Bradford Teaching Hospitals
NHS Foundation Trust

Meeting Title	Board of Directors		
Date	11.07.19	Agenda item	Bo.7.19.43

INFECTION PREVENTION AND CONTROL REPORT: FEBRUARY - APRIL 2019

Presented by	Karen Dawber, Chief Nurse/Director Infection Prevention & Control	
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Lead Director	Karen Dawber, Chief Nurse/Director Infection Prevention & Control	
Purpose of the paper	This report summarises progress against the infection prevention and control work plan for 2018/19 and sets out the Trust's infection control activities and performance between February and April 2019. This is the Q4 report for 2019/20 and provides the final chapter which comprises the annual report. To provide assurance on compliance with: • NHS Outcomes Framework– domain 5: Treating and caring for people in a safe environment and protecting them from avoidable harm. Health & Social Care Act 2008: Code of Practice for the NHS on the prevention and control of healthcare associated infections and related guidance (commonly known as The Hygiene Code).	
Key control	This paper is a key control for the Board Assurance Framework	
Action required	For approval	
Previously discussed at/ informed by	Infection Prevention and Control Committee	
Previously approved at:	**Committee/Group**	**Date**
	Quality Committee	26.06.19
	Infection Prevention and Control Committee	July 2019

Key Options, Issues and Risks

This is the quarterly infection prevention and control report which is required by the Board of Directors to demonstrate progress against the annual infection prevention programme and in achieving compliance with:

- The Health and Social Care Act (H&SCA) 2008: Code of Practice for the NHS on the prevention and control of healthcare associated infections and related guidance.
- Regulation 12(2)(h) and 21(b) of the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014.

This is the Quarter 4 report for 2019/20 and provides the final chapter which comprises the annual report.

Analysis

The report presents assurances for progress against the annual infection prevention programme. The report also highlights and provides an escalation summary of key risks in systems and processes which impact on the prevention of healthcare associated infections.

Recommendation

The report provides assurance to the Board of Directors by monitoring the activity of infection prevention and control annual work programme and is requested to confirm the actions arising from the recommendations identified are appropriate and approve the annual work programme for 2019/20.

The Committee is asked to note the changes to the objectives for Clostridium difficile for 2019/20, the required actions as part of the AMR 5 Year plan and the measures to contain the current outbreak on

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ward 8 with contributory risks highlighted.

The Committee is requested to consider the risks described in relation to specialist ventilation in healthcare premises, healthcare waste collection and the impact of the Reduction in Infectious Diseases/ Microbiology Speciality Consultant support and approve the mitigations described.

Risk assessment						
Strategic Objective	**Appetite (G)**					
	Avoid	**Minimal**	**Cautious**	**Open**	**Seek**	**Mature**
To provide outstanding care for patients			g			
To deliver our financial plan and key performance targets			g			
To be in the top 20% of NHS employers					g	
To be a continually learning organisation				g		
To collaborate effectively with local and regional partners					g	
The level of risk against each objective should be indicated. Where more than one option is available the level of risk of each option against each element should be indicated by numbering each option and showing numbers in the boxes.	**Low**		**Moderate**	**High**	**Significant**	
	Risk (*)					
Explanation of variance from Board of Directors Agreed General risk appetite (G)						

Benchmarking implications (see section 4 for details)	**Yes**	**No**	**N/A**
Is there Model Hospital data relevant to the content of this paper?	☐	☐	☐
Is there any other national benchmarking data relevant to the content of this paper?	☒	☐	☐
Is the Trust an outlier (positive or negative) for any benchmarking data relevant to the content of this paper?	☐	☒	☐

Risk Implications (see section 5 for details)	**Yes**	**No**
Corporate Risk register and/or Board Assurance Framework Amendments	☒	☐
Quality implications	☒	☐
Resource implications	☒	☐
Legal/regulatory implications	☐	☒
Diversity and Inclusion implications	☐	☒
Performance Implications	☒	☐

Regulation, Legislation and Compliance relevance
NHS Improvement: (please tick those that are relevant)
☐Risk Assessment Framework ☒Quality Governance Framework

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☐Code of Governance	☒Annual Reporting Manual
Care Quality Commission Domain: Safe	
Care Quality Commission Fundamental Standard: Safety (Regulation12(2)(h) and 21(b) of the Health and Social Care Act 2008(Regulated Activities) Regulations 2014	
NHS Improvement Effective Use of Resources: Clinical Services	
Other (please state): NICE [QS61] Infection prevention and control	

Relevance to other Board of Director's Committee: (please select all that apply)					
Workforce	Quality	Finance & Performance	Partnerships	Major Projects	Other (please state)
☒	☒	☒	☐	☐	☐

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INFECTION PREVENTION AND CONTROL REPORT: FEBRUARY - APRIL 2019

1 PURPOSE/ AIM

1.1 The purpose of this report is to demonstrate progress against the annual infection prevention programme and in achieving compliance with national standards and performance indicators. The report provides assurance by monitoring the activity of infection prevention and control and identified key issues are noted. The Committee is asked to note the report in relation to:

- Corporate objectives: strategic objective 1 - To provide outstanding care for our patients.
- NHS Outcomes Framework – domain 5: Treating and caring for people in a safe environment and protecting them from avoidable harm.
- Health & Social Care Act 2008: Code of Practice for the NHS on the prevention and control of healthcare associated infections and related guidance.
- NICE [QS61] Infection prevention and control.

2 BACKGROUND/CONTEXT

2.1 Section 21 of the Health and Social Care Act (H&SCA) 2008 contains statutory guidance about compliance with the registration requirement relating to infection prevention (regulation 12(2)(h) and 21(b) (Regulated Activities) Regulations 2014. It should also be noted that Regulation 15 is also relevant.

2.2 CQCs guidance about compliance with the above regulations includes a reference to the 'premises and equipment' regulation (regulation 15) as CQC considers this code to be relevant for the purposes of meeting that regulation.

2.3 The 'Code of Practice' on the prevention of infections under The Health and Social Care Act 2008 sets out the 10 criteria. Criterion 1 requires that systems to manage and monitor the prevention and control of infection and require the Director of Infection Prevention and Control (DIPC) to provide oversight and assurance on infection prevention (including cleanliness) directly to the Trust Board and produce an annual report. This report therefore provides assurance to meet the requirements set out above.

3 PROPOSAL

3.1 This report will confirm continued assurance systems for compliance against the statutory requirements which will support assurance with corporate strategic objective 1 - To provide outstanding care for our patients.

3.2 The report is the Quarter 4 report for 2018/19 and is the final report which together with the 3 previous reports provides the annual report.

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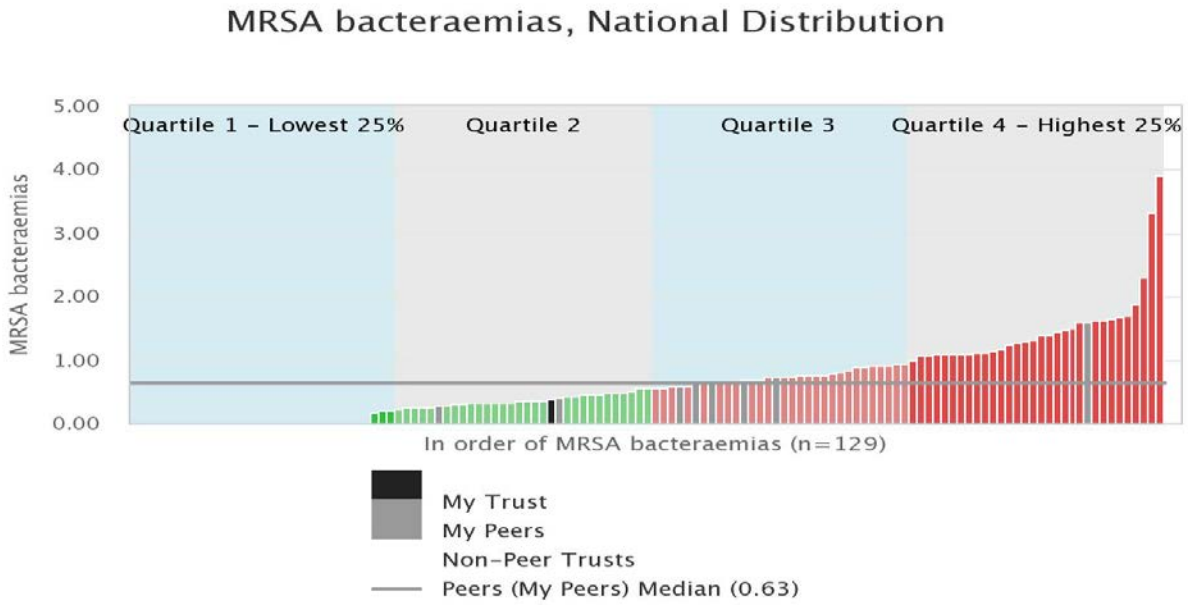
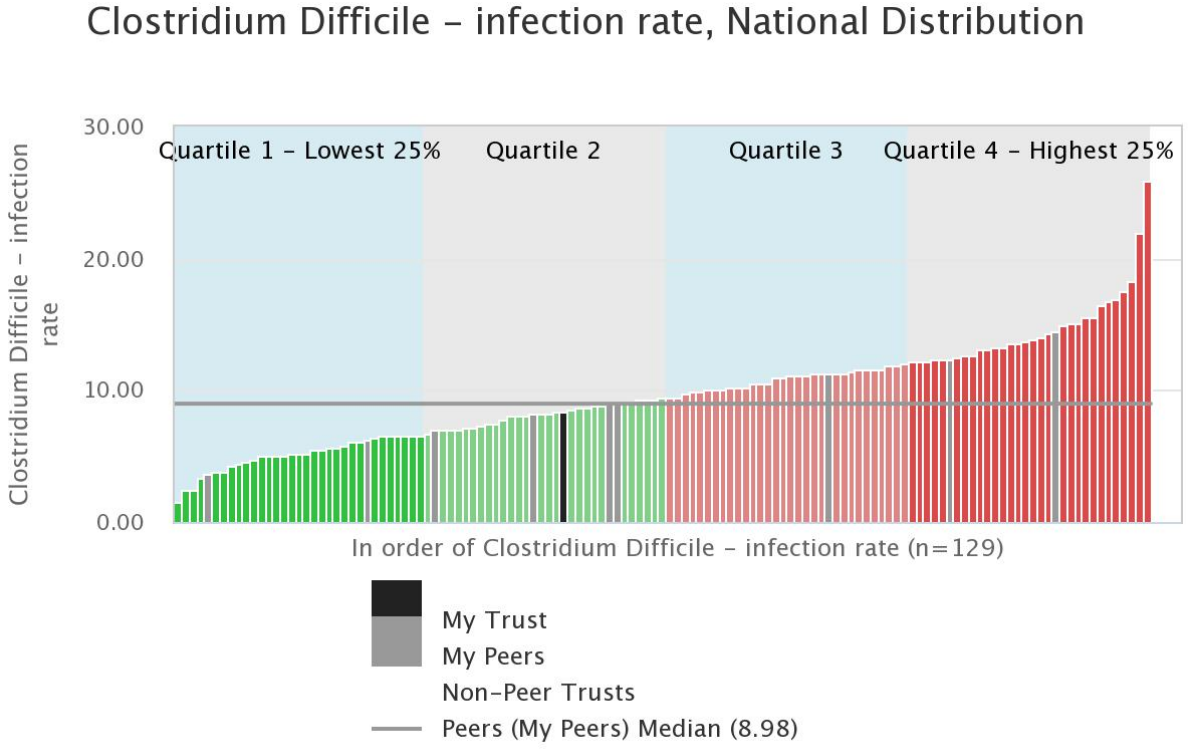
4 BENCHMARKING IMPLICATIONS

