety Matron	✓	✓	✓	✓
Consultant Physician			✓	
Consultant in Communicable Disease Control & Public Health England				
Antimicrobial Pharmacist	✓			✓
Facilities Manager (Representing Estates & Facilities)	✓	✓	✓	✓
Matron, Surgery & Surgical Services	✓	✓	✓	
Matron, Medicine & Rehabilitation and Diagnostics	✓	✓	✓	✓
Consultant Surgeon				
Theatres Manager	✓	✓		
Health, Safety and Risk officer	✓		✓	✓
Head of Infection Prevention and Control, Shropshire County Commissioning Group and Telford & Wrekin County Commissioning Group (IPC – SCCG & TWCCG)			✓	

Links

Strong links, both internally and externally, allow the IPC team to adapt a local health economy approach, and encourage standardisation of practice



Microbiology

Working arrangements in the Microbiology laboratory have been established to facilitate seven-day testing and reporting for *Clostridium difficile* toxin, Methicillin resistant *Staphylococcus aureus* (MRSA), and *Norovirus*.

There are good communications systems between the laboratory the IPC team, ward staff, from the Microbiology laboratory attending outbreak meetings to provide current detection information & the regular IPCT meetings. The information on ward issues is then communicated to staff in the laboratory to enable better prioritisation. The use of real-time information about alert organisms allows the epidemiological and surveillance data to be effectively managed.

During the year the DIPC has produced quarterly reports which update the Infection Control Committee as well as the Trust Board in Infection Control and Cleanliness matters. The DIPC reports directly to the Chief executive.

Whilst the Trust has no separate budget allocation for infection control, it has utilised appropriate budgets and funding to support ongoing improvements. Funding for specialist training and attendance at required external meetings is provided for specialist practitioners/clinicians as well as ward staffing.

The infection prevention and control programme of work identifies the key objectives for the team in the year 2013 – 2015.

The IPC team is currently on track to achieve the objectives as set out in the programme of work, next on the agenda is the review of staff information leaflets, which will be updated in line with the policies as they are revised



Mandatory training in infection prevention and control is a requirement for all Trust staff including clinical, non-clinical staff and contractors.

The Trust uses an e-learning system to deliver consistent annual training to staff, and the IPCN provides induction training to all new-starters. Medical staff also have quarterly updates from the Infection Control Nurse.



The Training figures for 2013 – 2014 are shown in table 2.

Completion of Infection Control from 1st March 2013 to 31st March 2014															
Courses require completion annually	Total number of staff overall to complete based on organisational TNA	Number of staff completing module each month												Total no's completed training	Total as a %
Module Name		Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14		
Infection Control	1023	65	95	46	73	31	46	57	136	90	90	90	131	950	93%

It is the responsibility of the ward/departmental managers to ensure that annual updates via e-learning are completed by all staff, this is in line with the Trusts training needs analysis document.

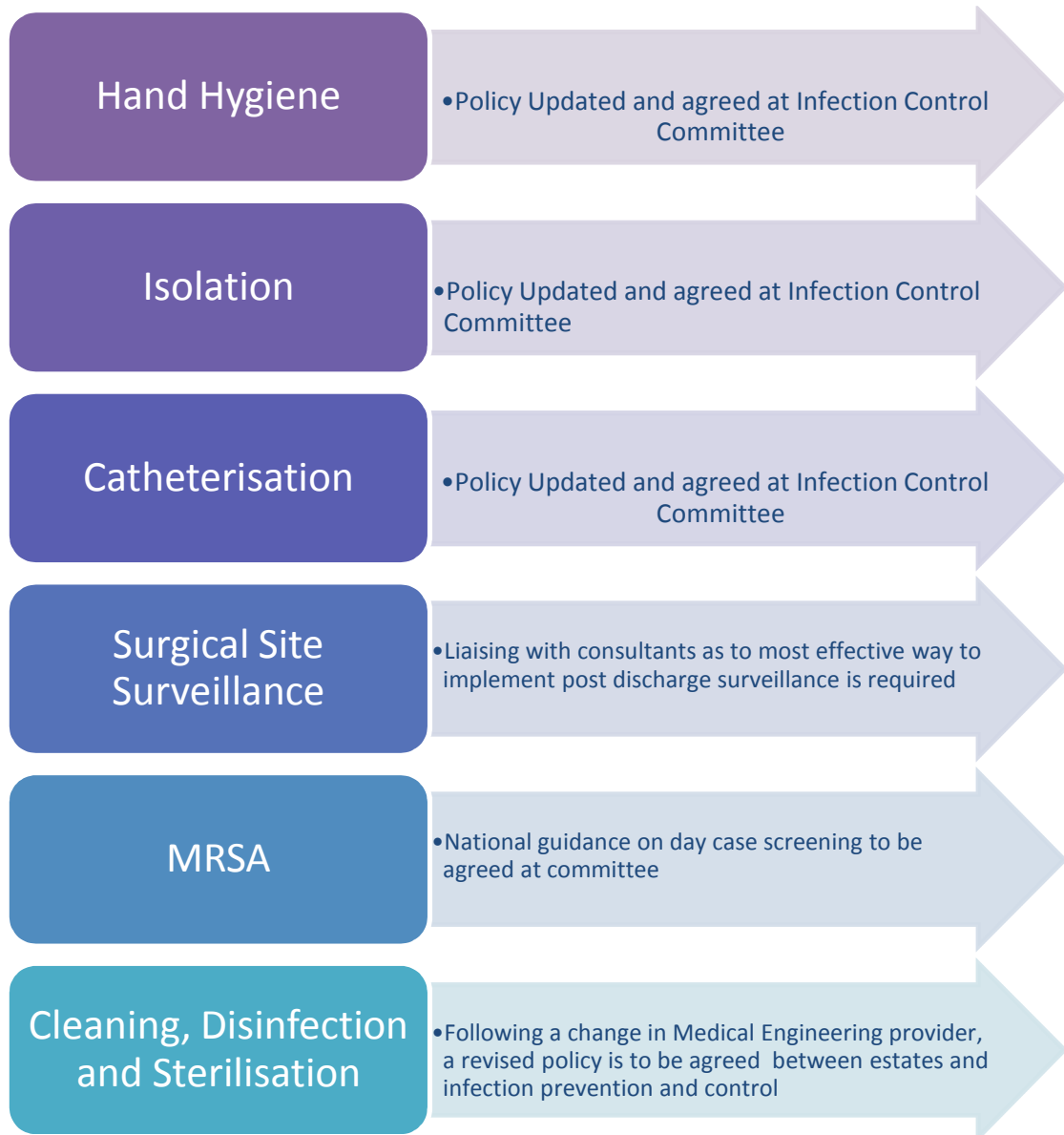
The Infection Control Team is currently updating the content and delivery of the e learning module, in line with the learning and development policy; this ensures that the most up to date evidence based practice is being advocated across the Trust.

