✓ 0. Reference Information

Author:	Sue Sayles Phil Davies	Paper date:	June 2020
Executive Sponsor:		Paper Category:	Strategy / Governance and Quality / Performance Delete as appropriate
Paper Reviewed by:	Quality & Safety Committee	Paper Ref:	To be inserted by the person collating the agenda
Forum submitted to:	Quality & Safety Committee	Paper FOIA Status:	Full

1. Purpose of Paper

1.1. Why is this paper going to Trust Board and what input is required?1.2. For approval from Executive Committee.

2. Executive Summary

2.1. Context

The Annual Report provides assurance in terms of compliance with the Code of Practice on the prevention and control of infections and related guidance (The Health and Social Care Act 2008).

2.2. Summary

2019/20 was another year of improvements and new challenges in the continuing campaign to reduce avoidable Health Care Associated Infection (HCAI) at the RJAH Orthopaedic NHS Foundation Trust. (See Figure 1).

Successes include:

- Meeting our MRSA bacteraemia target of zero for the fourteenth year.
- No cases of MSSA bacteraemia.
- No cases of C difficile infection.
- Reduction in HCAI reportable infections
- Reduction in needle stick injuries

The increased flu vaccination uptake of 68.17% from 60.8% during 2018/19 against a target of 75%, demonstrated the hard work of our lead Practice Nurse Facilitator to raise awareness of the benefits of the flu vaccination whilst working alongside Team Prevent and additional nurse vaccinators, improving the accessibility and availability of the flu vaccine to all staff.

This annual report needs to be viewed in the context of a severely depleted infection control team during quarter 3 and 4 due to considerable changes within the team. The Infection Prevention and Control (IPC) Sister and part time surveillance nurse were on long term sick leave. The second part time surveillance nurse resigned from post September 2019 and this position remains vacant. The Infection control data analyst/PA also left the trust in



November 2019. This post was filled in February 2020. The Infection Control Doctor retired in February 2019 and returned on a 0.4 WTE contract during April 2019.

2.3. Conclusion

The Board is asked to:

- (a) To note the report
- (b) To discuss and determine actions as appropriate

Figure 1







3. The Main Report

3.1. Introduction

The Director of Infection Prevention and Control (DIPC) is required to produce an Annual Report on the state of Healthcare Associated Infection (HCAI) in the organisation for which she is responsible and release it publicly according to the Code of Practice on the prevention and control of infections and related guidance (The Health and Social Care Act 2008). The Annual Report is produced for the Chief Executive and Trust Board of Directors and describes the activity of the Infection Prevention and Control Team (IPCT) during the year, including progress made against the work plan and targets identified in the Infection Prevention and Control Annual Programme. It also includes Divisional performance against key areas in Infection Prevention & Control. Ward specific audits are reported on a monthly basis through Trust wide key performance indicators (KPI's).

3.2. Health & Social Care Act Code of Practice

The Robert Jones & Agnes Hunt Orthopaedic Hospital has registered with the Care Quality Commission and have acknowledged full compliance with the Health and Social Care Act (2008) Code of Practice (commonly known as the Hygiene Code).

Compliance criterion	What the registered provider will need to demonstrate
1	Systems to manage and monitor the prevention and control of infection. These systems use risk assessments and consider the susceptibility of service users and any risks that their environment and other users may pose to them.
2	Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections.
3	Ensure appropriate antimicrobial use to optimise patient outcomes and to reduce the risk of adverse events and antimicrobial resistance.
4	Provide suitable accurate information on infections to service users, their visitors and any person concerned with providing further support or nursing/ medical care in a timely fashion.
5	Ensure prompt identification of people who have or are at risk of developing an infection so that they receive timely and appropriate treatment to reduce the risk of transmitting infection to other people.
6	Systems to ensure that all care workers (including contractors and volunteers) are aware of and discharge their responsibilities in the process of preventing and controlling infection.
7	Provide or secure adequate isolation facilities.
8	Secure adequate access to laboratory support as appropriate.
9	Have and adhere to policies, designed for the individual's care and provider organisations that will help to prevent and control infections.
10	Providers have a system in place to manage the occupational health needs and obligations of staff in relation to infection.

The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust

Infection Prevention & Control & Cleanliness Annual Report 2019/20

3.2.1. Criterion 1 a): Systems to manage and monitor the prevention and control of infection.

IPC Structure

The Chief Executive Officer has overall accountability for the control of infection at RJAH.

The **Director of Infection Prevention & Control** is the Executive Lead for the IPC service, and oversees the implementation of the IPC programme of work through her role as Chair of the Trust Infection Prevention and Control and Cleanliness Committee (IPCC). The DIPC approves the Annual IPC report and releases it publicly. She reports directly to the Chief Executive and the board on IPC matters. The DIPC has the authority to challenge inappropriate practice.

The Infection Control Doctor (ICD) is the Clinical Lead for the IPC service.

The ICD is employed by SaTH but is contracted by RJAH for four sessions a week to include clinical microbiology advice and reporting, microbiology ward rounds, antimicrobial stewardship and infection prevention and control advice. The ICD:

- Advises and supports the DIPC
- Oversees local IPC policies and their implementation by ensuring that adequate laboratory support is in place
- > Attends the Water Safety Group and Decontamination Group
- > Chairs the Trust Antimicrobial Stewardship Committee
- > Provides expert clinical advice on infection management
- Attends the weekly Infection MDT meetings and provides expert advice on complex/infected cases
- Has the authority to challenge clinical practice including inappropriate antibiotic prescribing.

The ICD reports to the DIPC on IPC matters.

The Infection Prevention and Control Team (IPCT)

The Infection Prevention and Control Team (IPCT) are the medical and nursing infection prevention and control specialists responsible for carrying out the work described in the infection control programme of work.

RJAH Orthopaedic Hospital NHS Foundation Trust (RJAH) IPCT currently consists of:

- Infection Prevention and Control (IP&C) Clinical Nurse: (1 WTE) Band 7
- Surgical Site Surveillance Nurses: (1.1 WTE) Band 5
- Infection Control Analyst (0.8 WTE): Band 4
- The Infection Control Doctor (0.4 WTE)

In addition to the contracted sessions from the Infection Control Doctor we also have 24hr infection control advice available from the on-call Consultant Microbiologist at SaTH as part of the Pathology SLA.