The latest information available on the Model hospital portal in relation to infection rates is included in the section below. It shows the Trusts position in relation to MRSA bacteraemia, Clostridium difficile and E. coli, in relation to the national distribution for each of these infections as at March 2019.





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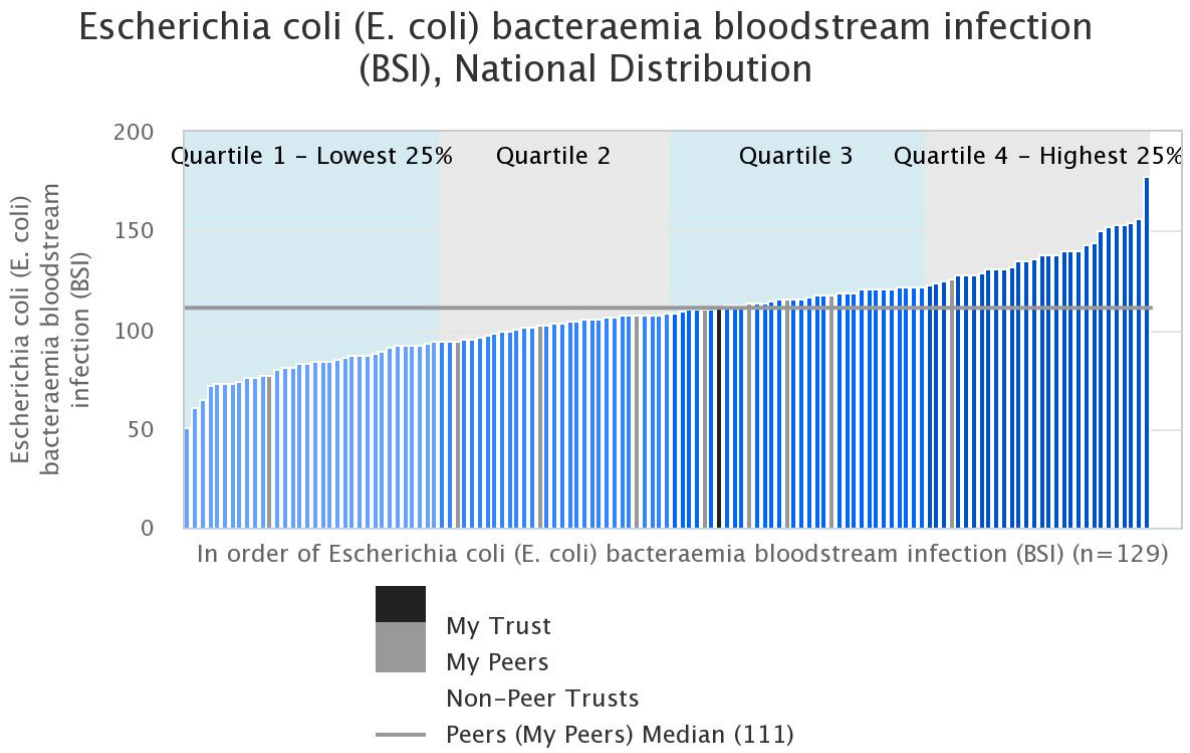

5 RISK ASSESSMENT

5.1 The paper provides assurance for compliance with:

- Corporate objectives: strategic objective 1 - To provide outstanding care for our patients.
- NHS Outcomes Framework – domain 5: Treating and caring for people in a safe environment and protecting them from avoidable harm.
- Health & Social Care Act 2008: Code of Practice for the prevention and control of healthcare associated infections and related guidance.
- NICE [QS61] Infection prevention and control.

5.2 Gaps in compliance during February – April 2019 that have been identified are highlighted below and within the main report (Appendix 1).

5.3 There is an active risk on the SRR relating to maternity theatres and a wider piece of work with the Chief Operating Officer to evaluate the site ventilation; this will include capital recommendations and a schedule of works. It is anticipated that the proposals will be worked up over the next 4 months.

5.4 There is an active risk on the SRR relating to the current waste contingency measures which continues to be monitored and escalated as waste collection fluctuates.

5.5 The Trust has investigated and reported to PHE and the CCG an outbreak of CPE. A summary of the investigation is included in appendix 1.

5.6 The Trust is reviewing the model of service delivery following the loss of the Infectious Diseases Consultant Team and the impact to other clinical services including the Infection Control Team.

6 RECOMMENDATIONS

6.1 The report provides assurance to the Board of Directors by monitoring the activity of infection prevention and control annual work programme and is requested to confirm the actions arising from the recommendations identified are appropriate and approve the annual work programme for 2019/20.

6.2 The Committee is asked to note the changes to the objectives for Clostridium difficile for 2019/20, the required actions as part of the AMR 5 Year plan and the measures to contain the current CPE outbreak on ward 8 with contributory risks highlighted.

6.3 The Committee is requested to consider the risks described in relation to specialist ventilation in healthcare premises, healthcare waste collection and the impact of the Reduction in Infectious Diseases /Microbiology Speciality Consultant support and approve the mitigations described

7 Appendices

Appendix 1: Infection Prevention and Control: Main Report

1. Introduction

1.1 The following report demonstrates progress against the annual infection prevention programme and in achieving compliance with national standards and performance indicators. The report provides assurance by monitoring the activity of infection prevention and control and identified key issues are noted. The Committee is asked to note the report in relation to compliance with corporate objectives; the Health & Social Care Act 2008: Code of Practice for the NHS on the prevention and control of healthcare associated infections and related guidance (commonly known as The Hygiene Code).

2. Strategic Context

2.1 To provide assurance on compliance with:

- NHS Outcomes Framework – domain 5: Treating and caring for people in a safe environment and protecting them from avoidable harm.
- Health & Social Care Act 2008: Code of Practice for the NHS on the prevention and control of healthcare associated infections and related guidance (commonly known as The Hygiene Code).

- NICE guidance.

2.2 This report summarises progress against the work plan for 2018/19 and sets out the Trust's infection control activities and performance. This is the Q4 report for 2019/20 and provides the final section which comprises the annual report.

2.3 The infection prevention programme of work continues to be delivered. The progress is monitored through the Infection Prevention and Control Committee (IPCC), which meets 6 times a year and has been chaired by the Assistant Director Infection Prevention & Control. Reports are submitted at each committee on progress against the annual plan and key performance objectives.

3. Objectives for reduction of HCAIs.

3.1 The objectives for reduction for *Clostridium difficile* infections (CDI) cases for 2018/19, has been reduced by 1 case from 2017/18 objective as 50 cases for this year. The objective for MRSA bacteraemia remains as zero tolerance.

3.2 **MRSA bacteraemia:**

- The Trust has investigated 9 cases and following PIR investigation, reported 1 attributed MRSA bacteraemia case on 13.11.18.
- A case investigated during April has been assigned as community associated cases and have been agreed with CCG and Local Authority representatives.
- Figure 1 is a statistical process (SPC) chart showing Trust allocated cases from April 2015 to present.

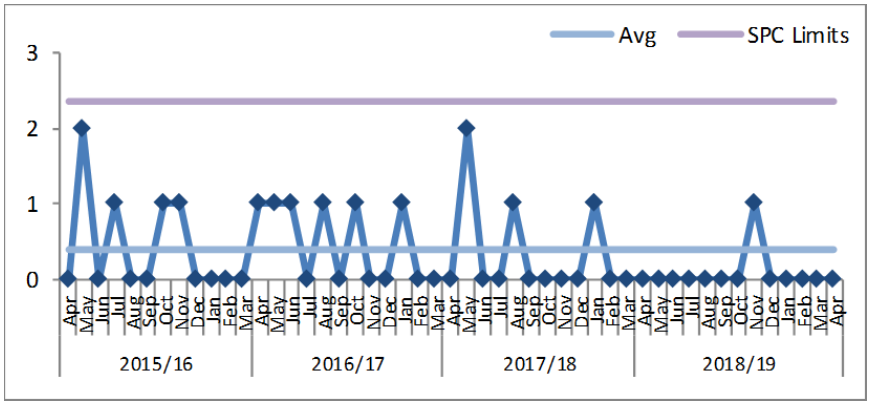

Figure 1

3.3 **MSSA Bacteraemia**

The Trust has reported 21 hospital attributed (>48hr) MSSA blood stream infections during 2018/19 (end of April 2019). This compares to 21 cases reported during 2017/18.

3.3.1 **Enhanced Surveillance of MSSA bacteraemia cases**

Enhanced surveillance is completed for MSSA >48hr cases and potential lapses of care are reported through the clinical incident reporting system. A review of the Incident investigations has highlighted the following key themes:

- A significant proportion related to cannula phlebitis.
- Central line, PICC lines also featured as a frequent source of the bacteraemia.
- Risk factors identified included patients with history of pancreatitis, chronic and post-operative wound infections and septic arthritis. Visual infusion phlebitis (VIP) observations were not consistently documented.