5th Annual Infection Prevention and Control Regional Conference

Thirteen Infection Prevention and Control Link Nurses attended the conference on 'Driving towards zero Healthcare Infections' at RSH in September. The day focussed on working together in partnership to improve the patient experience and encouraging commitment from all staff to promote excellent standards of practice in preventing catheter associated urinary tract infections. The event was successful and included a range of topics delivered by both internal and external speakers. The feedback was very positive with all of RJAH attendees agreeing that the day met their needs and fulfilled their expectations. RJAH's commitment and support was noted by RSH thus bolstering communications within the Infection Prevention Local Health Economy.



In 2013, a programme of updating IPC policies was introduced. The programme will continue through 2014/15.



Reportable HCAs

Public Health England requires mandatory surveillance of the following types of infection:

- *Clostridium difficile*
- *MRSA bacteraemia*
- *MSSA bacteraemia*
- *E-coli bacteraemia*
- *Glycopeptide Resistant Enterococcal (GRE) bacteraemia*
- *Norovirus*
- *Carbapenemase-producing Enterobacteriaceae (CPE) Surgical Site Infections (Orthopaedics)*
- *MRSA Outbreak*

Clostridium Difficile

Clostridium difficile is the main cause of antibiotic associated diarrhoea that is seen at RJAH. As a HCAI, these cases are monitored by Public Health England, through mandatory surveillance data supplied by on a monthly basis by all Trusts.

A lot of work is ongoing to reduce the incidence of *Clostridium difficile* Infection (CDI) across the local health economy and a task and finish group for Shropshire and Telford has been formed and an action plan produced. This includes– education of medical staff around antibiotic prescribing, the instigation of antibiotic ward rounds, increased cleaning frequencies when there is a case of *C. difficile*, rapid isolation of these patients and the emphasis on the use of the *C. difficile* care plan in the hospital. There is a robust reporting mechanism and RCA process around *C. difficile*. All cases of patient's with *C. difficile* are visited by the IPCN on a daily basis to ensure the correct infection control measures are in place in hospital. The Microbiologist also reviews the patient to ensure they are on the correct treatment regime and all the necessary precautions are in-place.

The RCA is then instigated to ensure all staff involved are aware of actions to be taken in order to complete the RCA; information from these staff is collated in order to try and identify key themes. The clinical team, the Infection Control Nurse and the Pharmacist will then meet up with the Director of Nursing to review the case. All the key themes are shared with the ward managers and recommendations taken to the ICC.

There was one case of C. difficile on Gladstone Ward during March 2014 which was identified when multiple samples were obtained in a potential outbreak of diarrhoea. The patient had two episodes of loose bowels, but was taking daily aperients. The patient was asymptomatic of C. difficile symptoms therefore did not receive any treatment.

MRSA bacteraemia

The Trust participates in the Mandatory Enhanced Surveillance Scheme (MESS) and has accumulated robust information on the local pattern of this HCAI. The data covers MRSA detected in blood cultures only and does not include MRSA carriage rates

MRSA Screening Compliance

The Trust achieved an overall annual compliance of 99.88%.

There is an expectation from the PHE for 100% MRSA screening compliance. However, the Shropshire Clinical Commissioning Group have advised a threshold of 95%.

MSSA Bacteraemia

Since January 2011, Trusts have had to report their Methicillin Sensitive Staphylococcus Bacteraemia (MSSA) cases via the MESS system on a monthly basis. It was anticipated that targets will be set for individual Trusts for MSSA bacteraemia; however, we have been informed by the CCG that for the present time we are to continue to report numbers and no trajectories will be set for the forthcoming year.

There was one case of MSSA bacteraemia during June 2013 which was isolated during admission. The patient underwent a routine total hip replacement and developed a deep wound infection that was infected with MSSA. The patient subsequently developed a MSSA bacteraemia. The RCA reported that the probable cause was the MSSA wound infection. The patient has undergone further surgery and intravenous antibiotics.

E. Coli Bacteraemia

From 1st June 2011, the IPCT have reported all cases of *E. coli* bacteraemia identified within the Trust via the MESS system. No trajectories have been set by the PHE for these cases, monitoring by monthly cases will continue to be recorded.