The **Antimicrobial Pharmacist**: The Trust employs a part time Antimicrobial Pharmacist who works closely with the ICD and other members of the IPC team. There is robust management of antimicrobial stewardship throughout the Trust. The role of the antimicrobial pharmacist includes:



NHS Foundation Trust

The Robert Jones and Agnes Hunt Orthopaedic Hospital

Infection Prevention & Control & Cleanliness Annual Report 2019/20

- Attending and contributing to the Trust Infection Prevention & Control Committee meetings, weekly Infection MDT Meeting and the Antimicrobial Stewardship Committee meetings
- > Supporting antimicrobial stewardship initiatives
- > Participating in and contributing to the weekly ward rounds with the ICD
- Lead for the Trust antimicrobial CQUINs
- > Maintaining a robust programme of audits in line with national guidance
- Providing training and education regarding antimicrobial stewardship to clinical staff within the Trust

Infection Prevention Control Committee

The RJAH Infection Prevention & Control Committee (IPCC) is a multidisciplinary Trust committee with outside representation from Public Health England and the CCG. The IPCC oversees the activity of the IPCT and supervises the implementation of the infection control programme of work. The IPCC met every 3 months during 2019/2020.

Attendance at IPCC

	Apr 2019	July 2019	Oct 2019	Jan 2020
DIPC	\checkmark	\checkmark	\checkmark	\checkmark
ICD	\checkmark	\checkmark	apol	\checkmark
IPCN	\checkmark	\checkmark	\checkmark	\checkmark
Ass. DON	\checkmark	\checkmark	\checkmark	\checkmark
Antimicrobial Pharmacist	apol	\checkmark	apol	\checkmark
Facilities Manager (Estates & Facilities Representation)	\checkmark	\checkmark	\checkmark	\checkmark
Matron (Medicine)	\checkmark	\checkmark	\checkmark	v
Matron (Surgery)	\checkmark	\checkmark	\checkmark	\checkmark
Matron (Theatre & OPD)	apol	\checkmark	\checkmark	\checkmark
Theatre Manager	apol	\checkmark	apol	apol
Head of IPC SCCG & TWCCG	\checkmark	\checkmark	\checkmark	\checkmark
Clinician Rep	apol	\checkmark	apol	V
TSSU Rep	apol	\checkmark	apol	apol

The IPC Programme of Work

The IPC programme of work 2018-21 was specifically designed to focus on achieving full compliance with the standards identified in the Code of Practice, and the achievement of National and local infection related targets, using a template set by the Shropshire & Telford & Wrekin IPC Lead. The Trust has achieved full compliance on all the standards with the exception of having a fit-for-purpose IT system to support surveillance activity. The identification of a most cost-effective solution utilising internal systems and exploring local solutions continues to be required. This has been highlighted and reported on the Risk Register.

IPC Link Practitioner System

The Infection Control Link Practitioner group meets bi-monthly. The purpose of this meeting is to provide advice and support and disseminate information regarding Infection Prevention and Control to their peers within their wards/departments.

Topics of discussion for 2019/2020 have included:

- Raising the awareness of the signs of sepsis
- o Sharps Smart Trial implemented in Spinal and Theatre Teams
- o Catheter Associated Urinary Tract Infections (CAUTI) Datix Reporting
- The role of the Surgical Site Surveillence Nurse.
- Medical Devices CAS Alert Mckinley T34
- Plans to implement environmental audits onto i-Auditor
- FIT testing for FFP3 masks
- Wound clinic Tissue Viability Nurse Support
- o Safer Sharps

Link Nurse Attendance

Ward	April 19	June 19	Aug 19	Oct 19	Dec 19	Feb 20
					No Meeting	
Ludlow	×	×	v			
OPD	\checkmark	~	~	~		√
POAU	\checkmark			×		√
Powys	\checkmark		~			v
Clwyd	\checkmark	~	×			
HDU	\checkmark	\checkmark				
Theatres				~		
Anaesthetics		\checkmark		~		
Recovery	~	~	×	×		
Oswald			~	~		v
Radiology						
TSSU		~	~			
Gladstone	×		×	×		
Wrekin	~		v	v		
SIU OPD	~	~	~	×		
Kenyon				1		v
Alice	1	1		1		
Sheldon	~	~	~	~		√



NHS Foundation Trust

Infection Prevention & Control & Cleanliness Annual Report 2019/20

Therapies		~				√					
Baschurch	~	~		\checkmark							
ORLAU	~	~	√	√							
Library personal	~	~	√	√		1					
Orthotics		~	√	√							

The wards/departments are assessed on their attendance to Infection Control link meetings.

3.2.2. Criterion 1 b): Monitoring the prevention and control of infection

Mandatory Surveillance

Blood Stream Infection

> MRSA

There were 0 cases of MRSA bacteraemia at RJAH in 2019/20. The target remains at 0 MRSA bacteraemia, any case attributed to RJAH would be considered a never event for the Trust.

- MSSA There were 0 cases of MSSA bacteraemia attributed to RJAH in 2019/20.
- Gram Negative bacteraemia

It is a national requirement to report *E.coli*, Klebsiella and *Pseudonomas aeruginosa* blood stream infections. These are attributed to the trust if they occur in patients more than 72 hours after admission.

• E. coli bacteraemia

There were 8 episodes of *E.coli* bacteraemia from 7 patients. This compares to 5 cases in 2018/19. All episodes were reviewed individually to determine whether there were common themes to help identify priority areas for action. The patients were across four different wards. All patients had a urinary catheter and had *E.coli* in a urine culture.

• Klebsiella bacteraemia

There were 3 episodes of Klebsiella bactaeremia from 3 different patients. 2 of these episodes were caused by *Klebsiella pneumoniae* and 1 was caused by *Klebsiella oxytoca*. All of these patients had urinary catheters and 2 grew Klebsiella from their urine samples on admission.

• Pseudomonas aeruginosa bacteraemia

There was 1 episode of *Pseudomonas aeruginosa* bacteraemia attributed to RJAH This was a spinal injury patient who had a urinary catheter on admission.