3.3.2 **Actions to support reduction of MRSA and MSSA Bacteraemia:**

- As part of the 2018/19 infection prevention work plan, an Aseptic Non-Touch Technique assessment programme for the care of invasive devices is in progress.
- Aseptic Non Touch technique (ANTT) is a practical framework for the application of aseptic technique during any invasive procedure or dealing with an invasive device.
- The need for standardised aseptic technique, is evidenced within the Health and Social Care Act 2008 (updated 2015), which states:
  - Education, training and assessment in the aseptic technique should be provided to all persons undertaking such procedures.
  - The technique should be standardised across the organisation.
- The programme aims provide training and competency assessment to 'key cascade trainers' for all wards by May 2019 and subsequently provide support to the key trainers with the rollout of ANTT theoretical and practical assessment within their work areas every 2 years.
- To date, 37 ANTT key trainers representing all Divisions have attended one of the monthly training/assessment sessions. There are now key trainers in place for all augmented care areas including NICU, ICU, Renal dialysis, Haematology and Oncology units.
- Following consultation with the Educational department, ANTT theory has been incorporated into the Infection Prevention and Control (IPC) mandatory training.
- The Educational dept. have similarly incorporated ANTT into the peripheral cannula insertion, venepuncture and urinary catheterisation training programmes delivered to clinical staff with successful competency achievement recorded on ESR.

3.4 *Clostridium difficile* infection

- There have been 22 cases of C difficile infection attributed to the Trust (>3 days' post admission) during 2018/19, against an annual trajectory of 50.

- Following PIR investigation, 6 cases have been reported as unavoidable with no lapses in care; In 16 cases there were identified lapses in care which were incidental and did not contribute to the infection.

- 2 cases (episodes of infection) have been reported from the same patient, as the specimens were taken more than 28 days apart and therefore counted as separate episodes, although it is likely that this was a relapse.

- The SPC chart (figure 2) below identifies the number of Trust attributed CDI cases.

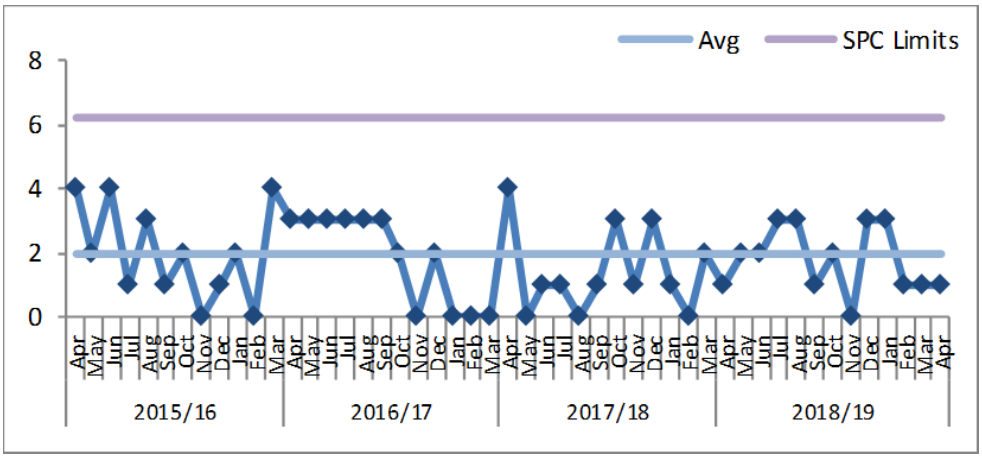

Figure 2

3.4.1 Post-infection Review (PIR) of C difficile cases

The PIRs are presented at monthly Divisional IPC meetings and action plans to correct any lapses of care are approved and monitored for completion through these meetings, with final assurance provided by the Divisional Heads of Nursing reports to the Trust IPCC. A review of the Trust attributed cases for 2018/19 following PIR investigation has highlighted the following key themes:

- Failure to isolate in a timely manner.
- Lapse of communication on transfer of a patient with diarrhoea.
- Bristol stool chart not completed.
- 6 cases identified lapses in antimicrobial stewardship relating to inappropriate prescribing (extended prophylaxis), timely review of antibiotics, lack of review of microbiology diagnostics to aid antibiotic correcting and failure to review antibiotics following C difficile diagnosis.

These cases have been discussed with Microbiology/ID colleagues and the clinician responsible for prescribing.

3.4.2 *Clostridium difficile* infection objectives for NHS organisations in 2019/20

- Objectives this year have been set using the data from 1 April to 31 December 2018. This data has been annualised and a count of cases calculated for each clinical NHS acute provider using the new case assignment definitions and the Trust objective for 2019/20 is 30 cases.
- This is a challenging objective with a reduction of 20 cases per year, plus a change to the case assignment definition so cases that were previously reported as community cases are now assigned as hospital cases.
- The changes to the CDI reporting algorithm for financial year 2019/20 are:
  - Adding a prior healthcare exposure element for community onset cases.
  - Reducing the number of days to apportion hospital-onset healthcare associated cases from three or more (post 72hr) to two or more (post 48hrs) days following admission.
- For 2019/20 cases reported to as Acute Provider associated infection are assigned using these two categories:
  - **Hospital onset healthcare associated (HOHA)**: cases that are detected in the hospital three or more days after admission.
  - **Community onset healthcare associated (COHA)**: cases that occur in the community (or within two days of admission) when the patient has been an inpatient in the trust reporting the case in the previous four weeks.
- Therefore there has been a shift in numbers of cases that are trust assigned, particularly as healthcare associated cases will include those with recent (last four weeks) hospitalisation. Based on PHE data, current estimates are that the proportion of healthcare associated cases will increase to around 65% of the total number of cases.
- For 2019/20, the contractual sanction that can be applied to each CDI case in excess of an acute organisation's objective will remain at £10,000.

3.5 Gram-negative Blood Stream Infections (BSI)

- The Department of Health launched new plans to halve the number of gram-negative bloodstream infections by 2021; this is primarily in relation to E coli bacteraemia, which is part of the national mandatory reporting of HCAIs.
- E.coli bacteraemia are primarily associated with urinary tract infections and biliary sepsis and the majority of these infections are community associated (i.e. identified within the first 48hrs of admission).
- The Trust has reported 36 >48hr E.Coli blood stream infections (BSI) attributed to the Trust. Figure 3 SPC chart highlights the Trust attributed E

Coli BSI cases per month. There has been a consistent decline during 2018/19 with an increase in cases seen in April.

- The 5 cases in April relate to biliary sepsis, cholangitis, neutropenic sepsis and urinary tract infection. There has also been an observed increase of community associated cases during March/April and replicates the seasonal increased observed in previous years.

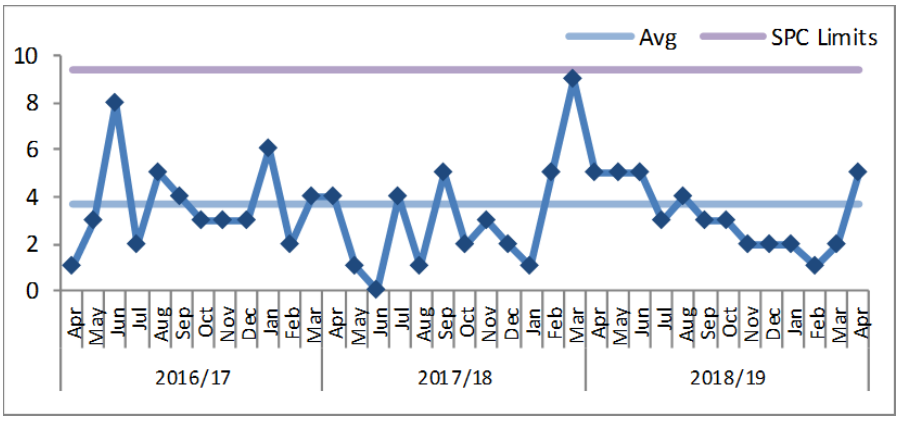

Figure 3

3.5.1 Gram Negative Improvement Programme

- The Trust's IPC team has commenced a collaboration project with colleagues in the CCGs and BMDC (Bradford Metropolitan District Council) Public Health to have a joint approach to improvement initiatives. This has been taken forward at the Bradford city Health Protection Assurance Group.
- The E Coli improvement strategy supports the collaborative work programme for the Infection Prevention Teams at Bradford Council and Bradford Teaching Hospitals NHS Foundation Trust, who will support the CCGs to develop action plans to reduce E. coli BSI.
- In addition a West Yorkshire HCAI collaborative is being developed by PHE and NHSI to ensure shared learning and improvement strategies. BTHFT have been invited to attend these meetings and represent Infection Control Nursing specialists.
- The IPC improvement programme, as part of the annual work plan, included promoting hydration to prevent urinary tract infections. The aims and objectives through a small test of change are:
  - To deliver a hydration education and training programme to nominated *'Hydration Champions'* on 2 designated wards, (Ward 29, Elderly Medicine & West Bourne Green, Community Rehabilitation Hospital) including structured drinks rounds.
  - To recognise patients who are at risk of poor oral fluid intake and to monitor and encourage oral fluid intake and identify patient's individual choices and preferences for drinks.
  - This programme is currently in its evaluation stage with the test ward nursing teams and a QI pack and training will be developed during 2019/20 to roll out to all elderly medicine wards.

- Further work is required to understand the key themes with biliary sepsis and urinary tract infections to try and develop prevention strategies.

3.6 Carbapenemase-producing Enterobacteriaceae (CPE)

3.6.1 Figure 4 shows the number of newly reported CPE cases identified on or during admission to BTHFT since April 2014. Sporadic cases continue to be identified related primarily to foreign travel. An increase in cases has been observed during Dec- Mar with linked cases identified, but also sporadic cases as part of the contact tracing programme initiated. (see 4.1 outbreak summary).