There were three cases of E. Coli bacteraemia in 2013-14, in all three cases, E Coli urinary tract infections were the probable source of the bacteraemia.

Glycopeptide Resistant Enterococcus (GRE)

There have been no cases of GRE bacteraemia at RJA Orthopaedic Hospital in surveillance period April 2013 – March 2014.

Norovirus

There have been no outbreaks of Norovirus resulting in ward closure in the year 2013 – 14.

CPE

Due to a National and International increase in the cases of hospital acquired Carbapenamase producing enterobacteriaceae (CPE) an acute toolkit issued has been launched by Public Health England. This has been discussed at Trust board, and has been identified as a risk on the Trust's risk register.

The guidance provides a toolkit for the early detection, management and control of CPE, and highlights the requirements of rectal screening patients from abroad and intercity hospitals across the UK.

There have been two cases of CPE on the spinal injuries unit. Both of the patients had a history of/colonised on admission, therefore both required to be barrier nursed in single side rooms. This has led to the Trust reevaluating the side ward availability within the Spinal Injuries Unit. An options appraisal has highlighted that the most viable solution would be to source glass doors for a four bedded bay to allow the patients to be nursed in cohort together in a bay on Gladstone ward with en suite

facilities, this would allow the rehabilitation process to continue with least disruption and also help the psychological needs of the patients.

The Trust has identified a designated area in the gym for colonised/infected patients enabling patients to undergo rehabilitation, whilst minimising the risk of cross infection.

MRSA Outbreak

In the autumn of 2013, it became apparent that there were three new cases of MRSA on Gladstone ward. These three cases were sent for ribotyping to Public Health England to rule in or out possible cross infection between the cases. DNA fingerprinting using pulse field gel electrophoresis showed that these isolates displayed indistinguishable patterns, suggesting person to person transmission may have occurred.

A root cause analysis was undertaken, which identified 6 patients in total that had acquired MRSA whilst being inpatients. Following a full investigation, care and service delivery problems were identified as contributory factors. Recommendations were consolidated into an action plan which has been implemented.

Surgical Site Surveillance

Total Knee Replacements

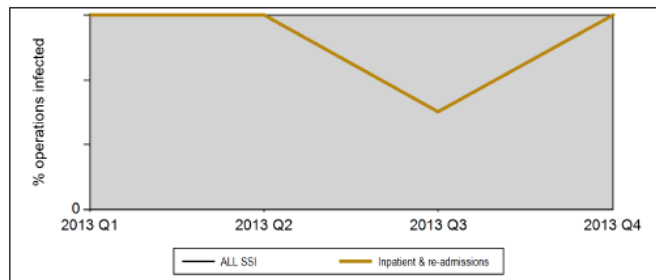


Public Health
England

Surgical Site Infection Surveillance Service

Trend in rate of SSI

Category: Knee replacement
Data between: Jan-2013 and Dec-2013
Hospital: Robert Jones and Agnes Hunt Hospital [138]



Trend for the selected period

Year and Period	No. operations	Patient questionnaire		Inpatient & readmissions		Post discharge confirmed		Patient reported		All SSI *	
		No. Given	% complete	No.	%	No.	%	No.	%	No.	%
2013 Q1	320	1	0.0	2	0.6	0	0.0	0	0.0	2	0.6
2013 Q2	311	0	0.0	2	0.6	0	0.0	0	0.0	2	0.6
2013 Q3	304	0	0.0	1	0.3	0	0.0	0	0.0	1	0.3
2013 Q4	339	0	0.0	2	0.6	0	0.0	0	0.0	2	0.6

*All SSI = Inpatient & readmission, post discharge confirmed and patient reported

For the year 2013 – 14, RJAH performed 1274 clean total knee replacements, with a 0.5% infection rate compared to the national average of 1.1% (of hospitals that do not complete post discharge surveillance)

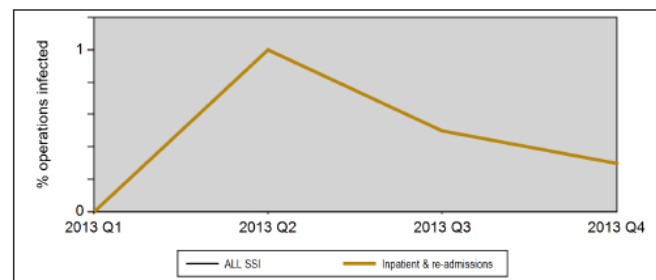


Public Health
England

Surgical Site Infection Surveillance Service

Trend in rate of SSI

Category: Hip replacement
Data between: Jan-2013 and Dec-2013
Hospital: Robert Jones and Agnes Hunt Hospital [138]



Trend for the selected period

Year and Period	No. operations	Patient questionnaire		Inpatient & readmissions		Post discharge confirmed		Patient reported		All SSI *	
		No. Given	% complete	No.	%	No.	%	No.	%	No.	%
2013 Q1	372	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2013 Q2	403	0	0.0	4	1.0	0	0.0	0	0.0	4	1.0
2013 Q3	385	0	0.0	2	0.5	0	0.0	0	0.0	2	0.5
2013 Q4	370	0	0.0	1	0.3	0	0.0	0	0.0	1	0.3