- C. difficile
 There were no cases of C difficile at RJAH in 2019/20
- Extended Spectrum Beta-Lactamase (ESBL)

There was an increase in number of cases of ESBL urinary tract infection on the Spinal Injuries Unit during quarter 4. These were a mixture of *E coli* and *Klebsiella pneumoniae* from 9 patients, 5 of which were acquired as inpatients at RJAH. Due to the nature of a spinal injury, all of these patients had a urinary catheter which has an increased risk of infection. Patient placements were mapped on a gant chart, there was no association with any particular bed space/side room.

The patients were cohorted in bays and individual risk assessments performed to enable patients to continue the rehabilitation programme safely to prevent cross infection eg attending the gym.

HPV fogging decontamination was undertaken following movement and discharge of cohorted patients.

Surgical Site Surveillance (SSI)

Since July 2008, all hospitals are required to have systems in place to identify patients who are included in the surveillance and later develop a surgical site infection.

The Trust submits surgical site infection data to the PHE database on a quarterly basis; these reports are always one quarter in arrears to allow a window of time for any infections.

PHE analyses the submitted data at quarterly intervals to identify hospitals whose SSI incidence falls above the 90th or below the 10th percentiles nationally for a given surgical category, enabling the Trust to benchmark itself against the national rate of infection.

Surgeon specific data allows the surgical site surveillance team to provide analysis of infection rates to individual surgeons as part of their revalidation and appraisal process.

From April 2019 – March 2020, data on 4044 operations – 1587 Total Hip Replacements (THR), 1586 Total Knee Replacements (TKR) and 871 Spinal surgery was collected by the RJAH surgical site surveillance team. During this period, there have been a total of 26 SSIs reported, 11 THR, 4 TKR, 11 Spinal surgeries, compared to a total of 4294 operations with 28 SSI's 12 THR 6 TKR 10 Spinal surgeries, reported April 2018 – March 2019.

The graph below shows the trends of the total number of SSIs that have been reported to PHE between January 2015 and March 2020. During October 19 to December 19 there were 5 spinal infections which generated an outlier letter from Public Health England. A full investigation of the cases was undertaken there was no correlation between cases however variances in practice were identified including theatre headwear and obtaining intraoperative samples. Full report was submitted to the Medical Director.











10

The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust

Infection Prevention & Control & Cleanliness Annual Report 2019/20





Infection MDT

The Infection MDT continues to meet weekly. The purpose of the MDT is to discuss complex infections and to make recommendations for treatment. The Infection MDT is attended by the Consultant Surgeons, the Consultant Microbiologist, Antimicrobial Pharmacist, the Infection Prevention & Control Team, Radiologist and Histopathologist.

PHE's Surgical Site Surveillance System requirements are to report hips, knees and spines; the Infection MDT reviews patients from all orthopaedic specialities, including upper limb, lower limb, sports & spinal injuries.

Of the patients discussed and reviewed during 2019/20, 169 were agreed to have an infection, 55 of these were identified as having a RJAH acquired infection.

The pie chart below shows the split of RJAH and non-RJAH acquired Infections discussed at Infection MDT during this reporting period:





Infection Prevention & Control & Cleanliness Annual Report 2019/20 Getting it Right First Time (GIRFT)

The Trust participated in the 2019 GIRFT (Getting It Right First Time) SSI audit for surgical site infections in hip, knee, shoulder, elbow, ankle replacements and spinal surgery from May -October with an aim to improve the quality of care within the NHS by reducing unwarranted variations.

The survey is now closed and GIRFT is currently analysing the data with a view to observing not only data for the individual site data packs but to observe for any trends in each specialty. The results for each trust will be shared in a data pack together with data on national averages . The focus of the data pack is to encourage each trust / site that took part to review their data and to raise local awareness of SSI rates and their clinical impact by specialty. Once results have been received these will included in the quarterly reports.

Infection Prevention & Control Ward/Department Audits

Wards and departments complete a robust package of infection prevention and control audits across the year. The toolkit comprises of environmental auditing, which highlights patterns of non-compliance to be addressed, the hand hygiene audit tool includes bare below the elbows and a revised set of High Impact Interventions (Saving Lives) tool which was implemented in January 2018.

The graph below shows the Trust's compliance against each of the individual audits. The results show how the Trust consistently achieves the 95% target in all areas each month.











Environmental Audit

The most common areas of the Environment Audit non-compliance:

- Floors clean and in good state of repair
- Safer sharps devices are not in use.
- Waste, bins are enclosed, foot operated and soft closing
- Furniture clean and in good state of repair. i.e chairs, lockers, tables

Staff are encouraged to raise requisitions with the Estates department, waste and sharps awareness sessions have been held at Link meetings to support staff in raising awareness and educate staff within their departments. A rolling programme of backlog maintenance is in place for floor replacements.

Hand Hygiene & Bare Below the Elbows

The image below shows the hand hygiene and bare below the elbow compliance split by designation. The 'Other' category captures other members of the multi-disciplinary team, such as therapy support, pharmacists and students.



IPC Team Environmental Audits

Orthotics RSH

Areas of improvements identified that required to be addressed:

- The room was malodorous with no ventilation
- No hand wash basin in the office were the secretary's receive dirty soiled footwear,.
- Clinical hand wash basin is being used to pour non gypsonian water down, has a plug and does not have a mixer tap to enable controlled water temperature for hand hygiene
- Carpeted store rooms storing clinical supplies on the floor
- Not enough storage with cluttered areas making it difficult to clean

* The Orthotics department has since been relocated into a suitable area within SaTH



Hydrotherapy Pool

Areas of improvements addressed include:

- Hand hygiene posters required in ladies changing room
- Handrail in poolside shower in poor state of repair
- Arjo trolley on the poolside to be condemned and disposed of and replacement plinths required
- Build-up of rust on the pool floor- to be cleaned/removed

TSSU

Areas of improvements addressed include:

- Theatre wrap and supplies stored on the floor in clean room
- Debris stuck to wheels of trolley in clean room
- Build up of scale to the top and bottom of the washers in the clean room
- Supplies stored on the floor

Ultrasound

Areas of improvements adressed include:

- Scrub sink has cold water only and restricted flow
- Dressing packs /clinical supplies stored on open shelf.
- Damage to wallpaper and walls
- Floors heavily stained and damage

Plaster room

Areas of improvements addressed include:

- Inadequate storage for supplies
- Cupboard doors heavily stained and require painting
- Floor repairs required



High Impact Interventions (Saving Lives)

8111 High Impact Intervention audits were undertaken over quarter 1 with an overall score of 99.73% compliance, which is consistently above the Trust target of 95%. These include insertion and care of peripheral, central and PICC lines; insertion and care of urinary catheters; prevention of surgical site infection.

