

Director of Infection Prevention and Control Annual Report 2020/21

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Introduction from the Director of Infection Prevention and Control

Infection Prevention and Control (IPC) is fundamental in improving the safety and quality of care provided to patients. Healthcare Associated Infection (HCAI) can cause significant harm to those infected. As a result, IPC remains a key priority for the Royal Orthopaedic Hospital NHS Foundation Trust (ROH).

I am proud to be able to present the Director of Infection Prevention and Control's annual report for 2020/2021

The work of the IPC team and the Trust was significantly impacted by the COVID-19 pandemic from mid-January 2020, initially with the management of potential cases of SARS-CoV-2 infection as a high consequence infectious disease (HCID), and then as significant numbers of cases were managed in the Trust in March 2020 onwards. Further to this the NHS continues to experience unprecedented challenge clinically, operationally, and economically. However, our staff have sustained a culture of continuous improvement which is both patient-centred and safety-focused. Our vision is to constantly provide the highest possible standards of care across our healthcare economy. You can learn all about the challenges faced by the ROH during the pandemic within this report.

The Trust recognises that the effective prevention and control of HCAIs is essential to ensure that patients using services at ROH receive safe and effective care. Effective prevention and control must be an integral part of everyday practice and applied consistently to ensure the safety of our patients. In addition, good management and organisational processes are crucial to ensure high standards of infection prevention and control measures are maintained. During the pandemic we continued this work to the standard we have always worked to.

This report demonstrates how the Trust has systems in place, for compliance with the Health and Social Care Act 2008: Code of Practice for the NHS on the prevention and control of healthcare associated infections and related guidance (see table of criteria on following page). The IPC agenda has continued to be strengthened with a highly visible Infection Prevention Team and a new IPC Matron. The development of our IPC nurses is in line with the national core competency framework, developed by the Infection Prevention Society and endorsed by the Department of Health (2011).

This report summarises the combined activities, commitment and hard work of the IPC Team, Board colleagues, all staff, governors and volunteers across ROH, Clinical Commissioning Groups (CCG) and Public Health England (PHE) in relation to the prevention of avoidable HCAIs.

Garry Marsh

Executive Director of Nursing and Clinical Governance
Director of Infection Prevention and Control



This report demonstrates how the Trust has systems in place for compliance with the Health and Social Care Act 2008: Code of Practice for the NHS on the prevention and control of healthcare associated infections and related guidance.

The Trust set out to continue the commitment to improve performance in infection prevention practice. As outlined in the Health and Social Care Act 2008, at the heart of this there are two principles:

- to deliver continuous improvements of care
- it meets the need of the patient

Compliance with the Health Act is judged against 10 criteria which we will look at in detail in the next section.

Criterion	Detail
Criterion 1	There are systems to monitor the prevention and control of infection. These systems use risk assessments & consider the susceptibility of service users and any risks that their environment and other users may pose to them
Criterion 2	Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections
Criterion 3	Ensure appropriate antimicrobial use to optimise patient outcomes and reduce the risk of adverse events and antimicrobial resistance
Criterion 4	Provide suitable accurate information on infectious to service users, their visitors and any person concerned with providing further support or nursing/medical care in a timely fashion
Criterion 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
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.
Criterion 7	Provide or secure adequate isolation facilities
Criterion 8	Secure adequate access to laboratory support as appropriate
Criterion 9	Have and adhere to policies, designed for the individual's care and provider organisations, that will help to prevent and control infections
Criterion 10	Providers have a system in place to manage the occupational health needs and obligations of staff in relation to infection

Hygiene Code Criteria and Contents of report

1. Systems to manage and monitor the prevention and control of infection. These systems use risk assessments and consider how susceptible service users are and any risks that their environment and other users may pose to them.
 - a. The Director of Infection Prevention and Control
 - b. The Infection Prevention and Control Team
 - c. Committee Structures and Assurance Processes
 - d. Trust Board
 - e. Quality and Safety Committee
 - f. Infection Prevention and Control Committee
 - g. Surveillance of Healthcare Associated Infection (HCAI)
 - h. Methicillin resistant *staphylococcus aureus* blood stream infections (MRSA)
 - i. Methicillin-sensitive *staphylococcus aureus* blood stream infections (MSSA)
 - j. *Clostridioides difficile* Infection (CDI)
 - k. Preventing and controlling the spread of CDI
 - l. Gram negative – bloodstream infections – *Escherichia coli* (E-coli)
 - m. Vancomycin/glycopeptide resistant *enterococci* (VRE/GRE)
 - n. Carbapenemase producing *enterobacteriaceae* (CPE)
 - o. Tuberculosis (TB)
 - p. Norovirus outbreaks
 - q. COVID-19
 - r. Audit programme to ensure key policies are implemented
 - s. Audits of hand hygiene practice
 - t. Staff information and training
 - u. Seasonal Staff Influenza Vaccination Campaign
 - v. IPC Link Practitioners
2. Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infection.
 - 2.1 Providing a clean safe environment**
 - 2.2 Water Systems Management**
 - 2.3 Management of Decontamination**
3. Ensure appropriate antibiotic 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.
 - 5.1 Surgical Site Infection (SSI)**
6. Systems to ensure that all care workers (including contractors and volunteers) are aware of the discharge 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 help to prevent and control infections.
10. Providers have a system in place to manage the occupational health needs of staff in relation to infection.

COVID-19 and this data

It is clear that the global pandemic of COVID-19 is having an effect on the number of cases reported to the surveillance of BSI and CDI. From an analysis of voluntary microbiology surveillance, there has also been a reduction in the number of cases of other bloodstream infections, not only those covered by the mandatory surveillance. In response to the pandemic, many elective procedures in hospitals were cancelled. Hospital patient populations changed dramatically in their composition; in order for us to understand the true incidence rate of infections, we will need to consider closely these changes. Section 1Q of this report will detail the Trusts response to the COVID-19 pandemic.

Compliance criterion 1

- 1. Systems to manage and monitor the prevention and control of infection. These systems use risk assessments and consider how susceptible service users are and any risks that their environment and other users may pose to them.**

1a) The Director of Infection Prevention and Control

The Director of Infection Prevention and Control (DIPC) is a role (whether by that name or another) required by all registered NHS care providers under current legislation (The Health and Social Care Act 2008). The DIPC will have the executive authority and responsibility for ensuring strategies are implemented to prevent avoidable HCAs at all levels in the organisation.

The DIPC will be the public face of IPC and will be responsible for the Trust's annual report, providing details on the organisations IPC programme and publication of HCAI data for the organisation. The DIPC will offer commitment to quality and patient safety, good communication and reporting channels and access to people with expert prevention and control advice. At the ROH the Executive Director of Nursing and Governance holds the role of DIPC.

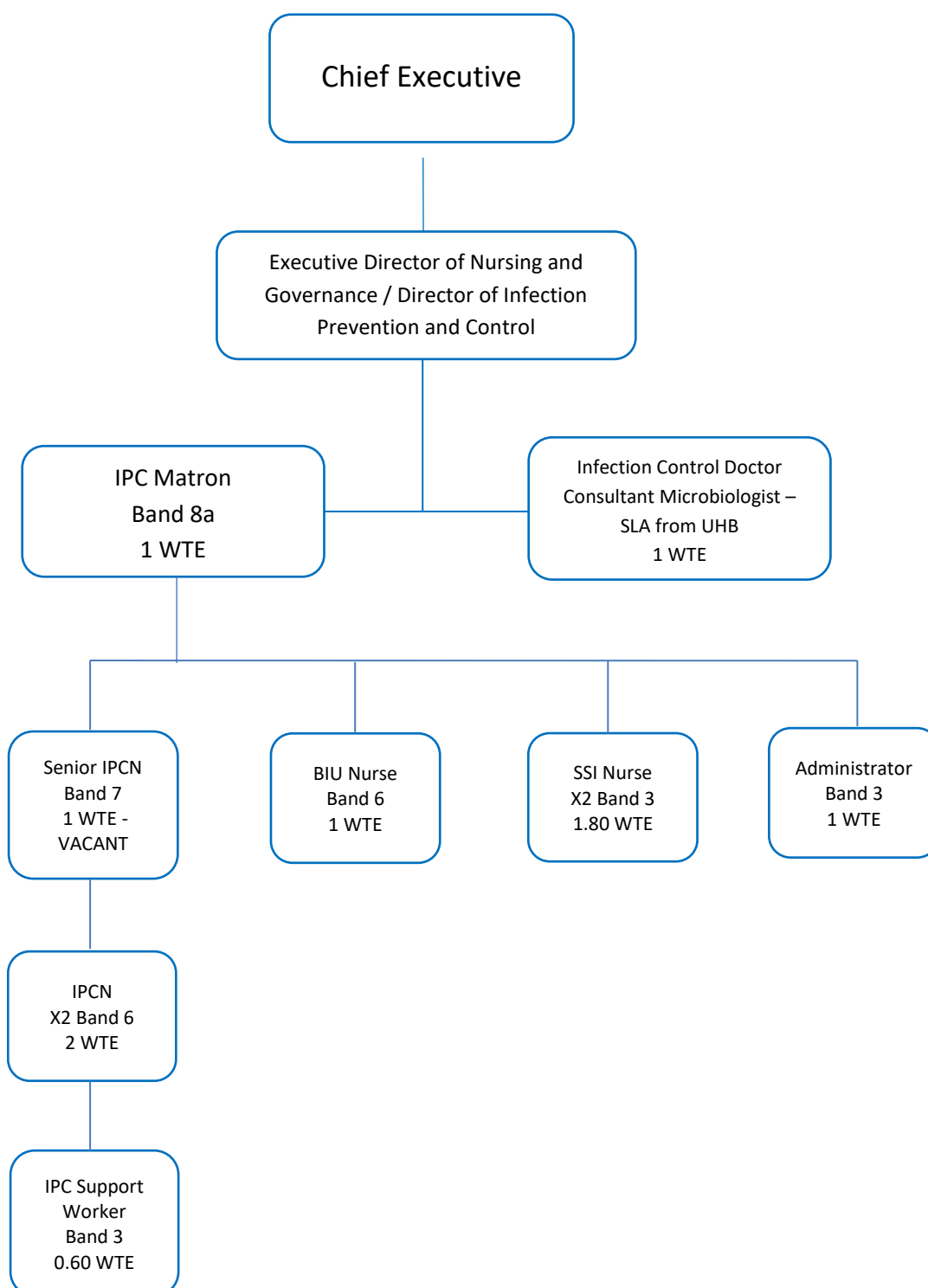
1b) The Infection Prevention and Control Team

The IPC Team is led by the Matron for IPC and is supported by Infection Prevention Nurse Specialists, Surgical Site Surveillance Health Care Assistants and an Administrator.