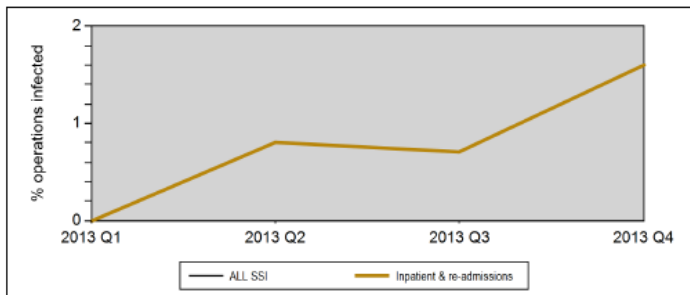
*All SSI = Inpatient & readmission, post discharge confirmed and patient reported

For the year 2013 – 14, RJAH performed 1530 clean total hip replacements, with a 0.5% infection rate compared to the national average of 1.0% (of hospitals that do not complete post discharge surveillance)



Trend in rate of SSI

Category Spinal surgery
 Data between Jan-2013 and Dec-2013
 Hospital Robert Jones and Agnes Hunt Hospital [136]



Trend for the selected period

Year and Period	No. operations	Patient questionnaire		Inpatient & readmissions		Post discharge confirmed		Patient reported		All SSI *	
		No. Given	% complete	No.	%	No.	%	No.	%	No.	%
2013 Q1	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2013 Q2	125	0	0.0	1	0.8	0	0.0	0	0.0	1	0.8
2013 Q3	144	0	0.0	1	0.7	0	0.0	0	0.0	1	0.7
2013 Q4	129	0	0.0	2	1.6	0	0.0	0	0.0	2	1.6

*All SSI = Inpatient & readmission, post discharge confirmed and patient reported

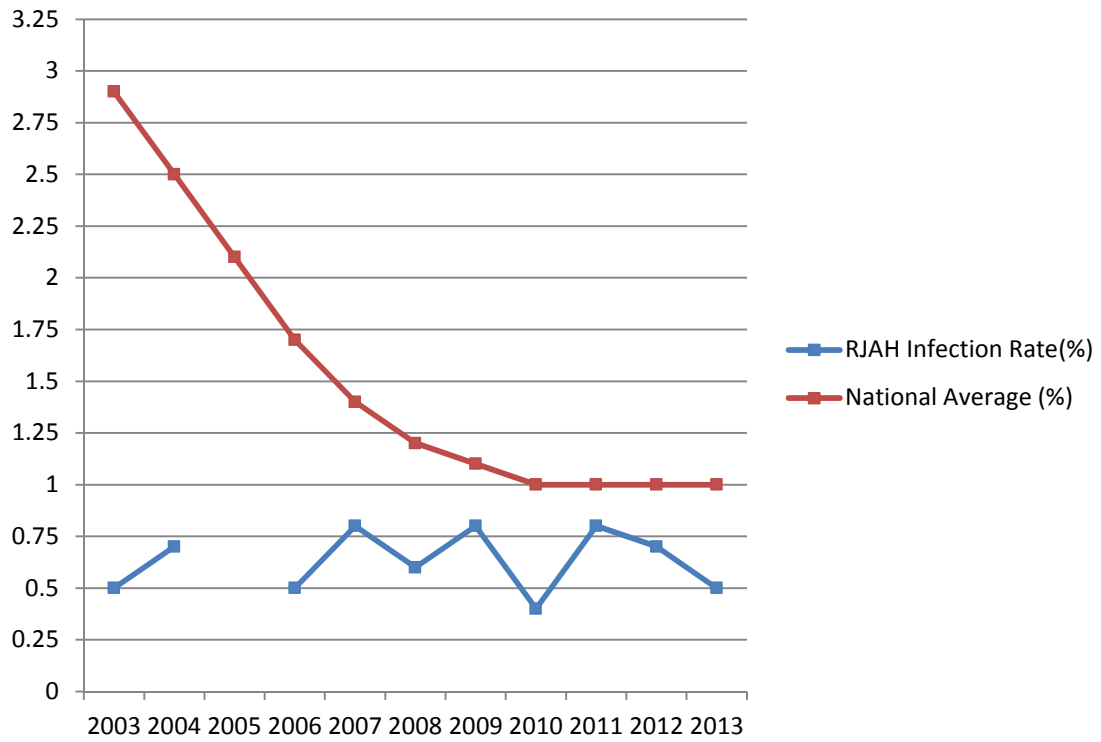
For the year 2013 – 14, RJAH performed 398 clean spinal surgical procedures, with a 1% infection rate compared to the national average of 1.5% (of hospitals that do not complete post discharge surveillance)