Audit findings are shared with the Ward Managers. For any wards that fall below the 95% target action plans are implemented.

The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Foundation Trust

Infection Prevention & Control & Cleanliness Annual Report 2019/20



6909 High Impact Intervention audits were undertaken during quarter 2 with a score of 99.77% compliance, which is consistently above the Trust target of 95%. These include insertion and care of peripheral, central and PICC lines; insertion and care of urinary catheters; prevention of surgical site infection.

Audits were undertaken during Quarter 3 and Quarter 4 however due to the depletion of the IPC Team in November 2019 the audits were undertaken but not analysed or inputted. The DIPC at this time was keen to review all the trust IPC audits undertaken and how we monitor their compliance, this meeting is outstanding.

3.2.3. Criterion 2: Provide and maintain a clean and appropriate environment

The Trust understands the importance of a clean, appropriate environment and focuses on providing excellent outcomes.

Cleanliness

Cleaning is provided by the Trust's in-house team of cleaners and deep cleaners; the internal team is supported by external window cleaners and pest control operatives. Cleaning staff are allocated to their own area, giving them ownership of the standard; the number of hours for each area is determined by the Credits for Cleaning information system, with further input from local stakeholders, on a risk adjusted basis.

Outcomes for cleaning are monitored through several sources including internal monitoring, internal patient satisfaction surveys, the PLACE assessment and the CQC inpatient survey. Resources are dynamically moved around the Trust so that the best standard is achieved in all areas.

As part of the agenda for change band 1 closure, staff were supported to transition to a new 'Cleanliness Technician' role (band 2). Key changes to the job description emphasised the role these staff play in monitoring of the Trusts environment, and tasked staff with reporting where cleaning could not effectively take place due to damage or areas needing repair. This

has provided the operational estates team with regular updates to prioritise refurbishments including a programme of painting and wall protection.

The initial number of observed environmental issues has generated considerable work for the estates team, but their response has reflected well in the PLACE score.

Cleanliness – Deep Cleaning

Whilst routine cleaning is completed in all areas on a daily basis, staff in high risk areas are supported with extra staff to complete a deep clean on a weekly basis. In the very high risk area of theatres there is a rolling deep clean programme that runs alongside the routine clean; cleaning in these areas is completed over night, when the theatres are not in use, to provide the most effective service.

In case of an outbreak, the Trust recognises the potential need to employ the use of technologies such as hydrogen peroxide vapour for the fogging of facilities and equipment. The Trust now also has a working relationship with Dewpoint Solutions, whose service can be called upon in less than 24 hours. Responses to date have been quick, effective and professional.

15 individual rooms or bays as well as 2 complete wards have undergone HPV fogging treatment in 2019/20; in each case a stringent process of isolation is undertaken by the estates team alongside a physical clean of the environment and equipment prior to completion.

Cleanliness – Internal Monitoring

The Housekeeping Department has devised an effective sign-off sheet that allows staff to easily demonstrate the work they have completed and alert the next person on shift to any outstanding requirements. Evidence of cleaning is retained by the department and is validated by supervisor monitoring and managerial spot checks.



Internal monitoring is carried out every day, visiting all areas on a weekly basis. Very high risk areas are monitored in collaboration with the clinical team to ensure the broadest picture is seen. All required improvements identified by the audits are acted upon by the internal team and the results, along with the patient survey, go to the Infection Prevention & Control Committee on a quarterly basis.

The Trust has a risk based national cleanliness target of 85%, internally the Trust has set a 94% target, for the year 2019/20 the Trust achieved an average score of 98.48%.

Infection Prevention & Control & Cleanliness Annual Report 2019/20 Cleanliness – Patient Satisfaction – Internal

Feedback from service users is very important, internal monitoring very much aligns to the feedback PALS (Patient Advice and Liaison Service) receive from the patient. On a monthly basis an internal team speaks to patients one to one and also reviews feedback forms that the patient can fill in privately. The results are fed back to the Estates and Facilities team to act upon.

Further to the categorisation of cleanliness standards through the patient surveys, the department also reviews every comment as part of its 360° review and learns as a team from negative feedback but also highlights the numerous positive comments associated with the hard work of the cleaning team.

Overall comments in 2019/20 comments have been very positive, with no overarching negative themes.

Cleanliness and Environment - Kitchen

The Trust kitchen retained its 5 star food hygiene rating, undergoing an environmental health inspection in February 2020.

Supporting this inspection, the Trust procures a separate external food safety audit which produces a detailed action plan.

PLACE – Patient Led Assessment of the Care Environment

The 2019 PLACE assessment identified many positives for the Trust and also areas to work upon.



In relation to cleanliness and the environment;

- Cleanliness maintained its high standard, consistent with previous years and the internal reporting that goes to the Infection Control Committee quarterly. The two issue identified were mostly related to litter in ward areas and were resolved immediately.
- The condition, appearance and maintenance metric highlights the fact that scoring is based on patient's perception on the day. Whilst estates believe there are multiple areas for improvement in areas such as the poor lighting in Powys ward, patients on the day described Powys as 'inviting and familiar'. Areas that were raised by the

patient assessors focused on flooring giving the perception that the floors weren't clean even though on inspection they were found to be clean due to the floors age. Estates have a programme to replace and improve flooring but this is heavily dependent on access.

- As mentioned, the role of the cleanliness technician in reporting environmental issues saw a high level of minor tasks reported, the resulting work has clearly reflected in the high level of satisfaction the patient assessors had on the day.
- The PLACE collection has been substantially reviewed and refined since publication of the 2018 results. 2019 scores therefore establish a new baseline, and cannot be compared with figures from earlier years; however the Trust can benchmark itself against similar peers to support analysis of areas for improvement.