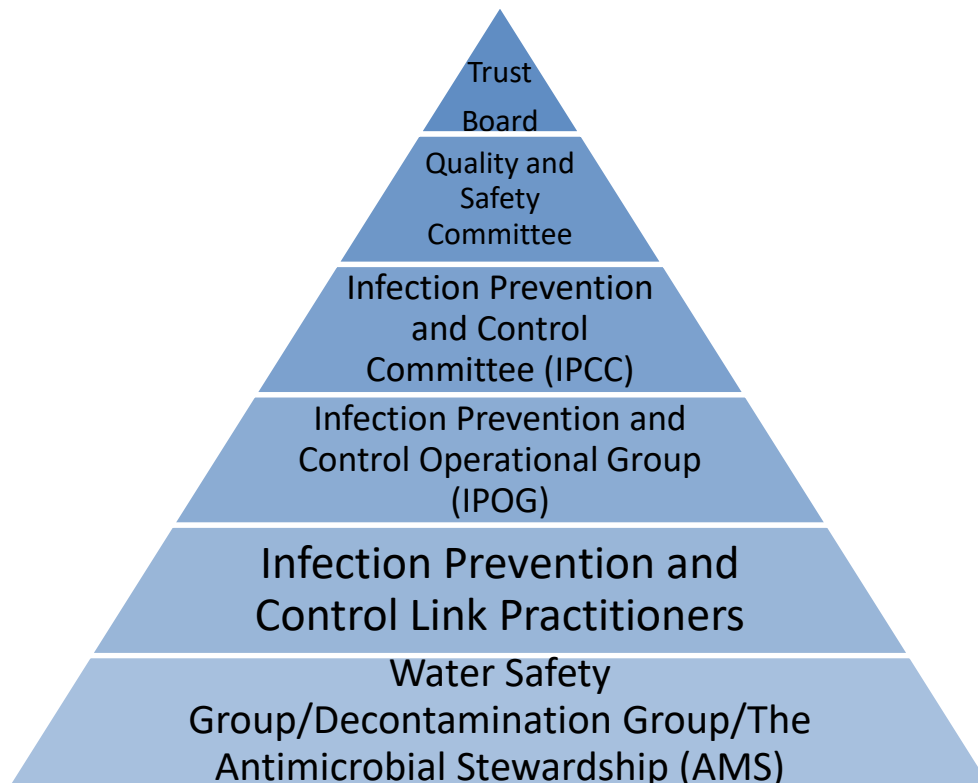
The IPC service is provided through a structured annual programme of works which includes expert advice, education, audit, policy development and review and service development. The Trust has 24 hour access to expert Consultant Microbiology advice and support via a Service Level Agreement (SLA) with the University Hospital Birmingham (UHB).

The DIPC has overall responsibility for the IPC Team that works collaboratively alongside the front-line clinical leaders at the Trust.

IPC Team Structure



1c) Committee Structures and Assurance Processes



1d) Trust Board

The Code of Practice requires that the Trust Board has a collective agreement recognising its responsibilities for IPC. The Chief Executive Officer (CEO) has overall responsibility for the prevention and control of infection at ROH.

1e) Quality and Safety Committee

The Quality and Safety Committee (QSC), chaired by a Non - Executive Director (NED), is a sub-committee of the Trust Board which meets monthly is responsible for ensuring that there are processes for ensuring patient safety and continuous monitoring and improvement in relation to IPC. The QSC receives assurance from the IPCC that adequate and effective policies, processes and systems are in place. This assurance is provided through a regular process of reporting. The IPC Team provide a monthly report on surveillance and outbreaks within the Quality Account.

1f) Infection Prevention and Control Committee

IPCC, chaired by the DIPC, provides direct assurance to the DIPC. The main objective of the IPCC is to provide a strategic drive in ensuring improved performance in relation to HCAs. The Committee has a designated Non-Executive Director.

1g) Surveillance of Healthcare Associated Infection (HCAI)

Surveillance is undertaken on a number of alert organisms and mandatory reporting to PHE is undertaken. Performance is monitored by Birmingham and Solihull Clinical Commissioning Group (CCG). Overall performance at ROH is excellent.

1h) Methicillin resistant *staphylococcus aureus* blood stream infections

S. aureus is an organism harmlessly carried by around 30% of the healthy population. Its importance is that it is a leading cause of surgical site infection (post-operative wound infection).

Infection associated with indwelling medical devices, particularly intravascular devices, is a major cause of morbidity and occasionally, mortality. The risk of prosthetic joint infection and other orthopaedic implants is a particular concern in the patient population that ROH treats.

MRSA is a type of *S. aureus* that is resistant to the most commonly used group of antibiotics for perioperative prophylaxis i.e. prevention of post-operative wound infection. It is less commonly carried than the more sensitive strains.

ROH continues to mitigate the risk of MRSA infection by active pre-admission screening and isolation of colonised patients, in keeping with national guidance. Screening results also enables effective use of appropriate prophylactic antibiotics in colonised patients.

The ROH also comply with national guidance to reduce the risk of blood stream infection. Low rates of blood stream infection therefore offer assurance of:

- Effective screening strategies
- Management and care of devices
- Antibiotic prophylaxis
- Compliance with national guidance

For the period covered by this report 2020 - 2021 there have been zero cases of MRSA bacteraemia at ROH which is the same compared to the previous 8 years;

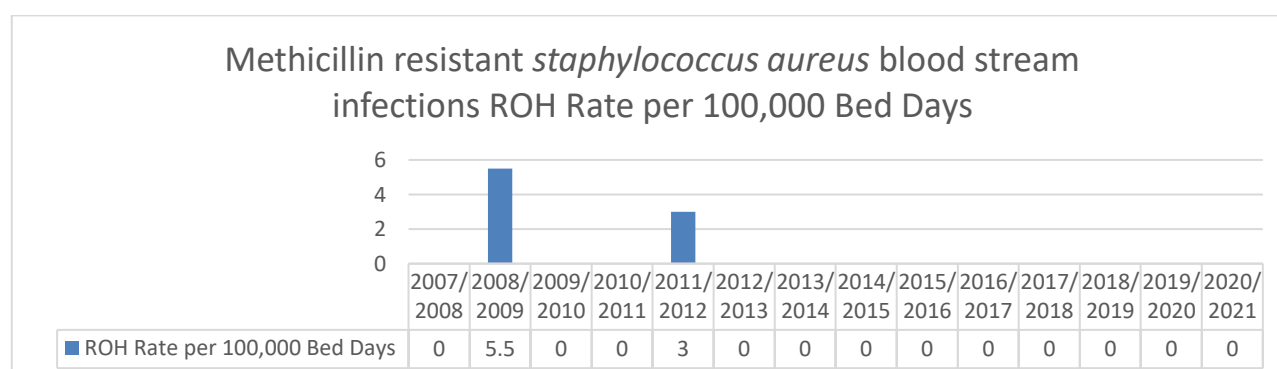


Figure 4a: Quarterly rates of all reported MRSA bacteraemia: April to June 2007 to October to December 2020

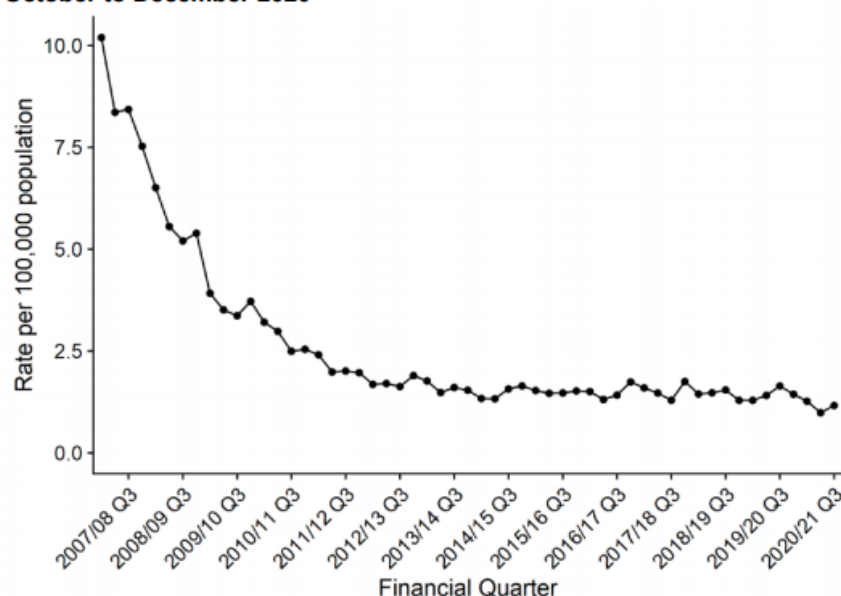
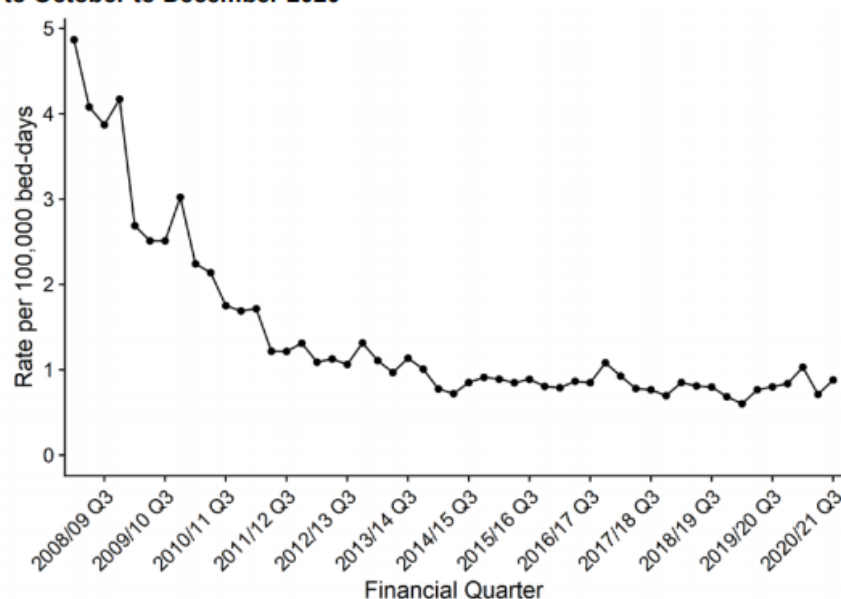


Figure 4b: Quarterly rates of hospital-onset MRSA bacteraemia: April to June 2008 to October to December 2020



Epidemiological analyses of *Staphylococcus aureus* bacteraemia data

There has been a considerable decrease in the incidence rate of all reported MRSA bacteraemia since the enhanced mandatory surveillance of MRSA bacteraemia began in April 2007 (Figures 4a, Table S4a). The incidence rate of all reported cases fell by 85% from 10.2 cases per 100,000 population in April to June 2007 to 1.5 cases per 100,000 in January to March 2014. The rate has subsequently decreased to 1.2 cases per 100,000 population between January to March 2014 and October to December 2020.

A similar trend was observed with the incidence rate of hospital-onset cases. There was a steep decrease of 79.0% from 4.9 cases per 100,000 bed-days in April to June 2008 to 0.9 January to March 2014.

Subsequently, between January to March 2014 and October to December 2020, the rate has decreased to 0.9 cases per 100,000 bed-days.