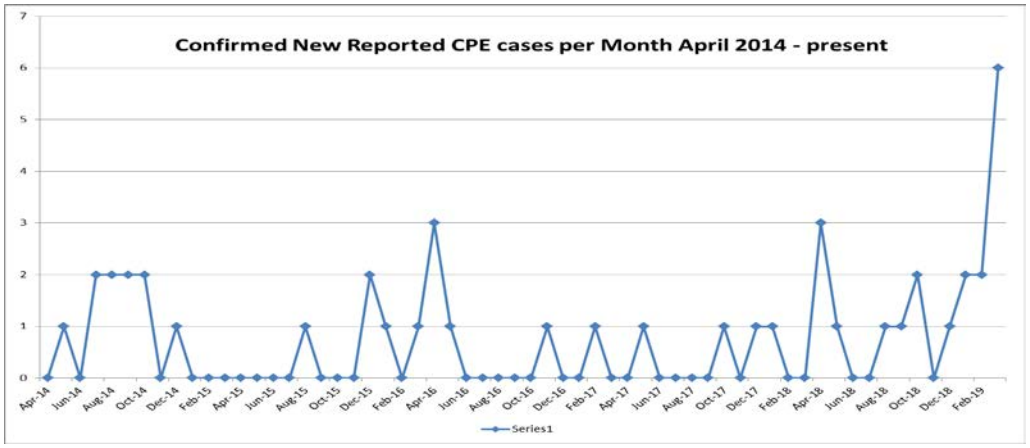

Figure 4

4. Outbreaks, Incidents and Bay/Ward closures

4.1 Outbreak of Carbapenemase Producing *Enterobacteriaceae* (CPE) : Update summary

- A CPE incident has been investigated with support from Infectious Diseases, PHE, Wards 8, 11 ICU Clinical Teams and risk management in relation to an observed increase in reported CPE cases (Klebsiella pneumonia and E.Coli).
- An Outbreak meeting was convened on the 23rd January to approve the actions completed and to decide any further recommended actions. The outbreak group continued to meet fortnightly to review cases and agree further actions. These have now ceased unless further cases are identified.
- Contact tracing identified 8 patients with CPE colonisation and from those contacts, 2 pairs of patients who share the same VNTR typing profile; (pair 1# have a different gene typing from pair 2#), with the remaining case having a unique typing and therefore likely to be an incidental finding as part of expanded screening.
- The index patients have multiple ward transfers during their inpatient stay; however ward 8 appears to be the commonality of ward stay where cross transmission potentially occurred. There is a possibility that there may have been cross transmission of CPE to one patient whilst an impatient on ward 21 but whole genome sequencing results is still awaited form the PHE laboratory.

- In accordance with trust policy, the incident moved from a PII to Outbreak and a follow up outbreak meeting was convened on 20th February.
- It appears from the investigation to date that there is a cluster of cases within surgical patients relating to ward 8, although the patient's admission journeys are complex and other ward admissions may be implicated as the investigation and contact tracing progresses.

4.2 **Outbreak Control Actions completed to date:**

- Identified Patient contacts for all inpatients CPE screening was performed following patient consent on all identified contacts at pre-assessment clinic, Ward 5 surgical day case ward or on the admitting ward as part of the patients admission process.
- The CPE screening alert was amended to differentiate between those patients who have been identified as requiring CPE screening as a result of ICU or ward 8 contacts (side room priority amber) and those identified as high risk due history of hospitalisation abroad (side room priority Red).
- The IPC team members have spoken to a number of in-patient contacts to ensure that they are fully aware of the rationale for CPE screening. Patient who are found to be positive following discharge are notified by letter which is supported with an informational leaflet.
- Once 3 negative CPE screen results have been obtained, the screening alerts have been removed from the patients ICE and EPR record.
- Both wards 8 and ward 11 were restricted to admissions and a full infection clean of both wards was performed followed by hydrogen peroxide vapour decontamination prior to both wards reopening to admissions.
- CPE newsletters have been developed to raise awareness for standard precautions and robust antimicrobial stewardship.
- A contributor risk factor identified during the outbreak related to the design and layout of the affected wards (i.e. wards 8 and 11) with Nightingale layout and limited sink: bed ratio and an inability to cohort affected patients in a defined area. A full survey of all wards at BTHFT is now in progress with the support of Estates colleagues to risk assess all ward design, layout and facilities in compliance with HBN 00-09 Infection Control in the Built Environment and CQC Regulation 15: Premises and equipment. The completed survey will support the development of any required risk assessments and recommendations.

5. Surgical Site Surveillance (SSIS)

5.1 BTHFT has continued to participate in the Public Health England (PHE) National Surveillance Program. For the mandatory surveillance of SSIS following orthopaedic

surgery, all NHS Trusts must participate in a minimum of one surveillance period in at least one category of orthopaedic procedures during a financial year. The financial year runs from 1st April in one year to 31st March in the following year: e.g. 1st April 2018 to 31st March 2019. Surveillance of SSI includes four mandatory orthopaedic modules (hip prosthesis, knee prosthesis, repair of neck of femur and reduction of long bone fracture).

5.2 BTHFT has participated only in the mandatory orthopaedic National surveillance modules for one quarter per year. BTHFT participated in Q3 (Oct – Dec 2018),table 2 below reports SSI data for reduction of long bone fracture with an SSI infection rate of 2.7% however this is based on 1 infection case.

Operations & surgical site infections		Your hospital	
		Selected period	Last 4 periods
Operations	Total no.	37	37
	No. with PQ given	36	36
	% PQ completed	94.4%	94.4%
Surgical Site Infection	No. inpatient/readmission	1	1
	% infected	2.7%	2.7%
	No. post-discharge confirmed	0	0
	% infected	0.0%	0.0%
	No. patient reported	0	0
	% infected	0.0%	0.0%
	All SSI	1	1
	% infected	2.7%	2.7%

Table2

5.3 Table 3 below reports SSI data for hip replacement with an SSI infection rate of 1.8% however this is based on 1 infection case.

Operations & surgical site infections		Your hospital	
		Selected period	Last 4 periods
Operations	Total no.	55	174
	No. with PQ given	55	174
	% PQ completed	89.1%	95.4%
Surgical Site Infection	No. inpatient/readmission	0	0
	% infected	0.0%	0.0%
	No. post-discharge confirmed	1	2
	% infected	1.8%	1.1%
	No. patient reported	0	0
	% infected	0.0%	0.0%
	All SSI	1	2
	% infected	1.8%	1.1%

Table3

5.4 Table 4 below reports SSI data for repair of neck of femur with an SSI infection rate of 1.8% however this is based on 1 infection case.

Operations & surgical site infections		Your hospital	
		Selected period	Last 4 periods
Operations	Total no.	36	36
	No. with PQ given	35	35
	% PQ completed	91.4%	91.4%
Surgical Site Infection	No. inpatient/readmission	1	1
	% infected	2.8%	2.8%
	No. post-discharge confirmed	1	1
	% infected	2.8%	2.8%
	No. patient reported	0	0
	% infected	0.0%	0.0%
	All SSI	2	2
	% infected	5.6%	5.6%

Table 4

5.5 Table 5 below reports SSI data for knee replacement with an SSI infection rate of 5.8% and this is based on 5 infection case. The reports have been presented to the Orthopaedic governance meeting with a review of the cases identified in progress by the Orthopaedic teams.

Operations & surgical site infections		Your hospital	
		Selected period	Last 4 periods
Operations	Total no.	86	285
	No. with PQ given	86	285
	% PQ completed	87.2%	96.1%
Surgical Site Infection	No. inpatient/readmission	0	0
	% infected	0.0%	0.0%
	No. post-discharge confirmed	0	1
	% infected	0.0%	0.4%
	No. patient reported	5	7
	% infected	5.8%	2.5%
	All SSI	5	8
	% infected	5.8%	2.8%

Table5

5.6 The completion of the SSIS data collation requires resources to review each individual patient within the specified surgical procedure module as all patients undergoing the procedure must be included within the quarter surveillance period. The patient will be reviewed post-operatively to ascertain if they meet the strict criteria of a wound infection. This data is then manually entered onto the PHE data capture system (DCS).The resources to expand SSIS have been part of collaborative discussions with the Division of Anaesthetics and Surgery, with the agreement to provide a nurse part-time for the clinical review and data capture with support from the IPN team, including data entry.

5.7 The provision of the part-time nurse has allowed further discussion with the Division to agree a further module to be completed for April – June 2019 (Q1) for breast surgery. It is hoped that further modules will be completed in other surgical procedures during Q2,3 & 4 2019-20, however this is dependent on the current resource provision continuing.

6. Infection Prevention Programme of Work

6.1 The Infection Prevention Team have supported clinical areas with a number of improvement projects to enhance compliance with infection prevention and control practices which has included the following:

- Additional ward based training for *Clostridium difficile*
- Norovirus awareness day and information stall
- Glove awareness ward based training
- Glove and PPE audit completed
- IPC Link worker study day in collaboration with Bradford Community Teams
- Bespoke IPC training for Facilities staff
- Spot-check observational audits of hand hygiene and PPE usage
- Supporting additional training for Porters who currently handle waste
- Fit test training to ensure correct fit for FFP3 masks/respirators as per HSE guidance
- Urinary catheter care audit in progress
- Additional education to staff on effective cleaning

6.2 The annual work programme has been drafted for 2019/20 (refer to Appendix 3) and incorporates the progress to embed the QI work commenced in 2018/19 and to support the delivery of an improvement programme which supports the key objectives of the E.Coli bacteraemia reduction and the AMR 5 year plan.

7. Infection Control Committee Sub- Group Reports

7.1 There are 5 sub group meetings as well as Divisional IPCC Sub-groups as part of the reporting and governance structures for the Infection Prevention and Control Committee to support assurance with the Health and Social Care Act (H&SCA) 2008: Code of Practice for the NHS on the prevention and control of healthcare associated infections and related guidance. The following chapters provide a summary of activities during 2018/19.
The sub groups are:

- Decontamination Steering Group
- Cleaning and Patient Environment Group
- Ventilation Steering Group
- Water Safety Steering Group
- Waste producers meeting

7.2 **Decontamination Steering Group – Summary Report**

7.2.1 The Decontamination Advisory Group chaired by the Trust Decontamination Lead and a multi-disciplinary membership has continued to meet, reporting to the IPCC. The agenda covers issues relating to the B Braun Sterilog Decontamination Contract, WWP and Trust decontamination issues. The group membership includes the Trust Assistant DIPC, and representatives from service users and stakeholders.

7.2.2 **B Braun Sterilog (BBS) – Sterile Service Provider**.

The Trust is nearing the end of its 15 year decontamination service contract with B Braun Sterilog. The current decontamination service agreement will end in April 2022. The original contract had an option to extend for 5 years until 2027. An options appraisal and benchmarking exercise has been completed involving senior management from the three-partner Trust in the collaboration. The preferred option agreed by all partner Trusts is to extend the contract for 5 years. This option provides,

- Assurance of quality service provision, maintaining the safety of patients and efficiency of clinical service delivery.
- Financial certainty in a volatile funding environment.
- An opportunity for the NHS wholly owned subsidiary companies to mature and establish commercial expertise and be considered a provider at the end of the extended contract.