All PLACE elements are addressed through the quarterly Infection Prevention & Control Committee; these include elements that fall outside of Criterion 2; cleanliness and the environment.

Linen

In 2019/20; quarterly review meetings continued to ensure standards relating to the provision of linen were monitored. The annual audit, undertaken by the multidisciplinary facilities & infection control teams on behalf of the consortium, raised concerns covering cleanliness, health and safety and processing standard procedures of the providing Trust (Mid Cheshire Hopsitals NHS Foundation Trust – MCHT). Through a formal contract review notice, and in line with the associated action plan, a number of isses were addressed. Follow up assessments in the short term noted significant improvements to the compliance of the facilities giving respective boards assurance that previously highlighted risks had been mitigated.

Towards the end of the calender year, MCHT suffered significant mechanical breakdowns and following an options appraisal, MCHT determined that long term provision of the contract was not financially feasible. With the assistance of all Trusts involved, MCHT transitioned the service to one of the leading external providers. For assurance, the Trusts assessed the external provider to ensure the compliance of the service and are satisfied with what was witnessed. Long term, MCHT and the consortium are looking to negotiate an external contract achieveing economies of scale with their collective buying power.

Estates Department Contribution to the Clean and Appropriate Work Environment

Estates department activity is essential in delivering the IPC agenda, and is delivered under the principles outlined in two main documents:-

1. Health Building Note 00-09 (Department of Health, 2013 -which supersedes and replaces all versions of Health Facilities Note 30) and covers the importance of a clean, safe environment for all aspects of Healthcare.

2. Health Technical Memorandum 04 01, The Control of Legionella, hygiene, "safe" hot water, cold water and drinking water systems."

Part A: Design, installation and testing, and

Part B: Operational management. (Department of Health (DOH) 2006). CWP's 'control of Legionella' closely adopts the requirements of the above HTM.

The control of water is covered by the legal requirements of the Health & Safety at Work Act 1974 concerning risks from exposure to legionella and guidance on compliance with the relevant parts of the Management of Health and Safety at Work Regulations 1999.

Water safety is managed and controlled by the estates department to guidance HSG274 and HTM 04. The Estates department continues to employ a third party contractor to provide technical advice for water services and undertake water risk assessments on Trust properties every two years, or where required following incidents or significant infrastructure changes. There is a written site specific scheme of control for each inpatient premises. Eurofins provide the Trust an internet based water testing database storage and reporting for statutory test results. There is also a three monthly review of test results, control measures and procedures at the Water Safety Group to ensure compliance with current legislation and these results are published at the Infection Prevention Control Working Group.

The Trust have appointed an Authorising Engineer (Water) (AE(W)), on 27/01/2020. The AE will be conducting an audit of the site infrastructure and Estates' management of such, later this year. The AE(W) is a 'critical friend', a requirement of HTM 04-01b and offers technical advice to the Estates Engineers, auditing the management of water safety and increasing the Trust's resilience and bolsters the management of water hygiene.

Estates Operational Service continually undertake water tests throughout the Trust estate, this water testing is carried out under legislation and guidance set out by The Health & Safety Executive and the Department of Health. Testing is standard practice at RJAH to ensure robust control of waterborne infections such as leginaellosis; it is a method of using quantitative data to measure that our planned maintenance is successfully controlling growth of microorganisms in the potable water supply. During May 19 – April 20 at total of 680 water sample tests were undertaken, this is a greater frequency than required by guidance; the purpose of which is to identify potential issues sooner so that corrective actions can be implemented at the earliest possible time.

In response to these tests, thermal disinfection has been undertaken in some areas' domestic water supplies – this process has increased efficacy and reduces costs as the works are now completed by the in house Estates' Mechanical Technicians. Disinfection is often employed to manage domestic water hygiene.

Tender for replacement of main water storage tanks 22/05/2020, currently under tender evaluation. Replacing the 1970s main water storage tanks will bring the trust in line to current regulation and guidance standards.

The last risk assessment highlighted actions to be resolved around the infrastructure in the main service duct. This work has now commenced, being completed by the Estates Mechanical team, to be completed by October 2020.

Decontamination Group

Decontamination covers the theatre and sterile services environment under the guidance of HTM 03-01.

Decontamination is led and monitored by the estates department supported by their third party accredited Authorising Engineer AE(D).

Accredited third party contractors revalidates theatres on an annual basis, providing an inspection and reverification report. These reports are then reviewed by the AE(D)

The RJAH estates team maintain a local testing regime on a monthly basis to proactively manage any issues with compliance.



Further, there is a three monthly review of test results, control measures and procedures to ensure compliance with current legislation and these results are published at a sub-committee of the Infection Prevention & Control & Cleanliness Committee.

Annual revalidations continue to be completed by approved contractors, with the AE(D) sighted on reports, and any follow up maintenance.

Due to issues with the resin floor, Theatre 8 floor covering was replaced in June 2020. Theatres 7, 9 and 10 are booked in throughout Q2/3.

Due to the Covid-19 response, extensive face mask fit testing conducted co-ordinated by H&S Officer has been rolled out across the Trust.

COVID19 – Estates & Facilities Response

At the very end of quarter 4, the Trust began to implement changes on site in response to the escalating COVID needs, in line with the desktop exercises it had undertaken to test its contingency plans.

E&F took a leadership role in personal protective equipment (PPE), working closely with procurement to ensure the service was always adequately supported with compliant PPE. E&F supported the Trust with operational environmental optimisations, that include air change and pressure regime considerations, enhanced touch point cleaning and access restrictions.

Guidance was received from NHS futures, which proved a good way of centralising all information, allowing discussion forums where Trusts could assist in interpreting how the national guidance affected local needs.

All information was pooled and Estates & Facilities worked collaboratively with infection control on a comprehensive board assurance framework in order to evidence the practices we committed to delivering were achieved.



3.2.4. Criterion 3: Ensure appropriate antimicrobial use

Total antimicrobials

The graph above shows the issue of total antibiotics from pharmacy in DDDs per 1000 admissions. This is showing an overall increasing trend since 2013. This trend has been noted in other Trusts and thought it may be due to the impact in the last few years of the sepsis campaigns encouraging prescribers not to delay or withhold initiating antibiotic treatment.