The effect of the COVID-19 pandemic on MRSA incidence is evident when comparing the most recent quarter (October to December 2020) to the same period in the previous year (October to December 2019) which shows a 29.2% decrease in counts and rates of all reported cases from 233 to 165, and 1.6 to 1.2 cases per 100,000 population, respectively. Community-onset MRSA bacteraemia cases and rates decreased 38.9% from 162 to 99 and from 1.1 to 0.7 cases per 100,000 population. The count of hospital-onset MRSA bacteraemia cases decreased 7.0% from 71 to 66 with a corresponding increase in the incidence rate of 8.8% from 0.8 to 0.9 per 100,000 bed days.

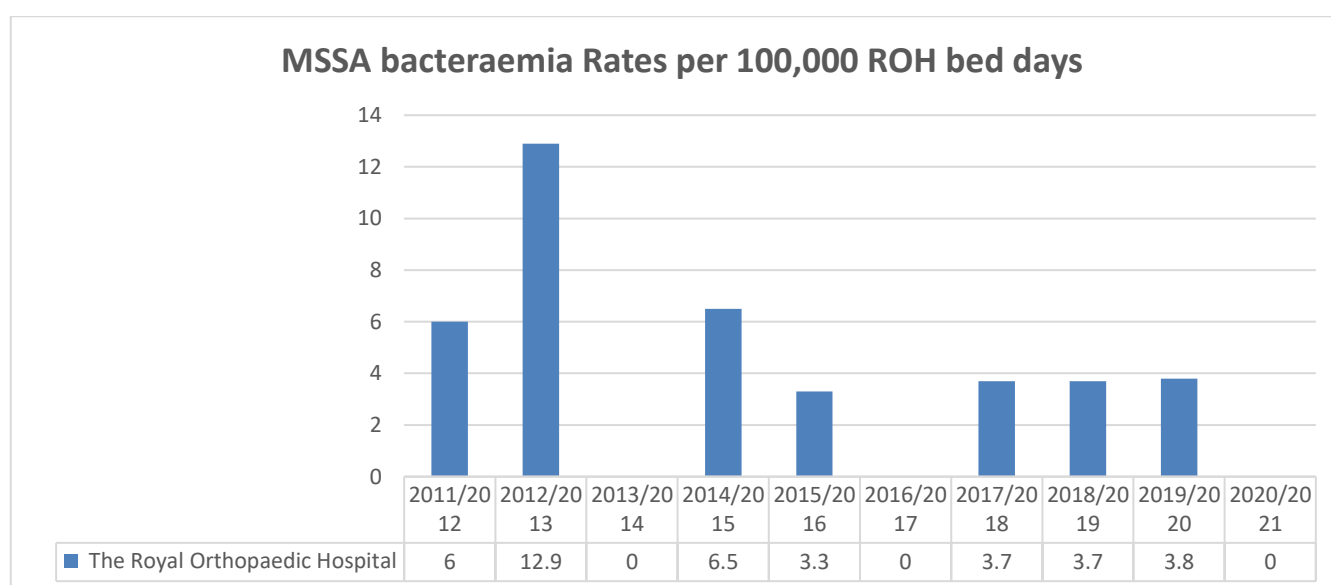
1i) Methicillin-sensitive *staphylococcus aureus* blood stream infections

Methicillin-sensitive *Staphylococcus aureus* is a type of bacterium which lives harmlessly on the skin and in the noses, in about one third of people. People who have MSSA on their bodies or in their noses are said to be colonised.

MSSA colonisation usually causes no problems, but can cause an infection when it gets the opportunity to enter the body. This is more likely to happen in people who are already unwell. MSSA can cause local infections such as abscesses or boils and it can infect any wound that has caused a break in the skin e.g. grazes, surgical wounds.

MSSA can cause serious infections called septicaemia (blood poisoning) where it gets into the bloodstream.

For the period covered by this report 2020 - 2021 there have been zero cases of MSSA.



Since the mandatory reporting of MSSA bacteraemia began in January 2011 there has been a general trend of increasing counts and incidence rates of cases. The count of all reported cases of MSSA bacteraemia increased by 34.0% from 2,199 to 2,947 between January to March 2011 and October to December 2020. This was accompanied by a 23.7% increase in incidence rate from 16.8 to 20.8 per 100,000 population (Figure 5a, Table S5).

These increases are primarily driven by the increase in community-onset cases. Between January 2011 and October to December 2020, the count and the incidence rate of community-onset cases increased by 40.4% and 29.6% respectively from 1,464 to 2,055 cases and from 11.2 to 14.5 cases per 100,000 population. Over the same period, the count of hospital-onset cases increased by 21.4% from 735 to 892 cases, while the incidence rate increased 41.1% from 8.4 to 11.8 cases per 100,000 bed-days (Figure 5a and 5b, Table S5a). Since the beginning of the COVID-19 pandemic there has been a decrease in all reported cases and a contrasting increase in hospital-onset cases. The overall reduction is, in part a result of reduced hospital activity, although the increase in hospital-onset cases is still under investigation.

Comparing the most recent quarter (October to December 2020) to the same period in the previous year (October to December 2019) shows this disparity between the total counts and rates of MSSA and hospital-onset counts and rates of MSSA. There was a 5.9% decrease in the counts and rates of all reported cases from 3,132 to 2,947 cases and from 22.1 to 20.8 cases per 100,000 population. Hospital-onset MSSA bacteraemia cases however, increased 5.4% from 846 to 892 which corresponds to a sharp incidence rate increase of 23.5% from 9.5 to 11.8 per 100,000 bed-days. Community onset MSSA bacteraemia cases decreased 10.1% from 2,286 to 2,055, while the community-onset incidence rate decreased 10.1% from 16.1 to 14.5 per 100,000 population. This large rate increase in hospital-onset has been present since April to June 2021 and can broadly be explained due to similar counts of cases combined with the reduction of hospital activity as a result of COVID-19 pandemic

Figure 5a: Quarterly rates of all reported MSSA bacteraemia: January to April 2011 to October to December 2020

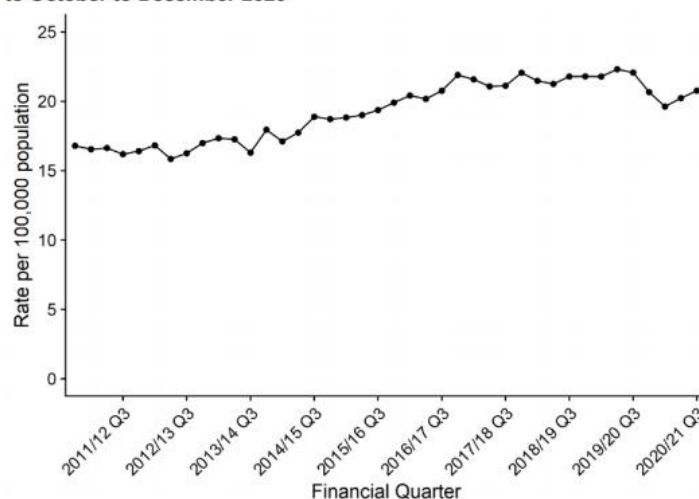
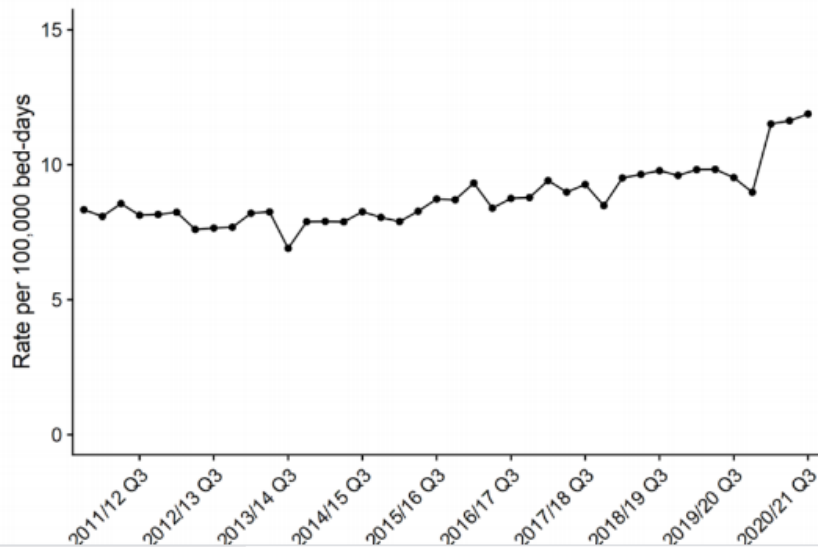


Figure 5b: Quarterly rates of hospital-onset MSSA bacteraemia: January to April 2011 to October to December 2020



1j) *Clostridioides difficile* Infection (CDI)

Up to and including 2020/21, NHS organisations have continued to be required to demonstrate year on year reductions in *Clostridioides difficile* Infection (CDI) cases. However, as published data shows, the rate of improvement for CDI has slowed over recent years. Infection prevention and control experts from within the NHS and from Public Health England advise that this is likely to be due to a combination of factors, including the biology and epidemiology of the *Clostridioides difficile* (*C. difficile*) organism.

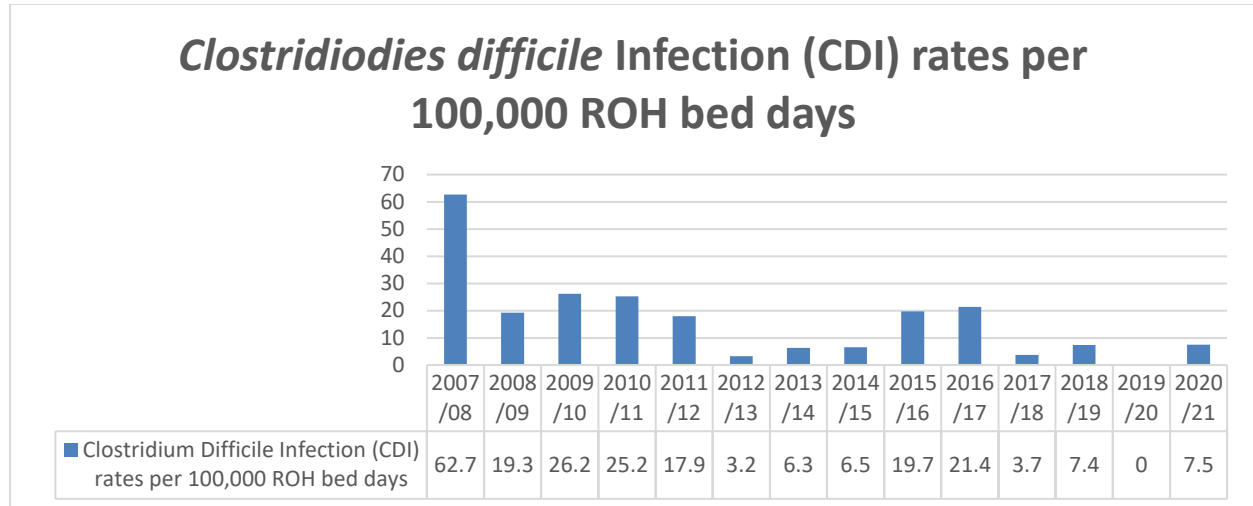
There are indications that, for some organisations at least, the level of CDIs may be approaching their irreducible minimum level at which these infections will occur regardless of the quality of care provided. This can occur due to the fact that some people carry *C. difficile* in their bowel and will develop symptoms due to their underlying clinical conditions or as a consequence of the antibiotics they have to take. Put simply, some infections are a consequence of factors outside the control of the NHS organisation that detected the infection.