7.2.3 **Endoscope Decontamination**

- The Endoscopy decontamination departments continue to demonstrate best practice as required by JAG, CQC and HTM guidance; HBN 13, HTM 01-01, and HTM 01-06.
- The Trusts appointed Authorising Engineer (Decontamination) continues to provide advice and guidance to support the unit with technical and compliance issues.
- Weekly checks, including rinse water testing for water quality and TVC's, and the required quarterly and annual testing/ servicing are performed by the Trust's appointed Competent Person for Decontamination (CP(D)). The process is overseen by the Trust Decontamination Manager. Any testing failures are managed in line with the Trust Decontamination Policy in liaison with the IPPC team and colleagues from Microbiology as required.
- The facilities passed the annual (JAG) IHEEM Decontamination Technical Platform review of Flexible Endoscope Decontamination Facilities in April 2018. All Automated Endoscope Re-processors (AER) and drying cabinets at BRI and WWP were revalidated and serviced in January 2019. Previous quarterly tests were all successfully completed.

- There are some outstanding issues with ventilation compliance at WWP which are being addressed through the Ventilation Systems Working Group.
- There have been some issues with the Olympus 290 series of endoscopes which are suffering from water ingress which is causing the scopes to fail when connected to camera stacks. We are hopeful that the cause has been identified and are currently reviewing the re-processing to ensure the cause is controlled.

7.3. **Cleaning and Patient Environment Group – Summary report**

7.3.1 The operational cleaning policy and procedures outlines the responsibilities of cleaning services as well as the responsibilities of all members of staff to ensure the provision of a clean hospital environment. The Cleaning Services Department complete audits in accordance with the national specifications for cleanliness in the NHS: a framework for setting and measuring performance outcomes (2007). Assurance of compliance is provided via bi monthly reports presented at the monthly Infection Prevention and Control Committee (IPCC).

7.3.2 **Cleanliness Audit Process and Compliance**

- All wards and departments are categorised into one of four risk categories by the Infection Prevention and Control Team and Cleaning Services, which outlines the target score for each category and the frequency of audit to be undertaken.
- Below provides the quarterly cleanliness audit scores against each of the risk categories and demonstrates cleanliness has been maintained above the target minimum performance score for the reporting period 1 April 2018 to 31 March 2019.

Reporting Period	**Very High Risk Target Score**	**High Risk Target Score**	**Significant Risk Target Score**	**Low Risk Target Score**
	98%	95%	85%	75%
Quarter 1	98.87%	98.70%	96.78%	91.39%
Quarter 2	98.93%	99.26%	97.40%	95.02%
Quarter 3	98.76%	98.73%	97.24%	99.17%
Quarter 4	98.83%	98.57%	98.45%	98.43%

- The scores above reflect a total of 1253 routine cleanliness audits compared to 749 in 2017/18. There were 17 failed audits (1.3%). All failures have action plans in place at the time, until all issues are addressed. In addition those areas are re-audited at an increased frequency until the required standard is achieved and maintained consecutively. As part of the policy update there was a change in audit frequencies which saw very high risk areas audited fortnightly and yearly in low risk areas. The top 5 reasons for failure are build up, dust, badly cleaned, lime scale, below standard.

- The cleaning training has been revised in 2019 in conjunction with Infection Control it will continue to be used to train and re-train staff throughout 2019 with a focus on reasons for failure.

7.3.3 Infection cleaning following patient discharge

- Cleaning services continue to meet high demand to support the clinical teams to maximise patient flow by ensuring a rapid response to infection cleaning requests, following patient discharge.
- In this reporting period the dedicated team completed 10,609 infection cleans compared to 10,508 in the same period 2017/18.
- As part of the assurance process Cleaning Supervisors use Adenosine Triphosphate Testing (ATP) to test two infection cleans per week to ensure effective cleaning has taken place, along with testing before a HPV decontamination. The tests are recorded and reported as part of the monthly presentation to IPCsC.
- The ATP results for the reporting period are 93.47% pass rate, 3.97% caution and 2.56% fail. The cleaning management team have reviewed and enhanced infection clean training and the Cleaning Supervisors have undertaken ATP testing training.
- The Infection Clean Team provides HPV decontamination of side rooms using a Deprox system, following the discharge of patients where CPE or C-Diff has been identified. Total numbers of 240 HPV decontaminations were undertaken with 4 failed attempts (1.6%).
- Additional support was arranged for wards 8 and 11 during the CPE outbreak, both wards received full decontamination using HPV.

7.3.4 Improvements and Initiatives to Service Delivery

- During 2018 the Trust Cleaning Policy was reviewed in detail by Facilities and the Infection Prevention Control Team.
- A multi-disciplinary group has been formed chaired by the Head of Facilities and has been a successful forum to improve communication and engagements relating to cleaning, estates, food hygiene and infection control, any issues that cannot be resolved are escalated to IPCC.
- A number of UV light units have been successfully trialled during 2018.
- A combined focus between Estates, Facilities, Infection Prevention and Control and the Clinical Management Teams in all theatres has improved the overall environment and cleanliness. Continued monitoring is in place.
- Participated in the NSoC pilot.

7.3.5 Planned for Next Year

A number of initiatives are planned for 2019 including:

- Upgrade of the HPV decontamination unit to the latest model which will result in a quicker turnaround of side rooms and bays.
- Introduce steam cleaning in public area (circulation and toilets).
- Live curtain change web page.
- Hand held computers for all supervisors which will allow closer shop floor supervision.
- Efficacy checks to support compliance.

7.3.6 Ventilation Steering Group – Summary Report

- The Ventilation Steering group with a multi-disciplinary membership has continued to meet, reporting to the IPCC. The agenda covers issues relating to HTM 03-01: Specialised ventilation for healthcare premises (Part B) which sets out the guidance on operational management, the legal requirements, design implications, maintenance and operation of specialised ventilation in all types of healthcare premises. HTM 03-01 also sets standards required for management responsibilities, training requirements, governance arrangements, minimum ventilation systems requirements and inspection and verification standards.
- During 2018/19 all clinical departments (i.e. theatres, interventional radiology, ICU, isolation rooms, mortuary, pathology etc.) which fall within the requirements of specialist ventilation in healthcare premises, have been mechanically assessed, externally validated and risk assessed where failure to achieve the correct ventilation has been identified. Issues raised have been escalated through the Patient Safety Committee and the DIPC to the Executive Management Team.
- A task and finish group has been set up to assess the level of risk for each area, any mitigations in place and the risk priority for improvement work. This work is in progress however all risk assessments are in place and monitored.
- There is an active risk on the SRR relating to maternity theatres and a wider piece of work with the Chief Operating Officer to evaluate the site ventilation; this will include capital recommendations and a schedule of works. It is anticipated that the proposals will be worked up over the next 4 months.
- A new external contractor and Authorised Engineer (specialist advisor) have been appointed during 2018/19 to ensure that any ventilation validation reports are completed correctly and reviewed by an expert advisor.

7.4 Water Safety Steering Group – Summary Report

- Contamination with Pseudomonas in water outlets is being managed in accordance with HTM-04 guidelines (Health Technical Memorandum) and reported at both the Water Safety Working and Steering Groups which meets 4 times a year.
- Six monthly water sampling is undertaken in all augmented care areas on both sites (of approx. 424 water outlets); the contaminated outlets are

managed accordingly by fitting point of use filters and undertaking the necessary remedial works.

- Whilst the number of contaminated water outlet has reduced substantially, the Trust is still reporting 30 contaminated outlets and therefore further work is needed to ensure any waste water is not disposed of into clinical hand wash basin drains where gram negative organisms such as Pseudomonas (or CPE bacterium) can multiply.
- Legionella is being managed in accordance to the HSE L8 guidelines and reported at both the Water Safety Working and the Steering Groups. Quarterly water sampling has been undertaken in all clinical areas at the identified sentinel outlets where risks have been identified (i.e. failed water temperature controls); the contaminated outlets are managed accordingly by fitting point of use filters and undertaking the necessary remedial works.
- Wards M1 and M2 in the Maternity block where extensive works was undertaken rationalising water outlets following detection of legionella across the departments.
- Actions Implemented: a review has been undertaken for non-clinical areas where there are water outlets (sinks, hand wash basins and showers, etc.) to ensure that if the outlets are not being used on a regular basis for long periods of time that sufficient water is being circulated through the system to prevent legionella forming. This has meant removal of some sinks in the offices in M1. Therefore by limiting the number of water outlets in the office/non-patient areas this increases water usage and improved flow to the remaining water outlets which mitigates the risk of legionella.

7.5 Waste Producers Group – Summary Report

7.5.1 The Waste Producers Group has a multi-disciplinary membership has continued to meet monthly, reporting to the IPCC. The agenda covers issues relating to Health Technical Memorandum 07-01 – Safe management of healthcare waste which sets out the guidance on operational management and legal requirement to comply with the EU Waste Framework Directive, or Directive 2008/98/EC of the European Parliament and the Council of 19 November 2008 on waste. The chapter below provides an update on the clinical waste position in the Trust, and provides assurance as to how this is being assessed and managed.

7.5.2 Issues relating to Waste Management

- In August 2018 Bradford Teaching Hospitals NHS Foundation Trust (BTHFT) was informed, along with other Trusts, that concerns had been raised by the Environment Agency about the contractor it used for the collection and disposal of its clinical waste. This was closely monitored by NHS England (NHSE) who provided regular updates to BTHFT.
- On 6 October 2018, the contract with this company was terminated, and contingency arrangements put in place until an Emergency contract was put in place.

- Prior to this incident, BTHFT received a daily bin collection from the Bradford Royal Infirmary (BRI) main site, and then scheduled collections, from maternity, pathology, clinical research, St Luke's Hospital (SLH) and some of the community sites. As long as waste was segregated and tagged appropriately they would take all waste types at each collection. The last clinical waste collection from BTHFT under the old contract was on the 6th October 2018, when bins of waste were taken but they were not replaced by empty bins. No further collections happened after this date.