Carbapenems & Piperacillin /Tazobactam (Tazocin)

The graphs above show the issue of carbapenem and piperacillin/tazobactam respectively from pharmacy in DDDs per 1000 admissions.

Carbapenem and Tazocin usage is monitored in the Trust and are only issued per patient. Prudent use of these antibiotics is essential as current evidence clearly demonstrates that the inappropriate use of broad-spectrum antimicrobials is associated with the selection of antimicrobial resistant bacteria.

Tazocin shows a slight downward trend in issue over this time, whereas there is a slight increase in the trend for carbapenems. Neither are issued as stock to the wards and clinical screening for appropriate use takes place by a pharmacist before they are issued. Microbiology approval is sought for all indications not cited in the antibiotic policy. Therefore the issue of these antibiotics is tightly controlled.



S

Infection Prevention & Control & Cleanliness Annual Report 2019/20



Use of a Gentamicin calculator on the RJAH intranet (Applications section), to improve gentamicin prescribing and patient safety.



RJAH Antibiotic Stewardship Report February 2019

Continued contribution to the 'Local Health economy infection prevention and control and antimicrobial prescribing group' on a quarterly basis.

Continuation of ongoing programme of audit & feedback. Quarterly Point Prevalence Studies to monitor adherence to 'Start Smart- Then Focus' principles from PHE's Antimicrobial Stewardship toolkit.





Antimicrobial stewardship awareness presentation at LINK nurse meeting.





Antimicrobial Stewardship Pharmacist attendance at Infection MDT.

2 Pharmacists qualified as a non-medical prescriber in specific areas of antibiotic prescribing





Pharmacist attendance at The West Midlands Antimicrobial pharmacist's quarterly meeting. This aims to work collaboratively to improve standards & efficiency of antimicrobial pharmacy practice across the region, sharing best practice and innovation and bench marking regional practice.





Introduction of a box in the Emergency Drug Cupboard (EDC) containing antibiotics required if sepsis diagnosed in a person other than an inpatient e.g. a clinic attender or visitor.

Pilot of new drug card, incorporating specific sections for antibiotic prescribing





Achievement of Antimicrobial resistance CQUIN 2019/20: Lower urinary tract infection in over 65 year olds completed with a drop in session in December 2019





3.2.5. Criterion 4: Provide suitable accurate information on infections to service users

All patients with alert organisms are seen by the infection control nurse and information leaflets are provided. The microbiologist will also give advice and support to patients and their relatives upon request.

The Trust promotes best practice in infection prevention and control to its patients, relatives and visitors; highlighting the roles they can play in preventing infection through the website, targeted poster campaigns, and promotional events such as hand hygiene day.

The patient comment cards are used as a resource of data – including a specific question asking "Did the staff practice good hand hygiene". The results shown below provide encouraging feedback from a patient's perspective.



3.2.6. Criterion 5: Ensure prompt identification of people who have or are at risk of developing an infection

Patients who are at risk or require extra attention – this includes those unable to maintain high levels of hygiene standards, with poor quality skin or at risk of falls. Stakeholders receive an email with patient summaries and suggestions of actions to be in place in readiness for admission & surgery.





	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20	Mar 20	Apr 20
Eligible patients	891	973	907	936	939	1043	1106	1024	863	1077	961	662	166
Screened for MRSA	885	972	903	929	939	1041	1106	1020	862	1074	959	660	166
% achieved	99.33%	99.90%	99.56%	99.25%	100.00%	99.81%	100.00%	99.61%	99.88%	99.72%	99.79%	99.70%	100.00%
Target	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

The graph and table above demonstrates the MRSA screening compliance which is consistently above 99%, set against a Trust target of 100%.

CPE screening is performed on any patients who have been transferred from inner city hospitals or have been hospitalised abroad as per national guidance.

MRSA positive cases and ESBL infections are alerted to the IPCT daily as part of the lab reporting system, which are disseminated to the relevant departments; this ensures that positive cases can be decolonised within a timely framework preventing prolonged postponements of patient surgery.

The Infection Control Nurse/Surgical Site Surveillance Nurse provides advice and support to patients/relatives in the event of acquiring infection.



3.2.7. Criterion 6: Systems to ensure that all care workers (including contractors and volunteers) are aware of and discharge their responsibilities in the process of preventing and controlling infection.

Training Compliance

Core Training Co	mpliance - Infection Prevention & Control - 31 March 2020	Including Bank Staff					
Validity Period	Course Name	Total number of staff required to complete training	Total number of staff complete d training	Total number of staff still to complete	Compliance Percentage		
Annual	Infection Prevention & Control (Clinical Staff)	901	836	65	92.79%		
3 Yearly	Infection Prevention & Control (Non-clinical Staff)	590	559	31	94.75%		
Annual/3 Yearly	Infection Prevention & Control combined Clinical and Non-	1491	1395	96	93.56%		



Additional training sessions provided by the IPCN include:

- Induction training of 45 minutes for all clinical and non-clinical staff (separate sessions for junior hospital doctors).
- > All new/rotational doctors receive a short induction session provided by the IPCN.
- > All volunteers receive a short training presentation and hand hygiene education.
- The team is part of the work experience programme run by the Trust on a quarterly basis.
- > Provided 'train the trainer' education for link practitioners.
- > Engage in the work experience programme based at RJAH



- > Engage in the Trust preceptorship programme
- Provided workshop training sessions at ward training days
- Face to face training for groups of staff such as:
 - o Catering
 - Porters
 - o **Domestics**
 - Estates Maintenance staff

3.2.8. Criterion 7: Provide or secure adequate isolation facilities

The Trust has always been able to accommodate patient isolation with minimal disruption to the running of the wards. However, due to the increase of patients carrying antibiotic resistant organisms requiring siderooms for isolation, the installation of additional doors to the bays has been implemented on the spinal injuries unit to enable patients with the same carriage to be cohorted together in an isolated bay with the doors acting as a barrier as well as a reminder for staff to implement standard precautions.