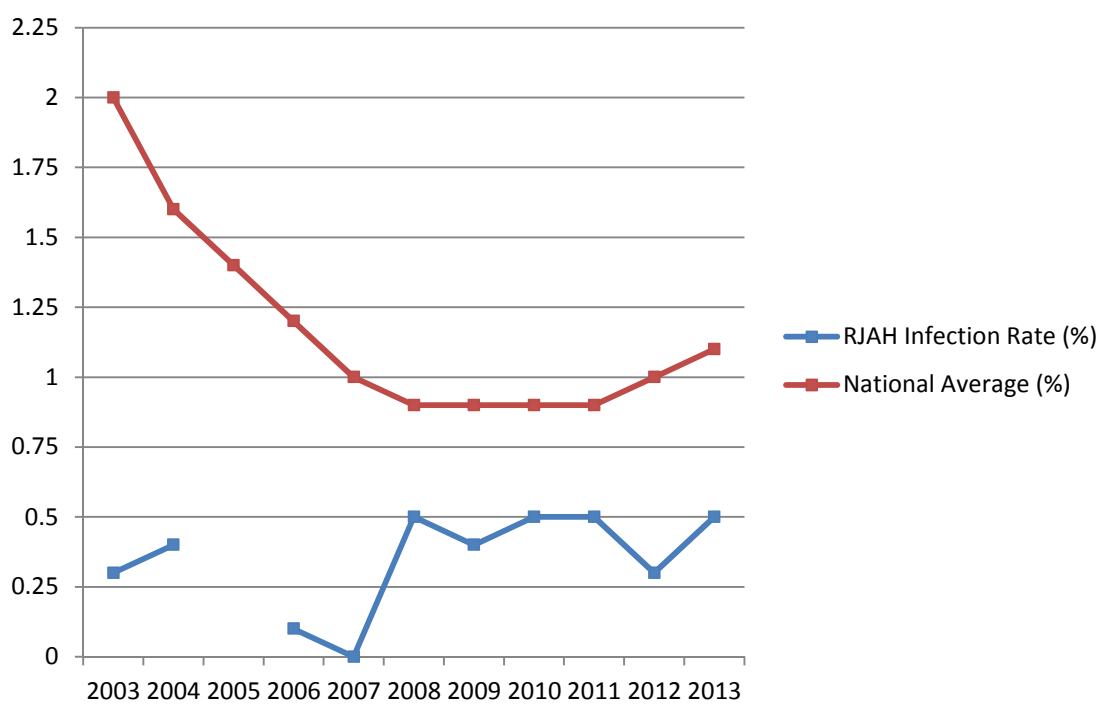
Nationally, the rate of surgical site infection has decreased. The Microbiologist recommended that the Trust analysed a 10 year period of surveillance, to determine whether RJAH surveillance figures had followed the national trend.

Despite the national trend and the fact that RJAH procedures are increasing year on year, the number of infections remains remarkably consistent and is markedly below the national average.

SSISS - Total Hip Replacements

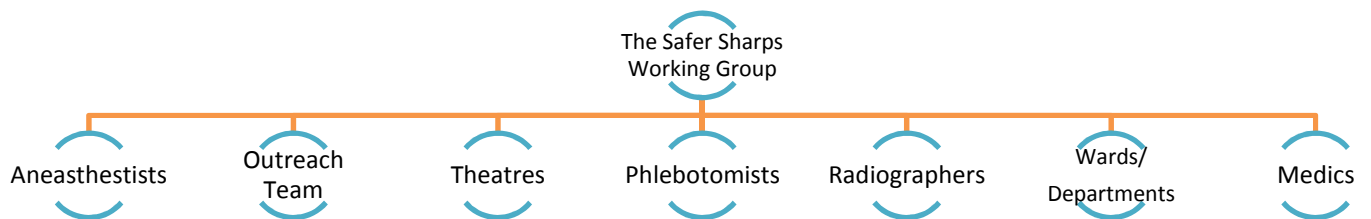


SSISS - Total Knee Replacements

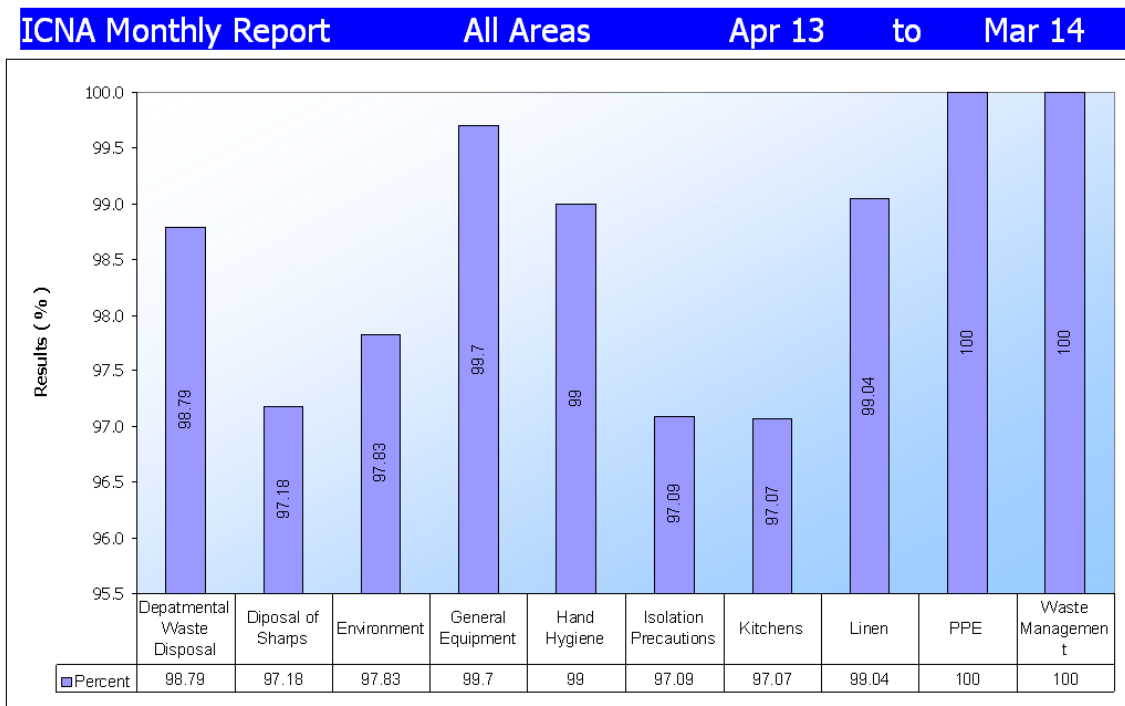


The recent EU directive 2010/32/EU-The Safer Sharps Directive has been introduced to the Trust, with the initiation of a Safer Sharps Working Group. The purpose of this group is to review and evaluate when and where sharps are used across the Trust, and look at where sharps use is not actually required, and seek needle free alternatives.