7.5.3 **Incident Response**

- A plan was enacted, which involved purchasing bins with drop down fronts, collecting waste from the waste rooms, then decanting the waste into shipping containers located within the grounds.
- An incident group was set up including representatives from clinical teams, Estates and Facilities, Infection Control, Emergency Planning and Risk, whose remit was to coordinate the incident within BTHFT.
- It was identified that incineration capacity was a concern, therefore BTHFT incident group agreed to remove yellow bag waste, replacing with orange waste stream. Some waste would still require incineration, such as sharps but the requirement for incineration was significantly reduced.
- Risk assessments were undertaken for all new processes and of contingency storage arrangements and new method statements put in place which identified safe systems of work, and the requirement for new PPE.
- A new waste collection company with the support of NHSE was assigned and removed the backlog of waste stored in containers and provided a storage container solution for orange bag waste, which was collected 3 times a week. Authorisation was provided by the Department for Transport (Dft) to remove waste and transport in a lorry.
- Anatomical waste was stored in the mortuary, in dedicated shelf space and collected from site once a week. Any sharps and biobins were stored in bins in either a container or the waste compound, awaiting a weekly collection.
- As the situation continued, the level of waste stored on site was minimised. Whilst the service received was not optimal, regular collections were in place and storage on site kept to a minimum. A contract was put in place with a bin washing company, who attend site 3 times a week to clean out the bins and prevent any Infection Control issues and concerns.

7.5.4 **Current Situation**

- At the BRI site there are 11 shipping containers, each of which are or have been in use to store waste. These are holding any sharps or bio boxes produced by the Trust. Anatomical waste is being stored in the refrigerated unit by situated by the mortuary and has had a number of collections, with the last being in May.
- All orange waste is now being moved off the BRI site 7 days a week a bin exchange. A trailer remains on site as a precaution and should there be any

problems with collection of the bins, this will allow waste to be placed in the lorry and removed from site.

- The Environment Agency (EA) have put in place a Trans Frontier Shipment (TFS) which will give authority for waste (predominately sharps) to be sent to Sweden for incineration. The TFS will provide a 12 month commitment for the transfer of waste, and would not be impacted on by EU-exit. The first shipments are to be sent over the weekend of the 1st June 2019 and if successful, then the tonnage removed will start to increase.
- Eventually BTHFT will need to reduce decanting and double handling of waste, however whilst this continues risk assessments are being regularly reviewed and staff requested to follow the appropriate method statements. Staff have also been provided and trained to use appropriate personal protective equipment (PPE).
- In conclusion, there have been challenges with regard to the management of waste at BTHFT since October 2018, and whilst services are not back to business as usual, they are well managed and monitored and issues escalated when they arise. Whilst some waste remains stored in shipping containers, the recent implementation of a serviced bin collection for orange waste, shows that improvements are being made, and the new contractors are working to bring service back to as close to optimum. However in the interim, the arrangements have been fully risk assessed and suitable standard operating procedures are in place.

8. Audit Programme

8.1 The annual hygiene code spot check audit programme has completed 79 wards/department audits during 2018/19. The audit reports compliance with standards of environmental hygiene and in relation to infection prevention policies and national best practice.

8.2 The percentage required to achieve compliance is > 75%. This is in keeping with the Trust cleaning standards and additionally promotes sustained improvement in delivering safe care. Any ward that does not achieve >75% is immediately escalated back to the ward manager, Matron and Divisional Nursing team. An action plan is requested and a re-audit undertaken once actions are confirmed as completed.

8.3 The graphs below highlight the average percentage score for wards and Departments. Significant focus has continued on specific areas of high-risk activity such as commode cleanliness, hand hygiene and personal protective equipment (PPE) compliance, which are regularly audited by the IPN team in addition to the hygiene code audits.

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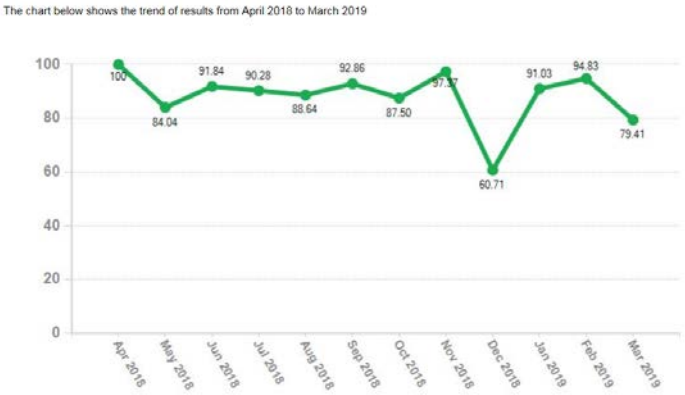
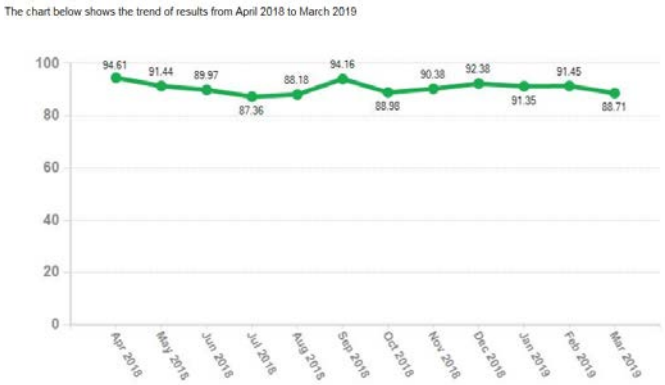
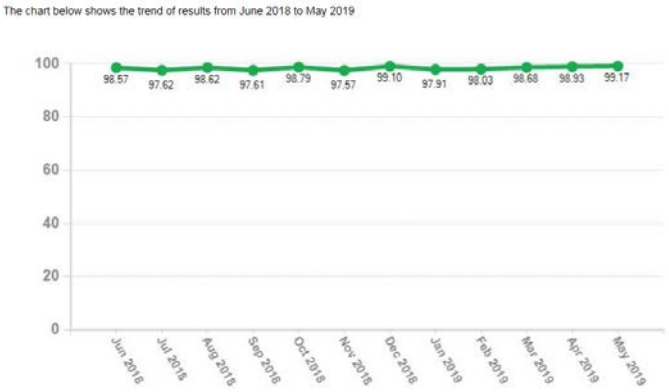
Graph 1: Commodes are clean (N=79 audits completed)



Graph 2: Joint IPN & Matron audit (N=79 audits completed)



Graph 3: Hand Hygiene audit (N=8725 audits completed)



8.4 **High Impact Intervention Audit Programme**

- In addition to the hygiene code audits, there is a comprehensive programme for auditing compliance with standards of infection prevention for clinical practice. These are called High Impact Interventions (HII) and are nationally recognised standards of practice.
- The audit results are monitored and any actions to correct shortfall in compliance are followed up in the Divisional IPCC meetings and issues reported to the IPCC.
- The IPC Nursing team also undertake spot- check observation audits as part of the annual work programme for 2018/19 and provide support to those staff that require further training. The overall Trust compliance average of 92% was reported.

9. Mandatory Training

- The table in appendix 2 highlights the compliance for completion of the infection control annual update.
- There has been an overall increase in compliance of 86% during 2018/19 compared with 72% during 2017/18.
- The Divisional compliance data has been scrutinised further to identify and support those wards/departments or clinical team who were struggling to access the Mandatory training lectures or the e-learning programme. A short assessment component will be developed as part of the 2019/20 work programme so that staff that successfully completes the assessment will not be required to complete the full training.

10. Assessment of Impact of Reduction in Infectious Diseases/ Microbiology Speciality Consultant support

10.1 The Infectious Diseases (ID) in partnership with the Consultant Microbiology service support the Trusts requirements under Regulation 12(2)(h) and 21(b) of the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014. The above regulations states that an infection prevention infrastructure should encompass:

- In acute healthcare settings, an infection prevention team consisting of an appropriate mix of both nursing and consultant medical expertise (with specialist training in infection prevention and cleanliness).
- 24-hour access to a nominated qualified infection control doctor (ICD).

10.2 Infectious Diseases Consultants have a strong involvement with acute medicine and surgical specialties. During these referral visits, the ID team routinely provide infection control advice to the ward nursing and medical teams and thereby acting as a significant resource for the IPC team. This support maybe subtle and unquantifiable but has been an essential component of infection control service. Therefore, the gap and implication of the loss of this service are:

- Reduction in daily specialist assessment of patients following admission where communicable infections and/or HCAIs are assessed and isolation management is advised.
- This is currently provided by the 4 ID physicians and would potentially be risks of missed or late referral for patients with communicable diseases and HCAIs with the potential to cross transmission to other patients.

10.3 The ID/Microbiology Consultants provide advice and guidance to Emergency department and ward Medical and Nursing teams for:

- Clinical interpretation of microbiology/virology results (e.g. antibiotic resistance, blood born virus infective status)
- Analysis of antibiotic resistance patterns and interprets their significance in relation to isolation risk assessment and potential outbreaks.
- Risk assessment for ‘high-risk’ isolation management,(e.g. MERS, SARS, Ebola)
- Assessment of patients and staff with potential communicable diseases (e.g. measles, mumps, whooping cough,) and advice for contact tracing, cohorting etc.
- Risk assessment for BTHFT staff/other healthcare workers/Police etc., for blood
  borne virus occupational exposure
- Clinical interpretation for the investigation of an incident or outbreak.
- Written protocols for diagnosis and management of flu, neutropenic sepsis etc.

10.4 **Potential Options to Mitigate the Gaps in Service**

- A task and finish group has been instigated and lead by the Chief Operating Officer / Deputy Chief Executive to review the ID/Microbiology service shortfall, its impact across Trust services, mitigations to support services and options for alternative future models of an Infection service.
- As part of the service review, the IPC Team are providing a significant increased daily presence to ward areas routinely visited currently by the ID Consultant team to pick up those infection cases not consistently

communicated to the IPC team (i.e. the early identification of communicable infections or HCAIs). This is being supported with recruitment of an additional IPC Senior Nurse Specialist.