3.2.9. Criterion 8: Secure adequate access to laboratory support as appropriate.

The management of prosthetic joint infection is challenging, the microbiology ward round is held once a week with the microbiologist, infection control nurse and the antimicrobial pharmacist. Each patient is reviewed and requires a tailored approach of antimicrobial prescribing due to the microorganisms grown on culture.

The microbiology lab sends a daily list of all positive samples including sensitivities. This enables all patients to receive the appropriate treatment/antibiotic therapy and prompt isolation if required.

3.2.10. Criterion 9: Have and adhere to policies, designed for the individual's care and provider organisations that will help to prevent and control infections

Infection Prevention & Control Policies & Standard Operation Procedures (SOP) are reviewed and agreed at the Infection Prevention & Control Committee. IPC currently operates with 1 Infection Prevention & Control Policy, A framework of Infection Prevention & Control and specific IPC standard operating procedures.

Policies Reviewed Published in 2019- 20
Infection Prevention and Control Policy
Tuberculosis
Influenza Policy & Procedure
Cleaning and Decontamination
Cleaning Policy 2020
LIVE Cleaning Operations 2020

There has been a backlog of policies being reviewed as a result of other priorities, therefore a programme to review is set as a priority for 2020/21



3.2.11. Criterion 10: Providers have a system in place to manage the occupational health needs and obligations of staff in relation to infection.

Team Prevent Occupational Health and Employee Wellbeing

Team Prevent is committed to the protection of all Trust employees as an essential part of Infection Control. In line with the Health and Social Care Act 2013 and Department of Health Guidelines, Team Prevent have arrangements in place for assessing the immunisation status of all Trust employees as well as regularly reviewing the immunisation status of existing healthcare workers and providing vaccinations as necessary and in accordance with the Green Book to reduce the risk and spread of vaccine-preventable disease.

Blood Bourne Virus Exposure

Blood Borne Virus Exposure incidents or injuries may represent a significant risk to staff working in health care environments.

Under Health and Safety Legislation, Team Prevent work collaboratively with the Trust to ensure their responsibility for the health and safety of staff in relation to preventing, reducing and controlling the risks of healthcare associated infection and management of occupational exposure to blood-borne viruses and post exposure prophylaxis.

Team Prevent are responsible for the assessment and follow up of all Blood Borne Virus exposure incidents occurring during departmental opening hours and for the follow up of those exposure incidents occurring out of hours in Emergency Departments.

2019/20 exposure incidents reported to Team Prevent was 20 which is a reduction since 2018/19 figures. 90% were due to a percutaneous injury, 10% were identified as low risk injuries. The highest number of incidents occurred in theatres.



1	Tean prever	n nt							(m	onths	with zer	M o data v	onti O vill not	thly Dashboard - RJAH Org Level 1 - RJAH From 1 April 2019 to 31 March 2020 ot be displayed)
Innoculatio	on/BBV Incidents	Apr	May	Jun	Jul	Aug	Sep	Oct	Dec	Jan	Feb	Mar	Total	BBV Exposure
RJAH	Null	19	19	19	19	19	19	19	19	20	20	20	6	6 Low Risk Injury 21%
	Bank	1											1	1
	Domestic Services	1											1	Percutaneous Injury (includes bites) 79%
	Foot and Ankle							1					1	1 0% 10% 20% 30% 40% 50% 80% 70% 80%
	High Dependency Unit - HDU		1										1	¹ BBV Episodes BBV Episodes
	Midland Centre For Spinal Injuries		1										1	1 Apr 19 RJAH Null
	Physiotherapy	1											1	May 19 Bank 1 Jun 19 Domestic Services
	Powys Ward	1			1						1		3	3 Jul 19 Foot and Ankle
	Rotational Nurse					1							1	Aug 19 1 Nidland Centre For Spinal Jaiwing
	Surgical										1		1	1 Oct 19 Physiotherapy
	Theatres			1		1		1	1	2	2		6	6 Dec 19 Rotational Nurse
	Theatres - Consultant Surgeons								1				1	Jan 20 1 Surgical
	Total	4	3	2	2	3	1	2	2	: :	2 2	1	24	4 Mar 20 Theatres
Grand Total		4	3	2	2	3	1	2	2	: 1	2 2	1	24	4 0 2 4 0 2 4 No. of Episodes No. of Episod





Monthly Dashboard - RJAH Org Level 1 - RJAH From 1 April 2019 to 31 March 2020

(months with zero data will not be displayed)

	Month of Event Attendance Date												
Question	Quest Answer	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Dec 19	Jan 20	Feb 20	Mar 20	Total
Was the Injury reported out of hours and the individual	No	2	5	2	2	1	1	2	2	2	1	1	21
obtained treatment or assessment from A&E or another source before speaking to Team Prevent?	Yes					1	1				1		3

Needlestick Type of Instrument (Data is only captured as part of the nurse review and not the intitial consultation)

Client Directorate Client Service Quest Answer Jan-20	Grand Total
DIALL Transferre Diada 1	
RUAH Ineatres Blade I	'

Safer Sharp Regulations

The Health and Safety (Sharp Instruments in Healthcare) Regulations came into effect in May 2013 requiring employers to use safer sharps which incorporate protection mechanisms to prevent or minimise the risk of accidental injury.

Following a review of safer sharps it was highlighted that the trust is failing to comply with the above regulations.

An audit across all departments within the Trust was undertaken in April 2019 and results were fed back to the Innovation Committee.

A Safer Sharps Working Group was established with a remit to ensure the trust is compliant with the regulations.

A comprehensive risk assessment of the high risk areas including theatres and recovery has been undertaken and safer sharp devices have been trailled throughout the trust. This has led to a declining trend in needlestick injury reported.

The graph below is a breakdown of reported Needlestick / Sharps incidents in the last 12 months:



A Safer Sharps and needlestick awareness campaign was launched through social media and internal staff communications.

3.3. Serious Incidents/ Periods of Increased Incidence

There were no Infection Prevention & Control Serious Incidents reported during 2019/20.

At the very end of quarter 4, the Trust began to implement changes in response to the escalating COVID outbreak.

The IPC Team took a leadership role in screening, isolating and cohorting patients.