The working group has been divided into key user groups in order to undertake a review of all sharps used throughout the Trust, and complete individualised risk assessments:



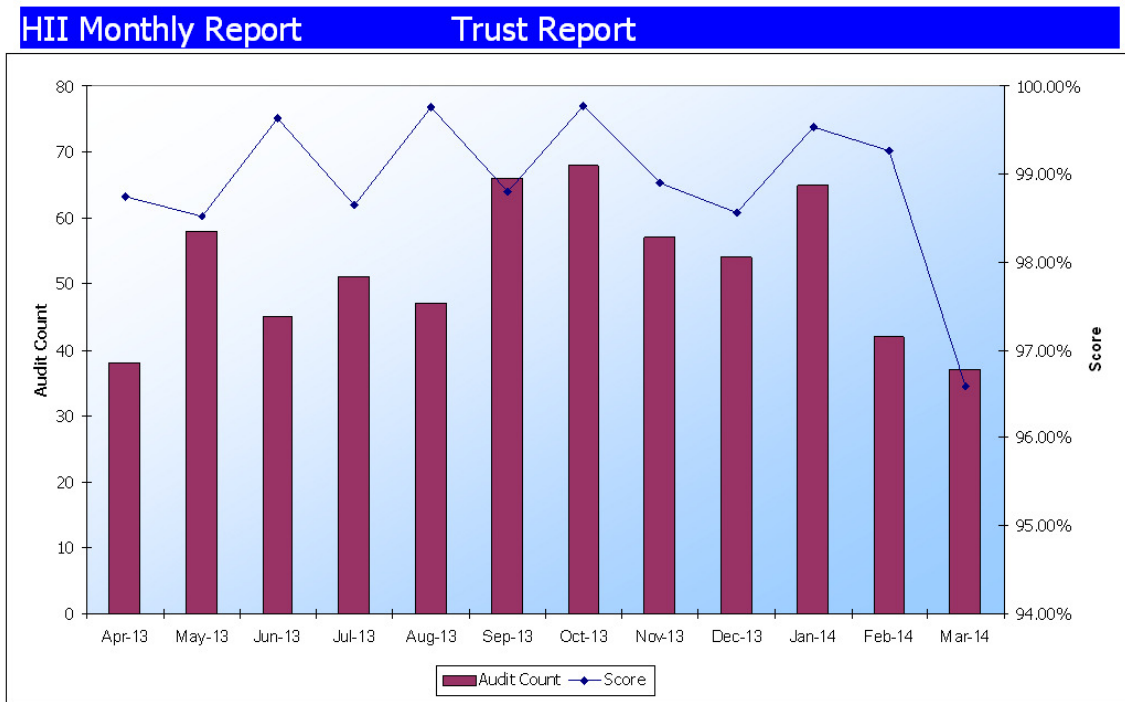
Infection Control Nursing Association (ICNA)



The results of the above categories remain above 97%, which is validated by a peer review programme by the infection control link nurses, which produced an overall compliance score of 98.8%