- Conventionally the Infection Control Doctor (ICD), which is either a Microbiologist or ID Physician, would lead the Infection Control Service. Since March 2018 the duties of an Infection Control Doctor and IPC service Lead have been undertaken by the Nurse Consultant IPC with the support of the Lead Nurse IPC; this aspect of the role is vital for specialist strategic advice to the Trust and to meet compliance with National guidance, standards and legislation and statutory regulations.
- The IPC Team with leadership from the Nurse Consultant are establishing limited elements of the ID Consultant role to mitigate the following gaps:
  - Risk assessment for 'high-risk' isolation management, (e.g. MERS, SARS, Ebola).
  - Assessment of patients and staff with potential communicable diseases for risk of transmission to others (e.g. measles, mumps, whooping cough,) and advice for contact tracing, cohorting etc.
  - Risk assessment for BTHFT staff/other healthcare workers/Police etc., for blood borne virus occupational exposure and signposting to relevant specialist services.
  - Written protocols for diagnosis and management of flu, neutropenic sepsis etc.
- Whilst the above mitigations can be seen as a positive development of the IPN role, there is a risk from the loss of the specialist expertise and experience to support clinical teams with patients who have complex infections and the impact on antimicrobial stewardship/Antimicrobial resistance (AMR) National obligations.
- The potential future model of IPC Advanced Practitioner is also being researched in light of the limited ID/ Microbiology Consultant support, as part of a multidisciplinary Infection Service Team. This will be discussed further at the task and finish meetings.

11 Report Recommendations

- The report provides assurance to the Board of Directors by monitoring the activity of infection prevention and control annual work programme and is requested to confirm the actions arising from the recommendations identified are appropriate and approve the annual work programme for 2019/20.
- The Committee is asked to note the changes to the objectives for Clostridium difficile for 2019/20, the required actions as part of the AMR 5 Year plan and the measures to contain the current outbreak on ward 8 with contributory risks highlighted.
- The Committee is requested to consider the risks described in relation to specialist ventilation in healthcare premises, healthcare waste collection and the impact of the

Reduction in Infectious Diseases /Microbiology Speciality Consultant support and approve the mitigations described.

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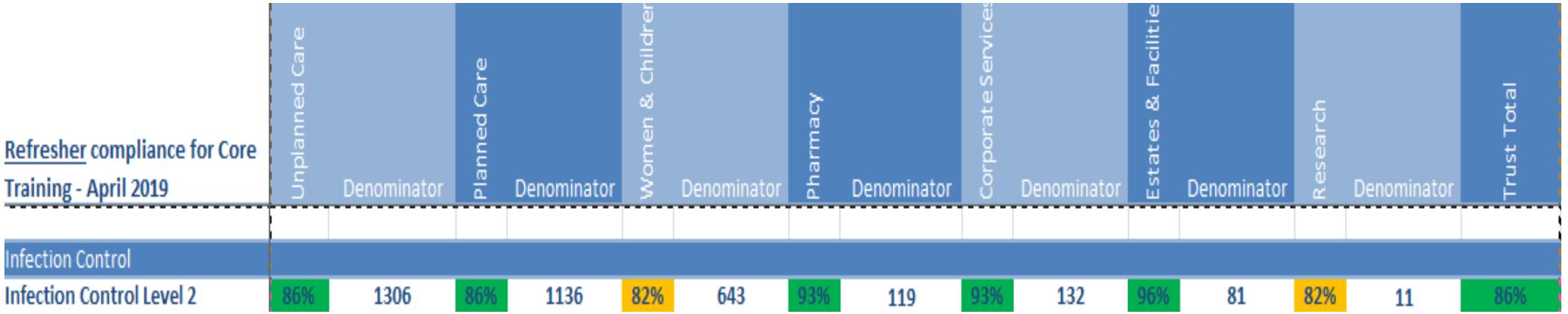
Appendix 2: Mandatory Training Compliance



Refresher compliance for Core Training - April 2019	Unplanned Care	Denominator	Planned Care	Denominator	Women & Children	Denominator	Pharmacy	Denominator	Corporate Services	Denominator	Estates & Facilities	Denominator	Research	Denominator	Trust Total
Infection Control															
Infection Control Level 2	86%	1306	86%	1136	82%	643	93%	119	93%	132	96%	81	82%	11	86%

R	red behind schedule with significant risk to implementation
A	ongoing with moderate risk to implementation
Y	ongoing with limited risk to implementation
G	no risk to implementation or complete

Meeting Title	Board of Directors		
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Appendix 3: Annual Work Programme: 2019/20

QS No.	Standard required	Where we are now	What we need to do to meet the Standard :Actions for 2019/20	R A Y G	Timescale & individual responsibility.
Infection Prevention & Control Annual Work plan: 2019 -20					
Criterion 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					
1.1	**Appropriate management and monitoring arrangements should ensure that:**				
1.1.1	A registered provider outlines its collective responsibility for keeping to a minimum the risks of infection and the general means by which it will prevent and control such risks	There is an Infection Prevention and Control Committee with terms of reference, committee work plan; annual programme of work and an annual report. The IPCC is a sub group of the Patient Safety committee which is a sub-committee of the Quality committee. Infection Prevention reports are submitted to the Patient Safety and Quality Committees.	IPCC terms of reference to be amended to include new Management structure with development of Urgent Care Clinical Business Unit (CBU) IPCC Sub-group. CBU IPCC Subgroup Leads to attend Trust IPCC and provide report on : • Relevant significant clinical incidents with completed action plans • Assurance for IP&C, ANTT, fit testing mandatory training • Assurance for IP&C audit programme • Escalation of any risks from CBU sub group Quarterly reports from Trust IPCC submitted to Patient Safety sub -committee and Quality		IPN Team 30.7.19 And ongoing

			Committee. The annual report and work programme is submitted to the Quality Committee.		
1.1.2	The principles and practice of prevention of infection (including cleanliness) are included in induction and training programmes for new staff. There is appropriate ongoing education for existing staff (including support staff, volunteers, agency/locum staff and staff employed by contractors), which should incorporate the principles and practice of prevention and	Training programme currently covers mandatory infection control and complies with National Core Skills Framework. Record of Mandatory training held centrally, however compliance not monitored by IPCC routinely. Respirator Fit testing is not fully embedded so that relevant staffs have received training and assessment within the correct timeframe.	**Mandatory Training Programme:** 1. Review of IP&C mandatory training delivery methods support staff compliance with annual update. Develop assessment process to supplement training. 2. Develop programme for fit-testing and register of trained trainers for each ward and department. 3. Review mandatory training content to		IPN Team with support from Learning & Development Team 30.9.19 and ongoing

	control of infection.		ensure PPE and hand hygiene have clear consistent message 4. Continue “Gloves are off campaign” and embedding of WHO 5 moments for hand hygiene. 5. Link worker profile, training, competencies and information pack to be developed 6. Quarterly IPC newsletter highlighting key topic to be developed and published 7. Hand hygiene assessment via cascade system to be implemented with badge sticker for compliant staff. 8. IPCC to receive compliance data on IPC training including ANTT and Fit testing		
	Education, training and assessment in aseptic technique (ANTT) should be provided to all persons undertaking such procedures.	Current training and assessment for ANTT not embedded as routine practice. High incidence/rate of MSSA bacteraemia during 2018/19 compared to National average. Need focus on lessons learnt from PIRs and improve care of IV lines and urinary/super-pubic	**ANTT Programme:** Continue to implement programme of training and assessment for ANTT for relevant healthcare professionals. Training/assessment programme at induction will also be provided.		IPN Team /Education Team 30.12.19

		catheters. This needs a focus aseptic non touch technique.	Register of trained trainers to be developed.		
1.1.3	A programme of audit is in place to ensure that key policies and practices are being implemented appropriately	There is an audit programme which covers the DoH High Impact Interventions (HII) for clinical practice; standards of environmental hygiene and fundamentals of infection prevention. These are reported via the Meridian audit system and compliance with these audits is reported to the IPCC. Observations of practice during 2018/19 highlighted 'key parts' not protected/ '5 moments hand hygiene' not consistent/ PPE practices for ANTT not understood.	**Audit Programme:** Continue to deliver joint IPN & Matron Hygiene code spot-check and Peer review High Impact Intervention (HII) audits as per agreed audit programme. Provide training for those nurses undertaking Infection prevention audits and HII's to ensure standardisation of auditing. Implementation of "fundamentals of Infection Control" with emphasis on IPN ward –based focussed support to ensure compliance with hand hygiene, use of PPE and standards of cleaning are optimised. Implementation of IPN spot-checks audits and rapid feedback process.		IPN Team /Education Team 30.12.19
1.1.4	Designation of a decontamination lead.	There is a Decontamination Lead and a Decontamination group which reports quarterly to the IPCC There is an annual audit of decontamination services including Endoscopy which is produced by the Authorised Engineer.	**Decontamination Programme:** Formal quarterly report from Decontamination group to be implemented as part of the revised terms of reference for the IPCC and the IPCC work plan.		Decontaminatio n Lead 30.3.19
1.2.	**Risk assessment - A registered provider should ensure that it has:**				
1.2.1	Made a suitable and sufficient assessment of the risks to the	**Tackling antimicrobial resistance 2019–2024 The UK's five-year national action plan (Jan**	**HCAI improvement programme:** to include Gram Negative Bacteraemia improvement		IPN team ,

	person receiving care with respect to prevention and control of infection:	**2019)** 1. Sets out measures to ensure progress towards 20-year vision. These include targets to: ▪ halve healthcare associated Gram-negative blood stream infections (25% reduction by 2020/21); ▪ reduce the number of specific drug-resistant infections by 10% by 2025; ▪ Add CPE to list of notifiable diseases ▪ reduce UK antimicrobial use 15% by 2024; ▪ Report on the % of prescriptions supported by a diagnostic test or decision support tool by 2024. 2. Implement Bradford Collaborative E Coli reduction strategy 3. **CQUIN 2019/20 CCG1**: Adherence to national antibiotic guidance in treatment of Lower Urinary Tract Infections in older people and antibiotic prophylaxis in elective colorectal surgery	programme - **Hydration awareness** and promotion – Evaluate 2018/19 programme, develop change package with embedding programme to all wards.(ie training package, leaflets, bulletins, etc) **Patient hand hygiene QI programme** - Evaluate 2018/19 programme, develop change package with embedding programme to all wards.(i.e. training package, leaflets, bulletins, etc.) Develop systems for notification of CPE cases **CQUIN 2019/20 CCG1** 1. Develop and ratify protocol to aid diagnosis of Urine infections (UTI) and when to use dipstick urinalysis 2. Develop and implement training package to support compliance with protocol Develop awareness bulletins, newsletters, etc as support for protocol		30.1.20 and ongoing