Infection and Prevention and Control measures included:

- Early recognition/reporting of cases.
- Early assessment/triaging of cases.
- Maintaining separation in space and/or time between suspected and confirmed COVID-19 patients
- Educating staff and patients about Standard infection control precautions
- Prompt implementation of Transmission Based Precautions (TBPs) including the appropriate use of Personal Protective equipment (PPE) to limit transmission.
- Restricting access of visitors to the trust.
- Participation in the planning and implementation of strategies for surge capacity.

The first COVID-19 positive patient in the Trust was diagnosed on 31st March 2020.

Conclusion

The year 2019/20 was another successful period in meeting the targets set by Public Health England and the Clinical Commissioning Group at RJAH Orthopaedic Hospital.

The Infection prevention and control team have continued to provide an essential service to the Trust encompassing the Infection Prevention and Control service and surgical site surveillance service, microbiology ward rounds, post infection review/root cause analysis meetings and audit.

The Director of Infection Prevention and Control role saw considerable change in which there have been three appointments in the last 12 months.

Christine Morris: Interim Director of Infection Prevention and Control (DIPC)

Sue Sayles: Infection Prevention and Control Sister

June 2020



Infection Prevention & Control & Cleanliness Annual Report 2019/20 Key Areas of Focus for 20/21

Achievir National Infection	ng PHE & CCG targets	PIR of a report positiv cul	ll patients ed with ve blood tures	IT Solu Infe Preve Co	ution for ection ention & ntrol
Improve v and int	website ranet	Exten Viability	d Tissue Provision	Provid Wour se	e a 5 day nd Clinic rvice
	Policy F	Review	Additiona site surve all Ortho Specia	al surgical illance for opaedic alities	



Appendix 1: Acronyms

AE (D)	Authorised Engineer (D)
AMS	Antimicrobial Stewardship Committee
ANTT	Aseptic Not Touch Technique
CAUTI	Catheter-Associated Urinary Tract Infection
CCDC	Consultant in Communicable Disease Control
CCG	Clinical Commissioning Group
CPE	Carbapenemase-producing Enterobacteriaceae
CQC	Care Quality Commission
CQUIN	Commissioning for Quality and Innovation
DIPC	Director of Infection Prevention & Control
E.Coli	Escherichia coli
EPR	Electronic Patient Record
ESBL	Extended Spectrum Beta Lactamase
GIRFT	Getting It Right First Time
HCAI	Healthcare Associated Infection
HEE	Health Education England
HPV	Hydrogen Peroxide Vapour
НТМ	Health Technical Memorandum
IPC	Infection Prevention & Control
IPCC	Infection Prevention & Control Committee
IPCT	Infection Prevention & Control Team
ICD	Infection Control Doctor
IV	Intravenous
JAC	JAC – Electronic Pharmacy System
KPI's	Key Performance Indicators
MDT	Multi Disciplinary Team
MRSA	Methicillin-resistant Staphylococcus aureus
MSSA	Methicillin-sensitive Staphylococcus aureus
PALS	Patient Advice and Liason Service
PHE	Public Health England
PIR	Post Infection Review
PLACE	Patient Led Assessment of the Care Environment



Appendix 1: Acronyms Continued:

RCA	Root Cause Analysis
RSH	Royal Shrewsbury Hospital
SATH	Shrewsbury and Telford Hospitals
SCCG	Shropshire Clinical Commissioning Group
SSI	Surgical Site Surveillance
SNAHP	Senior Nurse and Allied Health Professionals
SOP	Standard Operating Procedure
STAR	Sustaining Through Assessment and Review
TSSU	Theatre Sterile Services Unit
WTE	Whole Time Equivalent

Infection Prevention & Control & Cleanliness Annual Report 2019/20 Appendix 2: Glossary

Bacteraemia	The presence of bacteria in the blood without clinical signs or symptoms of infection
C. difficile	or C. diff is short for Clostridium difficile. It is a type of bacteria (germ) which less than 5% of the population carry in their gut without becoming ill. It is normally kept under control by the 'good' bacteria in the gut. However, when the good bacteria are reduced, e.g. by taking antibiotics, C. difficile can multiply and produce toxins (poisons) which can cause diarrhoea. The C. difficile bacteria form spores (germs that have a protective coating). These spores are shed in the diarrhoea of an infected person and can survive for a long time in the environment. C. difficile is highly infectious and can be spread from patient to patient unless strict hygiene measures are followed.
E coli	is an organism we all carry in our gut, and most of the time it is completely harmless. It is part of the coliform group of bacteria – often known as Gram Negative bacteria. Most strains do not cause any symptoms while being carried in the gut. Instead E coli forms part of our "friendly" colonising gut bacteria. However when it escapes the gut it can be dangerous. E coli is the commonest cause of blood stream infections (bacteraemia) in the community. The most frequent problem it causes is a urinary tract infection, but it can also cause infections in the abdomen such as gallbladder infections or following perforations of the bowel.
HCAI	Health Care Associated Infection. An infection acquired as a result of receiving treatment in a health care setting.
MRSA	or Methicillin Resistant Staph aureus, is a highly resistant strain of the common bacteria, Staph aureus. Bloodstream infections (bacteraemia) cases are the most serious form of infection where bacteria, in this case MRSA, escape from the local site of infection, such as an abscess or wound infection, and spread throughout the body via the bloodstream. All cases of MRSA detected in the blood are reported by the trust.
MSSA	or Methicillin Sensitive Staph aureus, is the more common sensitive strain of Staph aureus. Up to 25% of us are colonised with this organism. Mostly it causes us no problem but it is a frequent cause of skin, soft tissue and bone infections. As with its more resistant cousin, MRSA, sometimes the infection can escape into the bloodstream producing a "bacteraemia" i.e. bacteria in the blood. Unlike MRSA, the majority of the infections will be acquired in the community, and are not associated with health care. However, some may arise as a consequence of health care, and like MRSA, it can arise from infected peripheral and central intravenous lines and other health care interventions. We were asked by the Department of Health in 2011 to report all MSSA bacteraemia cases, whether acquired in the community or in hospital, so that we can review the sources and identify potentially avoidable cases. So far no targets have been set. However, we can compare ourselves with other trusts and put in interventions to further reduce infections.