Cases of CDI that are considered to have been acquired in the Trust are defined as a sample taken “on or after 48 hours of admission”.

Three cases were apportioned to the ROH in 2020/2021. In two of the cases it was noted there were lapses in the quality of care provided and responsive actions plans were put into place. After review it was noted there were lapses in quality around recognition and response to symptoms of CDI – (not sending stool sample on first episode, not completing D&V risk assessments). The Care of the patients once the CDI diagnosis was made was good and as per guidance.

The cohort of patients we were having at this time were elderly undergoing surgery and were already predisposed to CDI given their age, exposure to antimicrobials, exposure to

other healthcare settings (high rate of CDI at University Hospitals Birmingham whom we had a joint pathway with). Some patients had additional risk factors such as recent/current chemotherapy, use of proton pump inhibitors and laxatives.



Epidemiological analyses of *Clostridioides difficile* infection data (England)

Since the initiation of *C. difficile* infection (CDI) surveillance in April 2007, there has been an overall decrease in the count and associated incidence rate of both all-reported and hospital-onset cases of CDI (Figure 6a, 6b and Table S6). Most of the decrease in the incidence rate occurred between April to June 2007 and January to March 2012 with a 78% decrease in all-reported cases of CDI from 16,864 to 3,711 cases and an associated 79% reduction in incidence rate from 131.6 cases per 100,000 population to 27.9. Subsequently, between January to March 2012 and October to December 2020, the count of all-reported cases decreased 13.0% from 3,711 to 3,227 cases and the incidence rate reduced by 18.5% from 27.9 to 22.7 cases per 100,000 population. There were similar, but greater, reductions among hospital-onset CDI cases with an 85.0% reduction in count of cases between April to June 2007 and January to March 2012 from 10,436 to 1,613 cases and 84.0% reduction in the incidence rate from 112.5 to 18.2 per 100,000 bed-days. This was followed by a further 27.7% decrease in the count of cases from 1,613 to 1,167 cases and a decrease of 14.9% in the incidence rate from 18.1 cases per 100,000 bed-days to 15.4 between January to March 2012 and October to December 2020.

Comparing the most recent quarter (October to December 2020) to the same period in the previous year (October to December 2019) shows a 5.3% decrease in the count of all reported cases from 3,407 to 3,227, while the incidence rate decreased 5.3% from 24.0 cases per 100,000 population to 22.7. Hospital-onset CDI cases decreased 8.8% from 1,279 to 1,167 which corresponds to an incidence rate increase of 6.8% from 14.4 cases per 100,000 bed-days to 15.4. Community-onset CDI cases decreased 3.2% from 2,128 to 2,060, while the community-onset incidence rate decreased 3.2% from 15.0 to 14.5 per 100,000 population.

Figure 6a: Quarterly rates of all reported *C. difficile*: April to June 2007 to October to December 2020

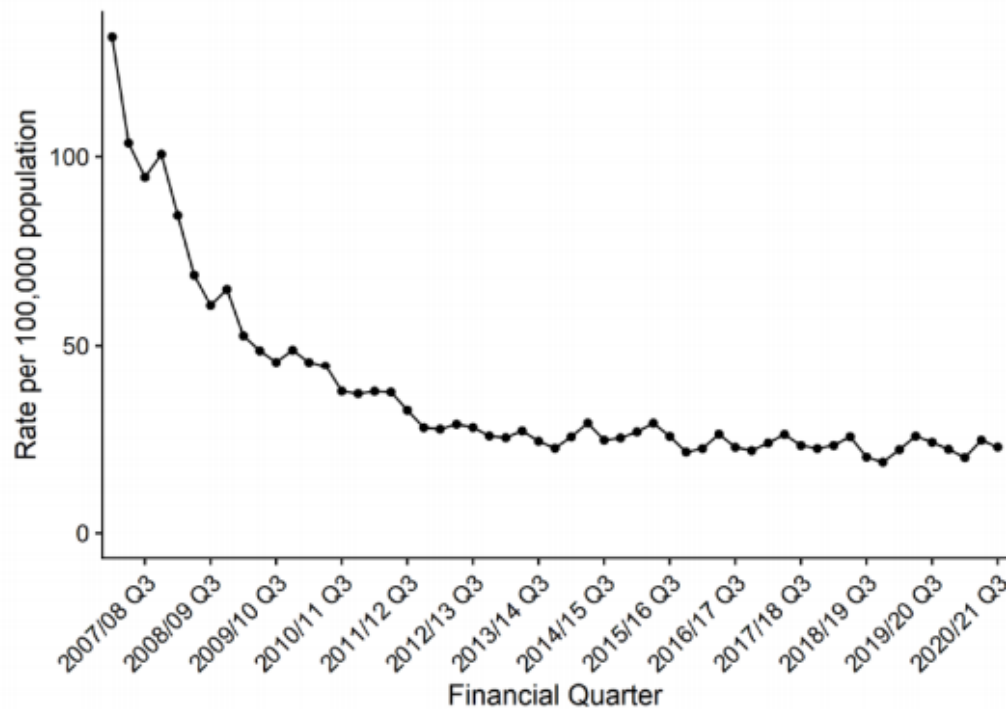
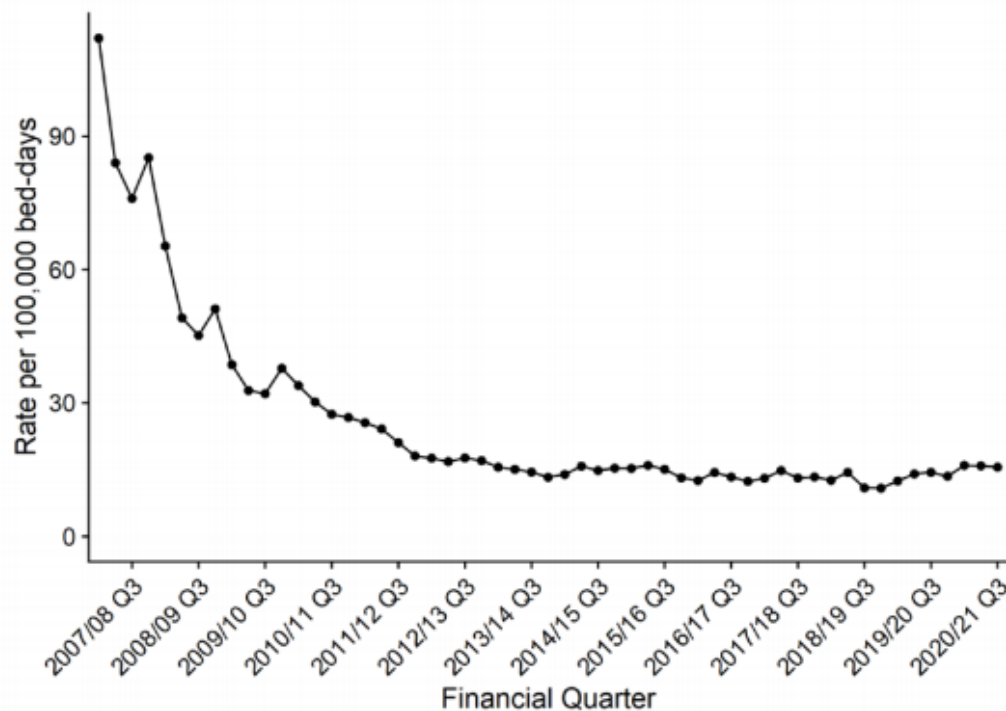


Figure 6b: Quarterly rates of hospital-onset *C. difficile*: April to June 2007 to October to December 2020



1k) Preventing and controlling the spread of CDI at the ROH

Preventing and controlling the spread of CDI is a vital part of the Trust's quality and safety agenda by a multifaceted approach and the proactive element of early recognition and isolation of CDI toxin positive cases and of those cases that are CDI carriers (PCR positive).

In all cases control measures are instigated immediately, and RCA's are reviewed. Each inpatient is reviewed by the IPC nurse regularly. In cases of Bone Infection Service (BIS) patients, they form part of the weekly multi-disciplinary review where the patients' case is discussed including antibiotics and where necessary feedback to ward doctors.

Pre Covid, all HCAI CDI cases are subject to a post infection review and each case is discussed with the Lead IPC Nurse at Birmingham and Solihull Clinical Commissioning Group (Bsol/CCG) to determine the avoidability (lapses in care) with feedback given to IPCC and relevant Divisions. This has not been taking place during the pandemic. The CCG has continued to attend all of the Trusts PIR meetings. The Divisions action Duty of Candour where necessary.

ROH closely monitors periods of increased incidents (PII) of patients with evidence of toxigenic *C. difficile* in any ward or area. The definition of a PII is 2 or more patients identified with evidence of toxigenic *C. difficile* within a period of 28 days and associated with stay in the same ward or area. Should this occur samples are obtained and submitted to Public Health England for ribotyping. Samples with the same ribotypes are then examined further variable number tandem repeat (VNTR). This helps to identify wards or areas where patient to patient transmission is likely to have occurred, with enhanced focus on control measures, with decanting and deep-cleaning of the patient areas if necessary.

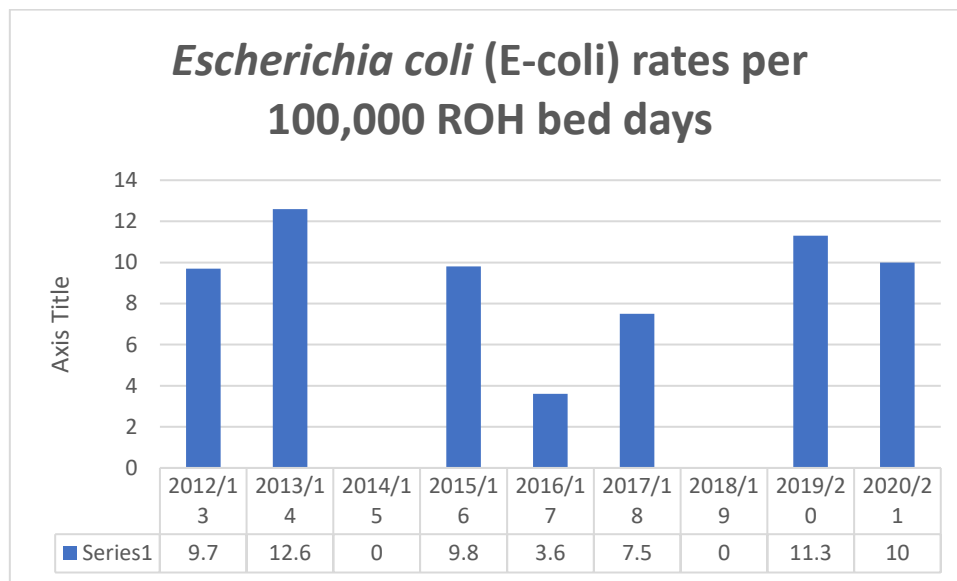
1l) Gram negative – bloodstream infections – *Escherichia coli* (*E. coli*)

Gram negatives (GN) are a group of organisms that form part of the normal gut flora. They are particularly associated with urinary tract infection (UTI) which may also lead to blood stream infection (BSI). This risk may be increased by inappropriate care and use of urinary catheters. The very nature of orthopaedic surgery entails uses of urinary catheters and therefore the stringent management of catheters is paramount to clean safe care. *E. Coli* is the most commonly seen representative in this group.

