

| | |
|------------------------------|---|
| Title: | INFECTION PREVENTION & CONTROL ANNUAL REPORT SUMMARY APRIL 2017 – MARCH 2018 |
| Responsible Director: | Lisa Stalley-Green, Executive Chief Nurse and Director for Infection Prevention and Control |
| Contact: | <p>Ms Gill Abbott, Lead Nurse Infection Prevention and Control HGS;</p> <p>Dr Mark Garvey, Clinical Scientist and Associate Director of Infection Prevention and Control QEHB;</p> <p>Dr Katie Hardy, Principal Clinical Scientist HGS;</p> <p>Dr Elisabeth Holden, Consultant Microbiologist and Lead Infection Control Doctor QEHB</p> <p>Ms Kerry Holden, Lead Nurse Infection Prevention and Control QEHB;</p> <p>Dr Abid Hussain, Associate Director of Infection Prevention and Control HGS</p> |

| | | |
|--|--|-----------------------|
| Purpose: | To provide the Board of Directors with an annual report summary on infection prevention and control from April 2017 – March 2018 | |
| Confidentiality Level & Reason: | None | |
| Annual Plan Ref: | Strategic Aim 4 : Quality of Services | |
| Key Issues Summary: | The annual report summary provides details of the infection prevention and control activity from April 2017 – March 2018 | |
| Recommendations: | The Board of Directors is asked to accept the annual reports from both sites | |
| Approved by: | Lisa Stalley-Green | Date: 18 October 2017 |

Summary

Infection prevention and control is a top priority for University Hospitals Birmingham NHS Foundation Trust (UHB). Keeping our patients safe from avoidable harm is everyone's responsibility. The Trust has a wide ranging programme of activity that focuses on continual improvement in order to meet with our vision of building healthier lives. UHB's key values of collaboration, honesty, accountability, innovation and respectfulness are typified in last year's infection prevention and control agenda across all sites, with a particular focus on collaboration and innovation. Here, we summarise the activities of the Infection Prevention and Control Team at UHB during 2017/18.

2017/18 has been a challenging year, with national objectives for Meticillin Resistant *Staphylococcus aureus* (MRSA) and *Clostridium difficile* infection aimed at delivering a zero tolerance approach to avoidable infections. Progress has been made throughout when compared to recent years, however both healthcare associated infections remained above the nationally set target for each site.

The Infection Prevention and Control Team work in line with national guidance on the prevention of infections in the healthcare setting. The Infection Prevention and Control service is provided through a structured annual programme of teaching, audit, policy development and review, advice on service development and 24 hour access to expert advice and support. The team work closely with external agencies; a strong working relationship is maintained with the local Clinical Commissioning Groups, Public Health England and NHS Improvement.

What were the challenges identified in 2017/18?

Alongside the continuing challenges of reducing MRSA and *C. difficile*, new National targets were introduced in 2017/18 for the reduction of *Escherichia coli* bacteraemias, with an ambition of a health economy wide reduction of 50% by 2021. There has been year on year increases in *E. coli* bacteraemias, with 205 hospital onset cases reported in 2017/18; urogenital tract was the most commonly reported source of infection. Challenges remain on identifying interventions which can be made to reduce these infections; a key focus will be on catheter associated urinary tract infections and antimicrobial stewardship.

UHB has seen an exponential increase in the number of patients who are colonised with carbapenemase producing enterobacteriaceae; bacteria which are resistant to a broad range of antibiotics and for which there are few treatment options. The majority of cases were patients colonised on admission whom have had healthcare

abroad. Challenges pertaining to screening patients, isolating patients and preventing transmission remain.

An outbreak of measles occurred in the community during 2017/18 with large numbers of patients presenting to the emergency department, resulting in transmission to healthcare workers and patients. There were difficulties in contact tracing and identification of staff vaccination records. During winter, UHB were challenged with outbreaks of norovirus and the largest increase in influenza cases seen for the past 5 years. Both of which resulted in ward closures, impacting on bed capacity and patient flow.

What have been the successes/outcomes?

Trust wide, there has been a decrease in the number of patients acquiring MRSA whilst they are in hospital, due to the measures put into place which include screening and decolonisation of patients. This in turn has resulted in a reduction in Trust apportioned MRSA bacteraemias.

Antibiotics are the essential tools required to treat bacterial infections, but the global increase in antibiotic resistance threatens their clinical utility. Across the Trust, a reduction in the usage of broad spectrum antibiotics such as piperacillin-tazobactam and carbapenems was observed in 2017/18. Work around antimicrobial stewardship has been recognised and has resulted in nominations for awards nationally.

The team have been active in promoting work undertaken at UHB and sharing best practice, presenting at local, national and international meetings.

Innovative work has been undertaken across UHB in relation to the management of water safety, where a 50% reduction of *Pseudomonas aeruginosa* infections on critical care was seen; this work has been recognised both nationally, locally and within the Trust resulting in the water safety group receiving a best in care award.

The Infection prevention and control team have implemented various innovative patient focused practices, including MRSA acquisition and *C. difficile* ward rounds as well as setting up a multimodal HAP prevention programme. This practice was recognised nationally, where the team at UHB won the Infection Prevention Society team of the year award.

What's required for 2018/19?

Each year, the Infection Prevention and Control Team undertake a review of the Trust's compliance with the Health and Social Care Act 2008 code of practice on the prevention and control of infections (2015). The teams aim is to provide an infection

prevention and control service that supports our clinical teams with a key focus on building healthier lives. This year's annual plan covers 5 strategic themes:

- Produce and implement a multimodal hand hygiene improvement strategy across the Trust; thereby reducing the transmission of nosocomial pathogens amongst our patients.
- Healthcare associated infection reduction plan with a key focus on reducing Gram negative bacteraemias:
 - Implement a Gram negative bacteraemia reduction plan focusing on: hospital acquired pneumonia, water acquired *P. aeruginosa* infections, *E. coli* and *Klebsiella pneumoniae* bacteraemias and timely identification of patients colonised with CPEs. This work will be related to the quality premium guidance to reduce Gram negative bacteraemias across the whole health economy.
- Antibiotic stewardship to be improved through the national CQUIN on reducing the impact of serious infections ensuring timely review of antimicrobial treatment through 'start smart' then 'focus'.
- Despite being largely preventable surgical site infections are estimated to make up 20% of all healthcare associated infections. During 2017/18 work has commenced to introduce a Trust wide surgical bundle with the aim of reducing SSI, further work is required to ensure full adoption and a robust surveillance of SSI established.
- Key to all these strategic aims is engagement with staff, patients and visitors within the trust. We aim to improve engagement via:
 - Work across the health economy to strengthen reduction in Gram negatives.
 - Engaging the medical workforce in the infection prevention and control agenda.
 - Ensuring patients are involved in the infection prevention and control agenda
- In addition to the key strategic aims we will aim to:
 - Continue to fully participate within the Trust's Infection Prevention and Control Group.
 - Strive for the best in patient care and innovation in infection prevention and control practice.