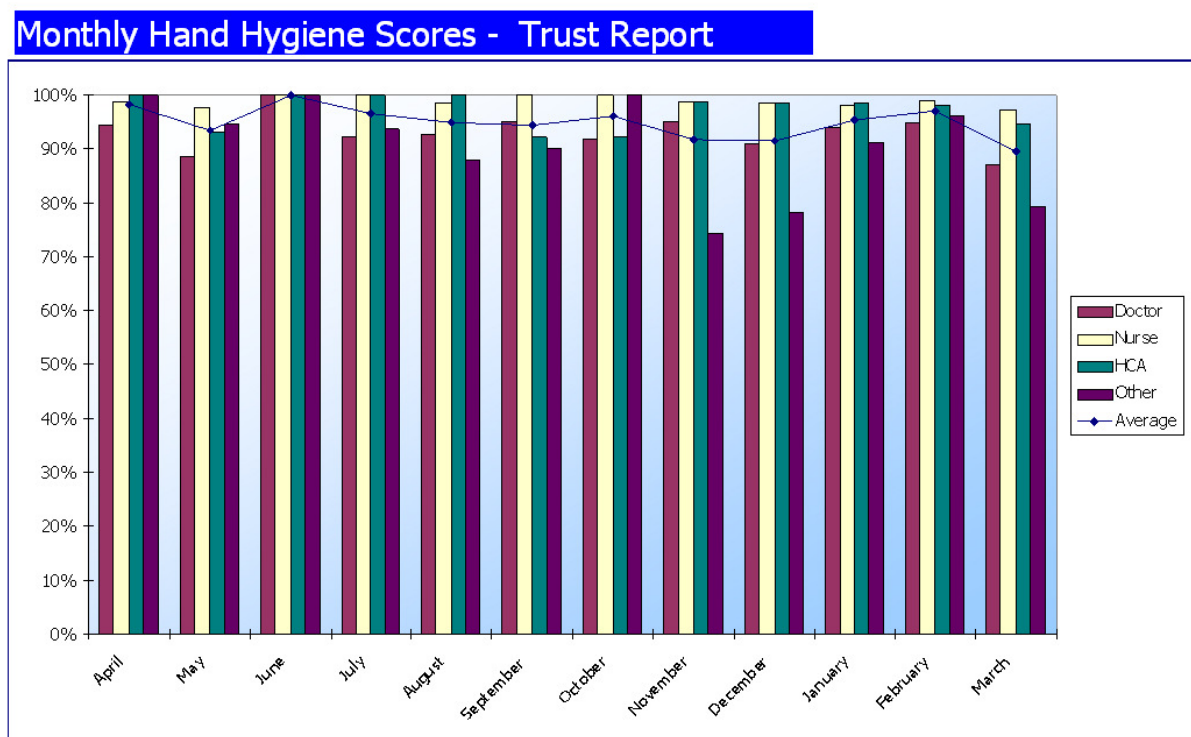


High Impact Interventions



The overall compliance of the High Impact Intervention audits, which include peripheral cannula, central/PICC lines, urinary catheters and cleaning and decontamination, remained above 96.5%. The IPC team has noted that the audit count is not consistent each month. This will be discussed at the senior nurse and allied health professional forum.

Hand Hygiene



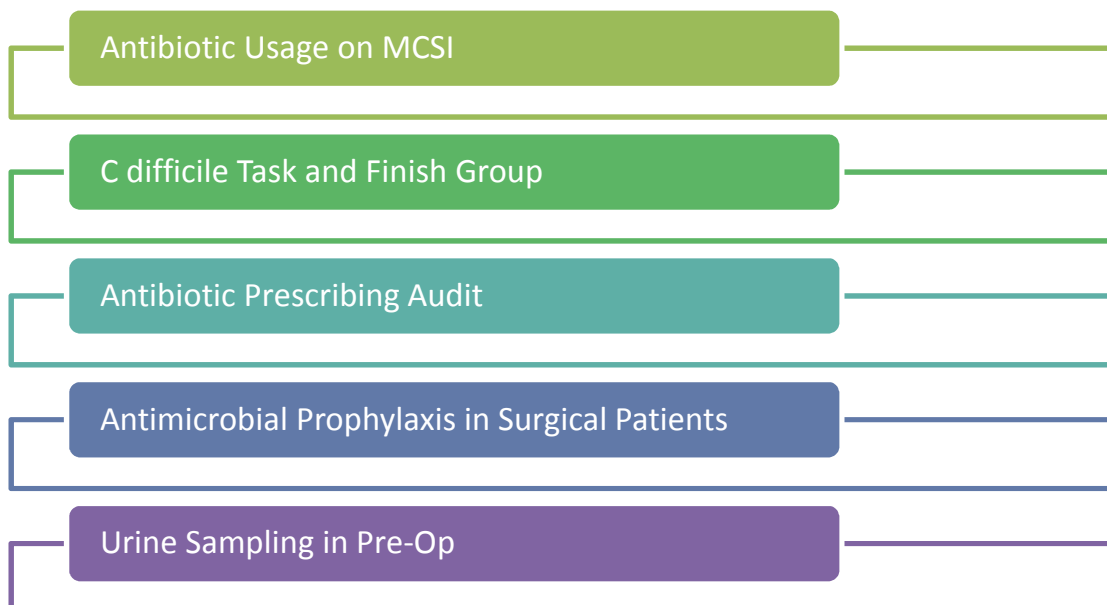
Staff Group	Compliance Score
Nurse	98.73%
Doctor	93.05%
HCA	96.92%
Other	87.19%
Overall trust Compliance	95.25%
Total Number of Hand Hygiene Audit Completed	
3242	

The overall compliance of 95.25%, against a target of 95%, is a 1% decrease in compliance against last year's figures, however the number of audits completed has increased by 534 over the year, which demonstrates that hand hygiene awareness is increasing across the Trust.



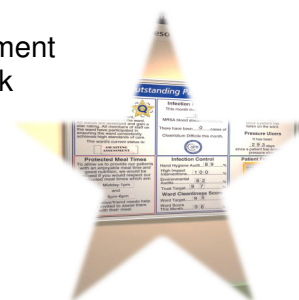
Antimicrobial Stewardship Committee

Topics of discussion in 2013-14



STAR

Infection Prevention and Control is one of the key standards of the Sustaining Quality through Assessment and Review (STAR) assessment programme, introduced in 2013. The implementation of the STAR link files has been successful, and is a useful tool for reference on a day to day basis of any changes to guidance, and dissemination infection control evidence based practice.



Tissue Viability



The Tissue Viability Link Group works very closely with the Infection Control Link Group, increasing knowledge sharing with regards to wound dressings, pressure ulcer prevention, and the SSKIN bundle.

Link Group

Topics of discussion in 2013-14

Root Cause Analysis
Audit Results
Hand Hygiene Training, and Hand Hygiene Competencies
C Diff Strategy
Chloraprep Skin Decontamination
Safer Sharps Initiative
BD And Braun Presentations
MRSA Screening Compliance
Sepsis 6
Molnlycke
Infection Control Quiz: Standard Precautions
Coloplast
Carbapenamase producing enterobacteriaceae