E. coli bacteria are frequently found in the intestines of humans and animals. There are many different types of *E. coli*, and while some live in the intestine quite harmlessly, others may cause a variety of diseases. The bacterium is excreted in faeces and can survive in the environment. *E. coli* bacteria can cause a range of infections including urinary tract infection, cystitis (infection of the bladder), and intestinal infection. *E. coli* BSI may be caused by primary infections spreading to the blood.

The Secretary of State for Health, (2017) launched an ambition to reduce healthcare associated GN bloodstream infections (BSIs) by 50% by 2021. Gram-negative BSIs are believed to have contributed to 5,500 NHS patient deaths in 2015. The initial focus to support this ambition is on *E. coli* BSI reduction. Enhanced surveillance of *E. coli* BSI has been mandatory for NHS acute trusts since June 2011 and is reported monthly to PHE.

Two cases were apportioned to the Trust in 2020/2021. It was noted that there were no lapses in care or quality highlighted after investigation.



Epidemiological analyses of Gram- negative bacteraemia data (England) *E. coli* bacteraemia

The incidence rate of all reported *E. coli* bacteraemia has increased each year since the initiation of the mandatory surveillance of *E. coli* bacteraemia in July 2011 to the start of the COVID-19 pandemic in April to June 2020 (Figure 1a). This was primarily driven by the increase in the rate of community-onset cases (Table S1a). Since the start of the pandemic, the total cases and rates and community-onset cases and rates have fallen but are still higher than the start of the period. In contrast, the incidence rate of hospital onset cases has remained relatively stable within the same period (Figure 1b).

Between July to September 2011 and October to December 2020, the count of cases and the incidence rate of all reported cases of *E. coli* bacteraemia increased by 12.1% from 8,275 cases to 9,275 and from 61.8 to 65.4 cases per 100,000 population. Similarly, over the same period, the count of community-onset cases increased by 19.1% from 6,279 to 7,479, while the incidence rate increased by 12.4% from 46.9 cases per 100,000 population to 52.7. Between July to September 2011 and October to December 2020, the count of hospital onset cases decreased by 10.0% from 1,996 to 1,796. In contrast, there has been an increase

in the incidence rate of hospital-onset cases of 0.5% between July to September 2011 and October to December 2020 from 23.6 per 100,000 bed-days to 23.7. This contrast between the change in counts and rates of hospital-onset infections can, in part be explained through the reduction of hospital activity as a result of the COVID-19 pandemic.

When comparing the most recent quarter (October to December 2020) to the same period in the previous year (October to December 2019) there is a 13.2% decrease in the count of all reported cases from 10,685 to 9,275, while the incidence rate also decreased by 13.2% from 75.3 per 100,000 population to 65.4. Community-onset *E. coli* bacteraemia cases decreased by 13.9% from 8,690 to 7,479, with the community-onset incidence rate decreasing by the same percentage (13.9% from 61.3 per 100,000 population to 52.7, Figures 1a and 1b, Table S1).

Furthermore, hospital-onset *E. coli* bacteraemia cases decreased by 10.0% from 1,995 to 1,796. However, incidence rate increased by 5.4% from 22.5 to 23.7 per 100,000 bed days. It is important that these figures be interpreted with caution. Since the start of the COVID-19 global pandemic, the total count and rate of *E. coli* bacteraemia cases declined due to reduced hospital activity but the rate of hospital-onset case has increased compared to the previous year. In previous years, there is a strong seasonality to the incidence of all-reported *E. coli* bacteraemia cases, with the highest rates observed between July to September of each year. Care is required in interpreting 2020 to 2021 as we have seen a reduction in cases and hospital activity.

Figure 1a: Quarterly rates of all reported *E. coli* bacteraemia: July to September 2011 to October to December 2020

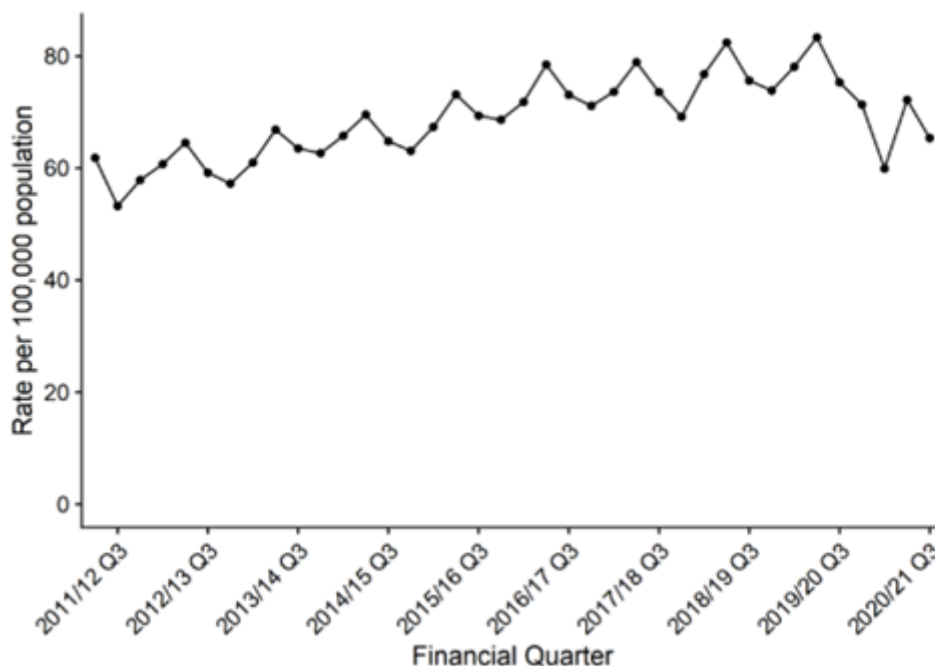
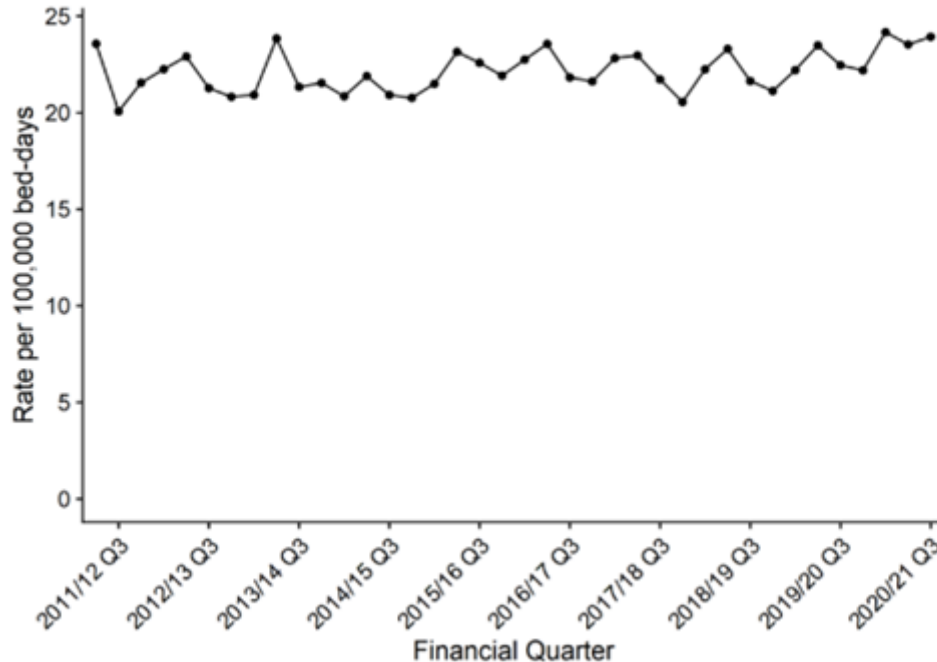


Figure 1b: Quarterly rates of hospital-onset *E. coli* bacteraemia: July to September 2011 to October to December 2020



1m) Vancomycin/Glycopeptide resistant *enterococci* (VRE/GRE)

Enterococci are part of the normal bowel flora and can cause urinary tract and blood stream infections.

VRE/GRE may be found in the healthy population thought to reflect inappropriate use of antibiotics in farming.

Although mandatory surveillance was discontinued in 2013, the Trust continue to monitor and report internally. For the period covered in this report there have been zero cases of GRE at ROH which is the same compared to the previous year.

1n) Carbapenemase producing *enterobacteriaceae* (CPE)

These are a sub-set of gram negatives (see above section) which are particularly resistant to antibiotics. They are seen commonly in the Indian subcontinent and in some Mediterranean countries which have historically had a poor record of antimicrobial stewardship and IPC.

There is an increasing concern nationally about their spread in healthcare. PHE published a toolkit in 2013 to control the spread in healthcare and onwards in the community. ROH adheres to the toolkit.

For the period covered in this report there have been zero cases of CPE at ROH which is the same compared to the previous year.

1o) Tuberculosis (TB)

Tuberculosis (TB) is an infection caused by a bacterium belonging to the Mycobacterium tuberculosis complex. TB is a notifiable disease in the UK. Suspected and confirmed diseases must be notified within three working days. It is a serious disease that can affect most organs but often presents as a lung infection. In the context of ROH practice it can also cause joint, bone and spinal infection. For the period covered in this report ROH had zero cases of TB infection.

1p) Norovirus outbreaks

Norovirus causes diarrhoea and vomiting and is highly infectious. The virus is easily transmitted through contact with infected individuals from one person to another or from their environment through contamination. In hospital this environmental risk is considerable and outbreaks are common. Management therefore relies on prompt recognition of symptoms, robust isolation and IPC precautions as well as fastidious environmental cleaning. For the period covered in this report ROH had no confirmed cases of Norovirus

1q) COVID-19

The novel respiratory coronavirus SARS-CoV-2 which causes Coronavirus Disease 2019 (COVID-19) emerged in Wuhan, China in December 2019. The first cases in the UK were confirmed in late January 2020. COVID-19 surveillance in the UK has been on-going since January 2020. The work of the IPC team was significantly impacted by the COVID-19 pandemic from mid-January 2020, initially with the management of potential cases of SARS-CoV-2 infection as a high consequence infectious disease (HCID), and then as significant numbers of cases were managed in the Trust from March 2020 onwards

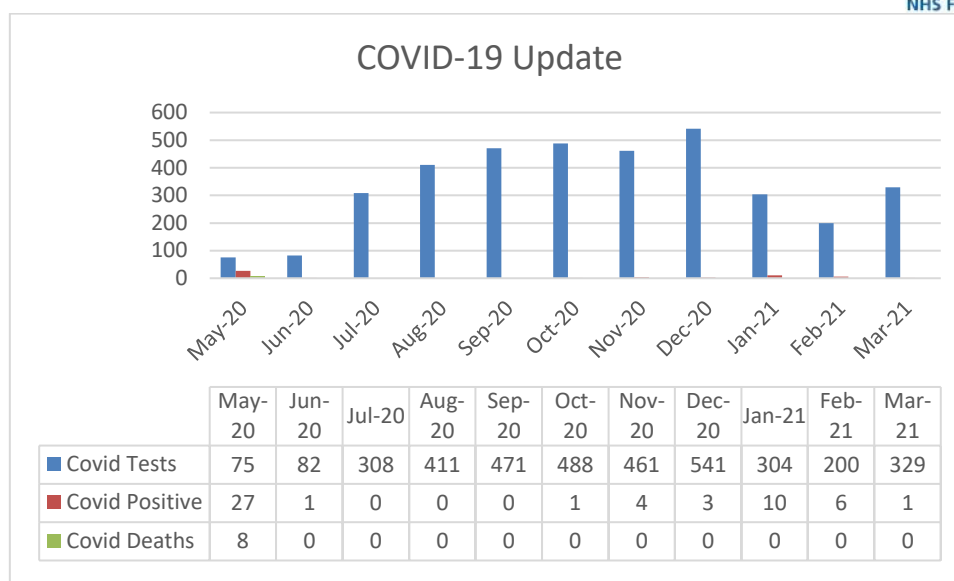
COVID-19 has been very different to anything the IPC team have had to manage before and was a massive challenge for the team. However, it was an extremely good example of cross-healthcare system working. The IPC team attended multiple meetings about COVID-19 via Microsoft Teams including daily operational meetings both internal to the trust and also with external partners.

The NHS England IPC board assurance Framework has been reported to both private and public board when released. NHS England developed this framework to help providers assess themselves against the guidance as a source of internal assurance that quality standards are being maintained. It will also help them identify any areas of risk and show the corrective actions taken in response. The tool therefore can also provide assurance to trust boards that organisational compliance has been systematically reviewed.

Other work for the IPC team and the Trust included:

- Frequent updates of the COVID-19 IPC policies were required as PHE issued new guidance regularly as more information about the virus became available. It was a steep learning curve and initial assumptions had to be corrected e.g. that only symptomatic patients were infectious;
- The IPC Team were heavily engaged in PPE training as increased mask, glove and gown wearing was introduced to protect staff. Staff also needed advice on social distancing from one another during breaks during which staff were at risk of infecting each other;
- The IPC team worked with the operational teams to introduce new Patient Pathways to separate infected, potentially exposed or unknown status patients from negative patients. These had to be changed again as elective activity was reintroduced. They also worked closely with the site management team in placing patients to reduce cross infection;
- The IPC team was also involved along with Estates staff in reviewing environmental issues;
- The Risk of COVID-19 was assessed in all staff areas with risks added to the risk register;
- All staff, patients and the public are screened for COVID-19 on entrance to hospital. Their temperature is taken and PPE issued;
- The Trust has adhered to National Guidance at all times;
- The Trust set up a vaccine centre in main outpatients to provide all staff and some of the surrounding community with both doses of the COVID-19 Vaccine.

The graph below details the number of COVID-19 testing, positives and deaths since May 2020. To be noted there were no staff deaths linked to COVID-19 in the Trust.



There were 8 outbreaks identified in the Trust since April 2020, 4 of which were in clinical areas and involved patients. Every outbreak was investigated fully with the involvement of NHSEI, PHE and CCG, culminating in twice weekly reviews. During the first wave and the start of the second wave, any outbreaks identified had to be reported to NHSEI at a regional level on a daily form sent via email. Towards the end of the second wave, NHSEI introduced an electronic reporting system to replace the manual system of reporting outbreaks.

When reviewing patients and attributing their infection, in May 2020 PHE provided four classifications:

- Day 0-2: Community-Onset (CO)
- Day 3-7: Hospital-Onset Indeterminate Healthcare-Associated (HOHA)
- Day 8-14: Hospital-Onset Probable Healthcare-Associated (HOPHA)
- Day 15+: Hospital-Onset Definite Healthcare-Associated (HODHA)

The outbreaks have been within the following areas:

Area/Dept.	Date Outbreak Declared	Date Outbreak Closed	Total No of +ve Staff	Total No of +ve Patients	Total number of Patients diagnosed at 3 - 7 days (Indeterminate)	Total No of Patients diagnosed at 8 - 14 days (probable)	Total No of Patients diagnosed at 15+ days (definite)
Pharmacy	03/09/2020	01/10/2020	3	N/A	N/A	N/A	N/A
Imaging	17/10/2020	14/11/2021	9	N/A	N/A	N/A	N/A
Oncology	19/10/2020	16/11/2021	9	N/A	N/A	N/A	N/A
Ward 1	15/11/2020	13/12/2021	1	2	1	0	1
Ward 2	09/12/2020	09/01/2021	1	4	3	0	1
Ward 3 (10/12)	11/01/2021	08/02/2021	9	7	3	3	1
Ward 3	05/02/2021	04/03/2021	0	2	2	0	0
Pharmacy	19/02/2021	20/03/2021	2	0	N/A	N/A	N/A

1r) Audit programme to ensure key policies are implemented

The ROH has a programme of audits in place undertaken in all the clinical areas and the IPC team to provide assurance around practice and consistent compliance with evidence-based practice and policies. Where a period of increased incidence occurs / risks are identified the IPC Team undertake additional audits in accordance with risk requirement. Action plans are devised by areas where issues are highlighted and these are managed and monitored within the divisions and escalated to IPCC and upwardly reported through the robust ROH Governance structure. Increased PPE audits were undertaken during the pandemic in clinical areas.

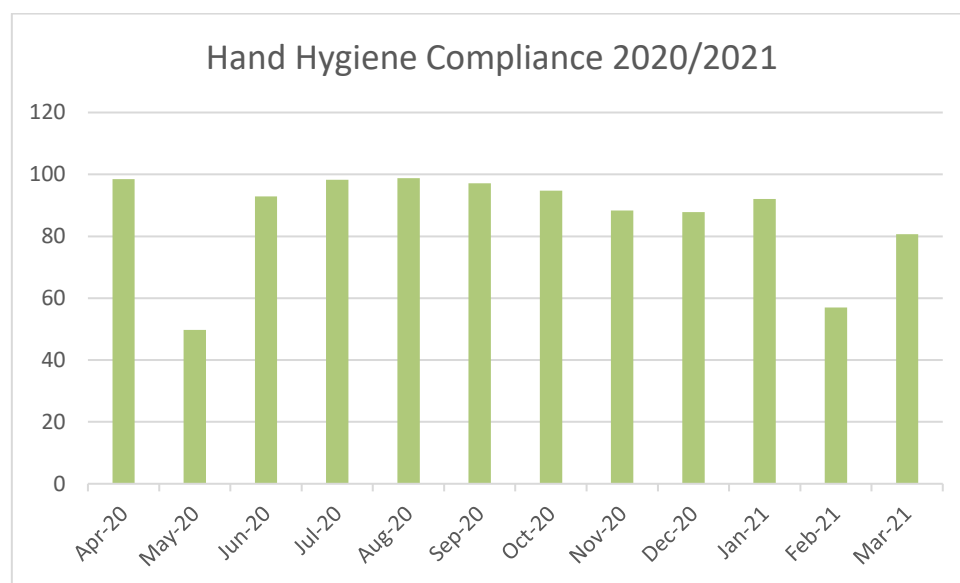
1s) Audits of hand hygiene practice

Hand hygiene continues to be included in the audit programme. The IPC Link Nurses perform 'Glow & Tell' training and assessments on hand hygiene within their areas utilising UV glow boxes specifically for hand hygiene training.

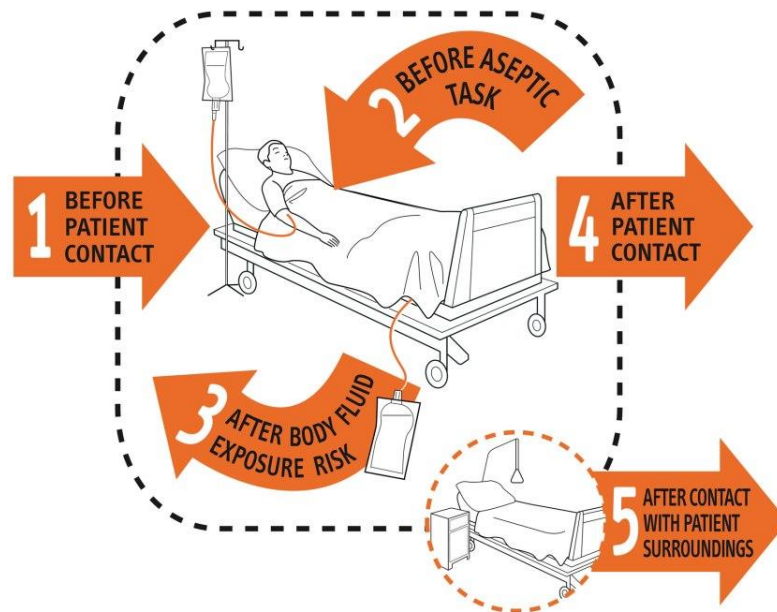
Hand hygiene is audited across all wards and departments, on a monthly basis, following the WHO 5Moments of Hand Hygiene.

The Trust continues to focus on four main components:

- Alcohol hand rubs at point of care prominently positioned by each patient so that hands can be cleaned before and after care within the patient's view;
- Audit of hand washing practice at least monthly.
- Patients are encouraged to challenge staff if they have any doubts about hand hygiene and in cases of repeated non-compliance, escalation of concerns.
- Raised awareness of hand hygiene and the 'Bare below the elbow' dress code



5 moments for HAND HYGIENE



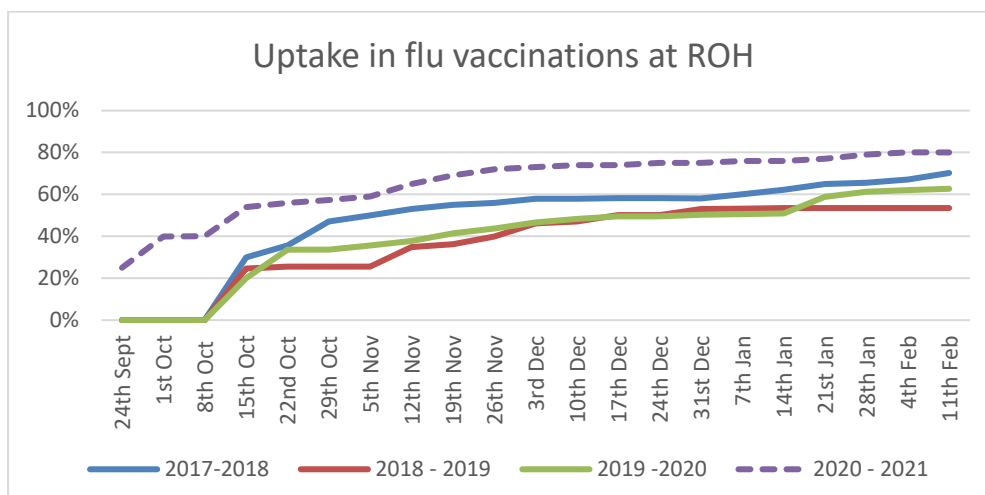
1t) Staff information and training

- The IPC team has ongoing PPE training, staff are able to book onto these sessions via ESR.
- The IPC Team has provided mandatory hand hygiene training for all ROH employees through induction days, mandatory study days, and ward-based enhanced training.
- The IPC Team facilitate bi-monthly meetings for infection prevention link practitioners (from each ward and department) During the pandemic these meetings were held virtually via Microsoft Teams.
- The IPC Team facilitate an annual study day for all interested employees from ROH.
- Grab Packs for hand hygiene, Influenza, MRSA, personal protective equipment and CPE have been developed and implemented across ROH to support staff with effective application from theory to practice within their areas of work.
- The IPC Team continues to work collaboratively with suppliers and Estates and Facilities teams to ensure that infection risk is considered and managed when commissioning works, new equipment or processes.