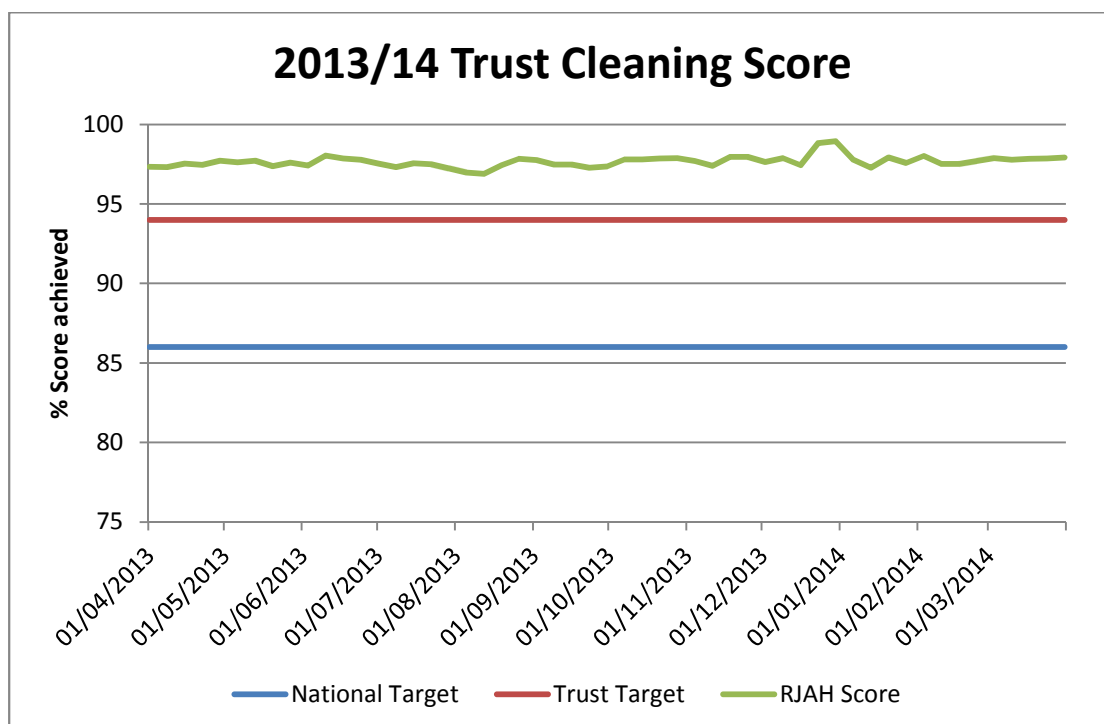
Cleanliness

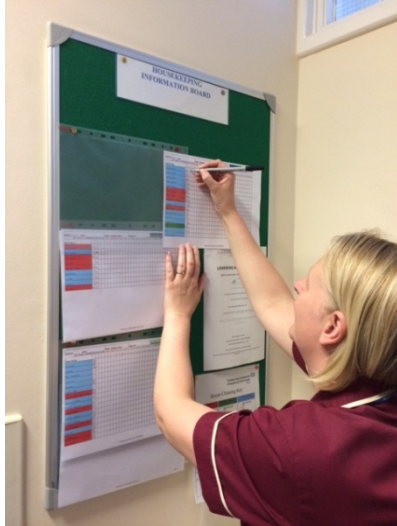
Cleaning - Monitoring & Assurance

All staff recognise the importance of cleaning, none more so than the Trust's 60 dedicated housekeeping staff. Housekeepers are assigned to their own Wards and Departments that they consistently service; they become part of that areas team taking ownership and pride in the cleanliness standard.



Understanding how the monitoring process works, the Housekeepers welcome the auditing team into their area, the team constantly confirm the high standard of cleanliness and catch those areas that need improving early on. The Trust consistently performs above the National Cleanliness target, set by our risk profile, of 86% cleanliness and even exceeds the internal Target of 94%. The chart below shows how the Trust has maintained a year average of **97.6%**





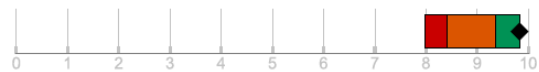
Patients, visitors and staff alike see the hard work being done by the Housekeepers, for assurance the Trust publicly displays, at the entrance of every Ward and Department, a signing off sheet to confirm when a room was last cleaned and how the cleaning was carried out. Also displayed on every Ward's STAR quality board is the cleanliness score the Ward achieved during the last month.

Cleaning – Patient Feedback

Our own audit feedback is backed up by patient feedback. The Trust PALS team have comment cards from almost 2,500 patients. Responding to the question “Did you feel the Ward environment was clean?” 94.5% of patients said this was “always” the case and a further 4% felt it was “mostly” the case. All responses have been reviewed and where suggestions have been made, such as the need for a bigger bin in a public toilet, the request has been actioned.

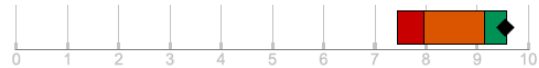
In the National context the Trust was very pleased to have come top in the country for the cleaning related questions in the CQC Inpatient Survey. The survey recorded the experiences of over 62,000 NHS inpatients. The chart below identifies the Trust position, represented by the diamond, against the spread of scores achieved by other NHS Trusts

Q17. In your opinion, how clean was the hospital room or ward that you were in?



Better

Q18. How clean were the toilets and bathrooms that you used in hospital?



Better

Conclusion

The year 2013/14 was another successful period in maintaining low levels of healthcare acquired infection (HCAI), and meeting all the targets set by the Public Health England and the Clinical Commissioning Group at RJAH Orthopaedic Hospital NHS foundation Trust.

Lessons learned from the outbreak of MRSA this year have been implemented, and should ensure best practice in the future, to prevent reoccurrence.

For 2014/15, RJAH strives to keep infection prevention and control high on the agenda at all levels of the Trust in order to continue to put our patients care first, the infection risk from CPE will prove to be a challenge for the Trust in the near future.

Jayne Downey
Director of Infection Prevention and Control
June 2014