- ROH hand hygiene provider, DEB UK, have standardized products, posters, dispensers across the Trust and continue to provide training and audit at operational level for all clinical areas.
- The induction IPC training package was updated to reflect the requirements of new employees to ROH. IPC mandatory training is split into level 1 for clinical and non-clinical staff and level 2 for clinical staff only. These were provided via e-learning modules during the height of the pandemic where face to face sessions were not appropriate.
- Communication of key messages via a number of media methodologies including social network, newsletters and emails.
- The World Health Organisation (WHO) 'Five Moments of Hand Hygiene' is in use across ROH with the support from Communications. This campaign continues to be communicated both internally and externally with the support from social media.
- Additional on-going infection prevention surveillance and support continues across ROH with daily infection prevention visits to all inpatient areas.
- Bespoke infection prevention training has been developed, in line with HBN 00-09, for all preferred contractors coming into ROH.
- The IPC Team continue to work with clinical staff and support clinical site managers with safe bed utilisation.
- The IPC Team facilitated the national antibiotic awareness and hand hygiene days across ROH, this is in addition to promotional activities that they have supported throughout the year.
- The IPC team provided training in relation to COVID-19 and PPE use in conjunction with the ROH Clinical Education Team.

1u) Seasonal Staff Influenza Vaccination Campaign

The seasonal influenza staff vaccination campaign is well established at ROH. The campaign officially commenced on 1st October 2020 with a wealth of information available to staff on the Trust intranet, information boards across the site and locally based influenza champions. The uptake for 2020/2021 was 80.02%. The graph below shows the update for the last 4 years



1v) IPC Link Practitioners

ROH, within each clinical area, has in place dedicated IPC Link Practitioners these include registered nurses, healthcare assistants and allied health care professionals. These staff are supported by the IPC Team and attend bi-monthly meetings alongside education / study days to support them in their roles. They provide advice, support, education and training to operational staff as well as monitoring compliance with the IPC agenda.

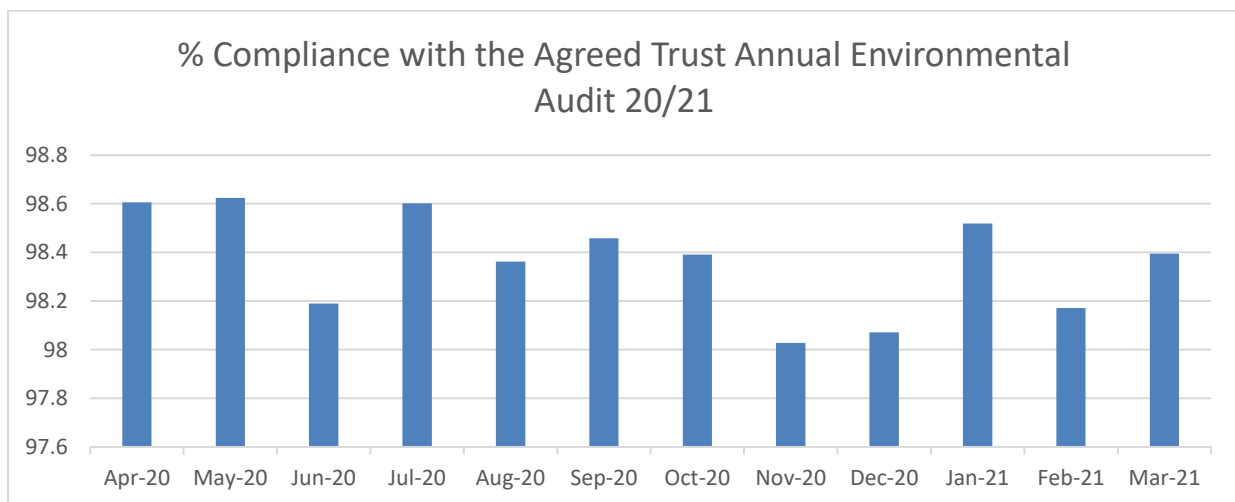
2. Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infection

2.1 Providing a clean safe environment

- There is a designated Facilities Manager for cleaning services that are managed in house.
- The IPC Team support ROH bed management / clinical staff to ensure efficient / appropriate bed utilisation
- IPC Team are involved in capital planning schemes to support the needs of IP across ROH in refurbishments and new builds.
- The IPC Team oversees assurance of standards and reduction of risk in partnership with Divisional Management teams through audit, monitoring of standards, and shared learning.
- ROH use Bioquell (hydrogen peroxide vapour), a specialised decontamination method, for the removal of environmental contaminants to ensure a safe, clean environment.
- Domestic staff continue to provide cover in all patient areas from 6am until 9pm. (Monday – Friday) and 8.30am – 7pm (weekends and bank holidays). The Trust also

undertake cleaning throughout the night – mainly in public areas and lower risk patient facing locations i.e. Hydrotherapy department

- Training for domestic staff continues to be provided by British Institute for Cleaning Standards and is refreshed annually.
- The Matron for IPC meets on a monthly basis with Head of Estates / Facilities to review cleanliness standards and any issues identified by monthly audits. Issues are discussed at IPOG and escalated, as required to IPCC.
- ROH contract out to an accredited facility for decontamination services.
- ROH theatres had a scheduled partial shutdown to enable essential maintenance and Deep cleans were undertaken
- ROH participate in the annual Patient Led Assessments of The Care Environment (PLACE).
- Below details the Trust Compliance with the agreed Trust Annual Environmental Audit 20/21. ROH has been exceeding the threshold of 95% set by the Commissioners in 2020/21.



2.2 Water Systems Management

- ROH Water Safety Group, which includes a dedicated Authorised Engineering Officer (AEO) for water, is responsible for the oversight of water safety and continue to meet on a quarterly basis.
- The Water Safety group is a sub group of the IPCC and reports directly to IPCC. The group is chaired by the Associate Director of Estates & Facilities.

- Estates and Facilities, Consultant Microbiologists, and the IPC Team support the water management process across ROH. The Trust has a Water Safety Action Plan that was developed based on the peer review and reflects the current status. This is monitored at the Water Safety Group.

2.3 Management of Decontamination

The management and compliance currently fall into three distinct areas;

- Estates – for medical device reprocessing equipment / scheduled maintenance where required,
- Infection Prevention – for monitoring / audit of compliance of medical devices with Trust Policies,
- User – to comply with Trust Policies and to ensure that decontamination of equipment is fit for use and subject to periodic testing and maintenance as advised by the manufacturer / contractual agreement.

No decontamination is undertaken on site – ROH contract out to BBraun, accredited decontamination service, for full management of surgical instrumentation.

3. Ensure appropriate antibiotic use to optimise patient outcomes and to reduce the risk of adverse events and antimicrobial resistance

The Antimicrobial Stewardship (AMS) Group formed in 2017/18 has produced an Antimicrobial Stewardship Strategy to outline the roles and responsibilities of all members of staff within the Trust at tackling Antimicrobial Resistance. The AMS strategy provides an overview of the planned AMS activities to be completed to encourage responsible use of antimicrobials.

Consumption of antibiotics is monitored by the Chief Pharmacist and analysed for trends by the Lead Antimicrobial Pharmacist. A number of audits have been completed to assess appropriateness of antimicrobial usage and also the review of antibiotics used within the Trust. This is reported to the Drugs and Therapeutics Committee (DTC) and IPCC and any areas of concern addressed with Microbiologists.

The antimicrobial guidelines were updated by the Lead Antimicrobial Pharmacist and Microbiologists at the University of Hospitals Birmingham Trust. These were uploaded to the Trust's intranet and launched within the Trust; a summary card was produced to improve staff awareness and compliance with the guidelines.

The Trust utilise the 'Start Smart, then Focus' approach for initiating and reviewing antimicrobial prescriptions which aims to avoid inappropriate antimicrobial prescribing. A Antimicrobial Prescribing sticker was launched to prompt review of IV antibiotics at 72 hours and improve documentation around antimicrobial usage.

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

- The Trust has a dedicated communication team. In cases of outbreaks where there may be interest from the media, the Communications Team are invited to meetings and their support and guidance on preparing Press statements is sought.
- The IPC Team work collaboratively with ROH Communications team who support dissemination of IPC communications both internally and externally as required.
- The IPC Team meet monthly to update each other on areas of work and plan ahead.
- All wards / departments have an IPC information board for patients / visitors which is updated monthly.
- IPC information stalls are used across site quarterly with time specific information for staff, patients and visitors to the Trust.
- All Infection Prevention Nurses undergo an annual appraisal.
- The IPC Team utilise social media that enables communication internally and externally with the public and other organisations. This has proved beneficial with sharing of best practice and communicating to a wider health economy.
- The ROH Weekly Message from the CEO supports and cascades messages from the IPC Team across the organization and gives prominence to Executive leadership and support of IPC activities, supporting “Board to Ward”.
- The IPC Team have dedicated space on the Trust Intranet and on the Trust Internet site.
- The Trust Intranet promotes infection prevention issues and guides users to information on MRSA, *Clostridioides difficile* and other organisms.

In the past 12 months the IPC and Communications Teams have worked together to:

- Develop information for patients and staff regarding visiting restrictions and requirements,
- Develop eye catching, easy to read, clear instructional PPE guidance which has changed as per PHE guidance throughout the pandemic.
- To share COVID-19 updates including policy change/SOP development,

- Shared IPC improvement news e.g. the introduction lessons learnt from outbreaks information and hand washing facilities improvements, social distancing and mask adherence communication,
- Update the Trust website and intranet,
- Issue social media statements during outbreaks,
- Support the annual flu vaccination campaign.

4.1 Trust Website and Information Leaflets

A dedicated COVID-19 information page was developed early on in the COVID-19 pandemic and continues to be regularly updated with trust wide communications, COVID-19 policy changes and advice for staff on working through the pandemic, including information for patients and visitors. This included topics such as volunteering, symptoms of COVID-19, how to keep healthy and avoid infection, how to get tested and visiting.

This continues to be updated by the Communications Team with advice from IPC as new information becomes available. The Trust website also promotes the IPC information page for general IPC issues and guidance including link practitioner information, information on MRSA, *Clostridioides difficile* and other organisms. This is also the media area to review a range of information leaflets on various organisms and access the regularly updated policies and guidance.

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

Surgical Site Infection (SSI)

Surgical Site Infections are a particularly important Healthcare-Associated Infection (HCAI) because they can increase a patient's length of stay in hospital and "are associated with considerable morbidity and it has been reported that over one-third of postoperative deaths are related, at least in part, to SSI.

However, it is important to recognise that SSIs can range from a relatively trivial wound discharge with no other complications to a life- threatening condition" National Institute for Health and Clinical excellence (NICE) (2008).

Guidelines for the prevention of SSI were issued by NICE in the UK, updated in 2013, and accompanied by a High Impact Intervention (HII) from the Department of Health. These guidelines are outlined in the following table.

Period	Action	Evidence	Introduced at ROHFT
Pre-operative	Showering	+ / -	x
	S.aureus decolonisation	+ / -	✓
Peri-operative	Antibiotic prophylaxis	+	✓
	Skin preparation	+	✓
	No shaving with razors	+	✓
	Theatre environment/procedures	+	✓
	Surgical technique	+	✓
	Normothermia	+	In part - ongoing
	Glucose control	+	✓
Post-operative	Wound management	+ / -	✓
	Surveillance and feedback of rates	+	✓

Many of these actions are in place, with the addition of others exceeding the National Guidance, at ROH. ROH have in place an established wound care helpline that can offer the patient an appointment at the SSI clinic, on the same day, should it be required. This allows the review of patients by specialist staff allowing rapid treatment / admission where required avoiding visits to the GP and unnecessary prescribing of antibiotics.

Mandatory surveillance of infections, in the following procedures, started in April 2004 specifying that each trust should conduct surveillance for at least 1 orthopaedic category for 1 period in the financial year. This surveillance helps hospitals, in England, to review or change practice as necessary.

- hip replacement
- knee replacement
- repair of neck of femur
- reduction of long bone fracture

Primary arthroplasty surgery is constantly reviewed and monitored as part of the SSI surveillance programme at ROH. SSI surveillance is routinely carried out according to Public Health England protocol at the point of discharge from hospital and at 30 days post primary hip and knee replacement surgery and has received close attention since 2009 when the 30-day surveillance was introduced.

The data presented below is a combination of Mandatory surveillance data for Surgical Site Infections identified following hip and knee replacement surgery carried out and wider analysis surgical site infections in other specialties where it is available. In addition to this there is also in-house surveillance scheme conducted by the IPC Team, which looks at a number of other areas of interest. This enables the team to gain an informed understanding

of SSI across all divisions and the potential for them to have longstanding implications for patients and significant financial implications for the Trust.

SSI Rate	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Hips	3.5%	3.8%	2.9%	2.0%	1.0%	1.5%	1.2%	2.4%	1.4%	2.3%	2.2%	1.8%
Knees	6.7%	5.8%	6.9%	4.4%	2.6%	2.9%	1.8%	2.3%	2.0%	3.2%	2.0%	1.0%
No. of SSI	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Hips	37	44	33	26	13	21	15	31	17	11	24	19
Knees	65	52	61	41	23	25	17	23	21	14	21	9
No. of procedures	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Hips	1063	1144	1153	1274	1240	1371	1261	1271	1189	487	1075	1062
Knees	974	896	880	932	887	875	956	992	1071	433	1028	899

During 2018 we did not participate in all four quarters, hence the lower number of procedures in comparison to other years.

We have only begun carrying out Surgical Site Infection Surveillance on Spines in July 2020. Therefore, unfortunately we do not have a large amount of data available at present.

A vast majority of our spinal patients included in surveillance do not have an implant inserted, and therefore as per Public Health England's Protocol, surveillance is stopped at 30 days post surgery. However, for those who do have an implant inserted, surveillance continues for 1 year, which coincides with the process for hip/knee patients.

SSI Rate	2020
Spines	2.8%
No of SSI	
Spines	8
No of procedures	
Spines	286

The number of SSI's also include patient reported infections. However, it is important to note that National Benchmarks do not consider patient reported infections, only those detected as an inpatient/at readmission.

We have recently created a patient wound information leaflet which we are distributing to those included in surveillance on the wards prior to discharge. This is to help inform them of the service, to make them aware of the signs and symptoms of infection and to call our wound care helpline should any issues arise. We anticipate that educating patients with this information will facilitate the prompt notification of any potential infections to us sooner rather than later. Follow up calls are also being carried out at 3 months following surgery to assess the patients wound healing and if any issues have risen so that these can be promptly addressed by the consultant.

MRSA:

The Health and Social Care Act 2008 Code of Practice on the Prevention and Control of Infections stipulates the requirement for an MRSA policy to be in place to help prevent and control infection.

The Government considers it unacceptable for a patient to acquire an MRSA bloodstream infection (MRSA BSI) while receiving care in a healthcare setting. It has set healthcare providers the challenge of demonstrating zero tolerance of MRSA BSI through a combination of good hygienic practice, appropriate use of antibiotics, improved techniques in the care and use of medical devices as well as adherence to best practice guidance. The zero- tolerance approach to MRSA has been re-iterated in Everyone Counts: Planning for Patients 2014/15 to 2018/19.

The purpose of pre-operatively screening for MRSA is to:

- Minimise the transmission of MRSA within ROH
- Protect patients from infection or colonisation with MRSA
- Ensure that patients who are colonised or infected with MRSA are managed appropriately, and receive adequate information about their condition

All admissions to ROH must be screened for MRSA, using the MRSA Screening tool, unless they are day case patients for:

- injections only
- biopsy
- manipulation under anaesthetic (MUA)

Pre-operative screening for MRSA is valid for 12 weeks from the date of the samples being taken.

All 'long stay' inpatients (>4 weeks) are screened for MRSA on a 4-weekly basis (to monitor acquisition). If the result is MRSA positive then the patient must be isolated and commenced on decolonisation treatment. All patients not known to be MRSA positive in HDU will be screened weekly.

All patients who test positive for MRSA and those who are considered to be 'high risk' i.e. multiple invasive devices, skin conditions causing open wounds etc. are prescribed decolonisation therapy with the goal of reducing the bacterial load or 'bio-burden' on the skin to a level that is no longer considered a risk – poses no risk of transmission.

COVID-19:

Prior to the vaccination programme, evidence on the mortality rates of patients contracting COVID-19 in the perioperative period raised very significant concern, and there was an absolute need to ensure that patients are not admitted for surgery with the virus (both asymptomatic in the incubation period or with symptoms), and were protected from the virus in the perioperative and post-operative period. The period of preoperative isolation was, and continues to be the mainstay of protecting patients, along with the vaccination programme.

The ideal length of isolation and quarantining is 14 days however, with the emergence of new mutations of the virus this might increase or decrease as evidence becomes available. Household isolation is recognised as the most effective form of quarantining although shielding within a household is found to be more convenient, but with higher risks of viral exposure.

The Trusts pre-operative COVID-19 process describes what should be followed for the pre-operative management of all patient groups due to undergo any elective surgery, including high risk surgery, during the COVID-19 Pandemic. The protocol has been developed in order to mitigate the recognised risk of exacerbated respiratory complications and associated mortality when undertaking major surgery on undetected COVID positive patients.

The protocol applies to all patients about to undergo any of the below surgical interventions

- Major oncology surgery >2hrs or patient receiving pre-op chemotherapy
- Spinal surgery with surgical time >2hrs
- Revision arthroplasty with surgical time >2hrs
- Any other surgical interventions at the ROH that requires the patient to attend or pass through ADCU or theatres
- This is inclusive of patients undergoing an injection in these departments (for further details on this patient group, please see the 'Pre-Procedure Management of Injection Patients during the COVID-19 Pandemic SOP')

Ref: Pre-Operative COVID-19 Screening SOP

COVID-19 Screening of Inpatients

All inpatients in the Trust are screened daily for symptoms, throughout their stay. If there are any concerns, a PCR test is completed at the time the concerns are raised to the clinical team and IPC team.

If patients remain asymptomatic for COVID-19, the following protocol is followed:

1) For Elective patients (1 PCR tests have been completed prior to admission)

- PCR Test completed weekly on all patients, for the duration of their stay
- PCR Test completed 48 hours prior to discharge for all patients being discharged to another health or care facility e.g. hospital, nursing home, care home.

2) For Emergency patients (No PCR tests have been completed prior to admission)

- First PCR Test completed on admission

- Second PCR Test completed at 48 hours
- PCR Test completed weekly on all patients, for the duration of their stay
- PCR Test completed 48 hours prior to discharge for all patients being discharged to another health or care facility e.g. hospital, nursing home, care home

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

At ROH infection prevention is everyone's responsibility and is included in all job descriptions.

All clinical staff receive training and education in optimum infection prevention practices during induction and mandatory training and Link practitioner teaching sessions. Additional bespoke training is provided to wards and departments as necessary and in response to shared learning.

All staff included volunteers receive mandatory IPC training.

8. Provide or secure adequate isolation facilities

Isolation Rooms

Wards

51 isolation rooms with en-suites.

3 isolation rooms without en-suite.

HDU

3 Adult Side Rooms without en-suites.

2 paediatric isolation rooms with en-suite.

The Number of isolation rooms has been a challenge during the COVID pandemic which resulted in operational challenges on a few occasions. It is to be noted that no patient harm or outbreaks occurred due to these pressures and challenges.

Secure adequate access to laboratory support as appropriate

Laboratory services for ROH are outsourced, located in the purpose-built Pathology Laboratory at University Hospitals Birmingham. The Microbiology Laboratory has full (UKAS) accreditation ISO Standard 15189. ROH has electronic access to results to facilitate patient care.

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

All IPC policies, procedures and manuals are available for staff to view on the Trust Intranet. There is a formal Governance structure in place for reviewing and ratifying such documents within the Trust and Governance has produced a directory of documents alerting when policies are due for update. Policies are also updated prior to review date if guidance is updated. All policies are agreed at the Trust IPC Committee and Executive team (if the changes are major or new policy).

10. Providers have a system in place to manage the occupational health needs of staff in relation to infection

All job descriptions include infection prevention responsibility and this message is reiterated during mandatory training. The IPC Team participates in mandatory updates for all staff groups (clinical and non-clinical). A representative from the Occupational Health Service is a member of the IPCC.

Occupational Health services are provided to staff via an SLA with the University Hospitals Birmingham (UHB). Occupational Health staff travel from UHB to ROH to provide one session (1 day) per week to support the Occupational Health requirements.

A report from the Occupational health service is provided to the IPC Committee 3 times a year.

Summary

Giving the COVID-19 Pandemic declared in March 2020, 2020-21 was one of the most challenging years for ROH and the NHS with Infection prevention and control playing the vital role of maintaining services at the ROH and ensuring our patients and staff are safe.

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