		Post Infection Reviews (PIR) is undertaken for MRSA bacteraemia, hospital associated Clostridium difficile. The changes to the CDI reporting algorithm for financial year 2019/20 are: o Adding a prior healthcare exposure element for community onset cases(i.e. Community Onset, Healthcare Associated - COHA) o Reducing the number of days to apportion hospital-onset healthcare associated cases from three or more (post 72hr) to two or more (post 48hrs) days following admission	1. MRSA /CDI PIRs to be completed within 14 working days of notification. 2. MRSA and CDI PIR summary with completed action plan to be presented by CBU Team to the CBU and Trust IPCC for the following month committee date 3. Implement changes to reporting criteria with Performance Team 4. Ensure all relevant cases receive PIR and share outcome with CCG Commissioner.		CBU ADNS continuing to be undertaken. IPN Team, Performance Team, Informatics Team 30.6.19
		MSSA and E.coli hospital associated bacteraemia are reviewed by the IPN team to support mandatory surveillance requirements and if any lapses in care unidentified, a clinical incident will be submitted. The Insertion and Management of Central, PICC and peripheral lines protocol requires review against best practice and national guidance to support the MSSA reduction objective.	1. MSSA and E.coli hospital associated bacteraemia to be reviewed by IPN team as part of enhanced surveillance programme. 2. If lapses in care identified - Datix to be reported and investigated by Ward/CBU team as per clinical incident reporting systems. 3. Lessons learnt and completed actions from Datix to be reported to CBU IPCC and key themes escalated to Trust IPCC. 4. Review of Protocol for the insertion and management of Central Lines against best practice and National guidance; review of		IPN Team, ADNS CBU, Ongoing throughout 2019/20 IPN Team 30.11.19

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			practice compliance with above and training needs analysis completed.		
1.3.	**Activities to demonstrate that infection prevention and cleanliness are an integral part of quality assurance should include:**				
1.3.1	A review of mandatory and voluntary surveillance data, including antimicrobial resistance ,outbreaks and serious incidents;	ICNet Surveillance data base implemented during 2018/19. Now required development of surveillance systems utilising ICNet capabilities	Further training of IPN team to ensure full potential of ICNet surveillance systems implemented.		
1.4.	**The infection prevention including cleanliness annual programme should :**				
1.4.1	Set objectives that meet the needs of the organisation and ensure the safety of service users, health care workers and the public; identify priorities for action; provide evidence that relevant policies have been implemented; • report progress against the objectives of the programme in the DIPC's annual report	Annual programme is in place, but needs to reflect the gaps in assurance/compliance as identified through IPCC work plan evaluation.	Updated annual work programme and to be approved at July IPCC 2019.		Nurse Consultant IPC/ IPC team 30.7.19
1.5.	**An infection prevention infrastructure should encompass:**				

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1.5.1	Mechanisms are in place to ensure that sufficient resources are available to secure the effective prevention and control of infection. An infection prevention team consisting of an appropriate mix of both nursing and consultant medical expertise (with specialist training in infection prevention and cleanliness), 24-hour access to a nominated qualified infection control doctor (ICD) or consultant in health protection/ communicable disease control.	Infection Prevention Nursing Team with recognised qualifications, knowledge and experience is in place. ICD – Not established through ID Consultants. Protected PAs not established in work plan and specialist training for ID Consultants in Infection Control specialist areas uncertain (e.g. decontamination, water safety, ventilation, cleaning, food safety, asepsis national guidance or legislation)?? Loss of Infectious Diseases (ID) Consultant Team and only 1 substantive Consultant Microbiologist – additional locum in place (May – Aug 2019) Risk due to lack of Senior specialist Medical support to Infection Prevention and Control service.	**Review of MDT Service which makes up Infection Prevention and Control including Infectious Diseases:** Recruitment underway for ID Consultant/ Microbiologist posts. Development and presentation of paper outlining risks associated with loss of ID Consultant service and limited Consultant Microbiologist support to IP& C service. Recruitment of 2 Band 7 IPN to support mitigations for above risks identified in paper. Risk assessment to be completed outlining the above risks from paper.		DIPC/Medical Director /Nurse Consultant/Deputy Dir. Ops 30.8.19
1.6.	**Movement of service users**				
1.6.1	Provides suitable and sufficient information on a service user's infection status; · Movement of patients between wards/department and moved from the care of one organisation to another.	Good working relationship with Clinical Site Team. Risk assessment for sideroom prioritisation completed 2018/19 and revised posters distributed. Alert flagging system in place on EPR.	Liaise with Control Centre Team to develop systems to ensure appropriate isolation placement for patients with HCAIs and communicable infections. Discharge referral letter to GPs provided by IPN team – need to review and ensure the normal process for GP discharge letters includes HCAI information.		Nurse Consultant IPC Lead Nurse IPC 30.6.19
Criterion 2 : Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections					

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Standard required		Where we are now	What we need to do to meet the Standard Actions for 2019/2020	RAYG	Timescale & individual responsibility.
2.1	Designated leads for environmental cleaning	Cleaning reports submitted to IPCC - Cleaning committee with terms of reference set up during 2018/19	Cleaning Committee (sub-group of IPCC) to be further developed to ensure Matrons have engagement with the Cleaning committee and take an active role. Assurance reports to IPCC.		Assistant General Manager Facilities 30.6.19
	the storage, supply and provision of linen and laundry are appropriate for the level and type of care	Storage of linen often left on corridors and not properly covered. Protocol for laundry arrangements for the correct classification and sorting of used and infected linen is needed;	Improve removal of linen from corridors and review covers for linen transport. Develop protocol for the segregation and decontamination of linen		Assistant General Manager Facilities 30.7.19
	Heads of nursing, matrons and the IPT included in all aspects of cleaning services, from contract negotiation and service planning to delivery at ward and clinical level.	Cleaning audits are provided to Matrons and HON. Senior review spot-checks of standards of cleanliness required to ensure systems of assurance in place. Hygiene audits completed with IPT and Matrons.	Joint cleaning spot –checks to be introduced with IPN, Facilities and Matrons Hygiene audit programme continues with data reported on Meridian and compliance monitored through the IPCC. Bed discharge cleaning checklist to be developed as routine practice		Assistant General Manager Facilities 1.7.19 Matrons/ADNS 1.8.19
	All parts of the premises from which it provides care are suitable for the purpose, kept clean and maintained in good physical repair and condition;	Review of Trust–wide facilities which are relevant to HTM 03 01 Specialised ventilation for healthcare premises, to assess ventilation is fit for purpose, maintained and validated as per HTM requirements. . Governance arrangements for assurance	**Ventilation** 1. Task & Finish group established and risk prioritisation developed to support financial proposal to rectify ventilation risk areas in priority order.		Assistant Director Estates/ Nurse Consultant IP&C/ Deputy

		processes to support ventilation validation reports and escalation processes are needed to ensure patient safety. Risks identified for ventilation compliance and risks assessments completed. Escalation paper submitted to EMT. Water Safety Steering group TOR revised to support assurance processes for HTM 04 01: Safe water in healthcare premises, and provide robust governance systems through a formal quarterly report to the IPCC and subsequently the Patient Safety Sub Committee.	2. Risk assessments for all non- compliant ventilation to be reviewed and submitted to risk register 3. Any areas where ventilation does not meet HTM standards to be escalated promptly through CBU Leads 4. Ventilation Working Group TOR to be revised to support assurance processes for HTM 03 01 and provide robust governance systems through the IPCC and Patient Safety Sub Committee. **Water Safety:** Ensure water sample results, actions and recommendations communicated to relevant CBU Leads		Director Operations 1.7.19 / Nurse Consultant IP&C 31.7.19 Assistant Director Estates 30.6.19 and ongoing
	There is adequate provision of suitable hand washing facilities, isolation side rooms, bathrooms and toilets, bed spacing optimised and antimicrobial hand rubs where appropriate; to Comply With HBN Infection Control in the Built Environment.	Hand wash facilities are available in all patients and clinical areas but need review to ensure sink to bed ratio is appropriate and sinks at ward entrances is factored into any new builds or refurbishments. Alcohol gel is available at patient bed area; however wall mounted dispensers at ward entrances lack signage in many areas	Sink to bed ratio review to be completed. Paper and risk assessment to be completed outlining areas of non-compliance and submitted to IPCC for further Escalation to DIPC. Update of signage of alcohol gel at ward/department entrances to be implemented.		Assistant Dir Estates/Nurse Consultant IPC. 30.6.19 Procurement/ Facilities Team/ Estates Project Team/ IPN Team 30.9.19

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	The cleaning arrangements detail the standards of cleanliness required in each part of its premises and that a schedule of cleaning responsibility and frequency is available on request; Policies on the environment should take account of infection prevention team expert advice.	Cleaning Schedules under review and may require further review on publication of revised National Cleaning Standards. Continue Programme of policy review where review date is due for expiry or where new national guidance, best practice, lessons learnt from RCAs requires a policy development/review.	Review Cleaning Schedules and may require further review on publication of revised National Cleaning Standards. Continue Programme of policy review where review date is due for expiry or where new national guidance, best practice, lessons learnt from RCAs requires a policy development/review. Ensure cleaning audits shared with Matrons monthly and any actions arising.		Facilities Team/ Estates Team/ 30.7.19 and ongoing awaiting national cleaning standard publication
Criterion 3 : Ensure appropriate antimicrobial use to optimise patient outcomes and to reduce the risk of adverse events and antimicrobial resistance					
Standard required		**Where we are now**	**What we need to do to meet the Standard : Actions for 2019/2020**	**R A Y G**	**Timescale & individual responsibility.**
3.1	An antibiotic stewardship committee responsible for developing, implementing and monitoring the organisation's stewardship programme.	The Trust has an Antimicrobial Prescribing Review Group (APRG) which currently reports to Drug and therapeutics committee. Terms of reference do not currently explicitly use the terms antimicrobial stewardship. These TOR are more specifically about development of protocols and guidelines, although they include reference to monitoring prescribing	**Antimicrobial Stewardship Programme:** Review antimicrobial prescribing policy and amend TOR where necessary to make stewardship a key responsibility.		Consultant Microbiologist, ID Consultant Antibiotic Pharmacist 30.7.19

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	The IPCC committee should report antimicrobial stewardship activities to the Trust board via the organisation's Director of Infection Prevention and Control or equivalent.	Nothing currently reported beyond monthly prescribing compliance audits	Stewardship program to be drafted -		Lead pharmacist antimicrobial therapy – 30.7.19
	Adherence to prescribing guidance and compliance with in hospital post-prescribing review at 48-72 hours should be monitored and audited on a regular basis, with data fed back to prescribers and incorporated into patient safety reporting systems to Boards	Nothing currently reported beyond monthly prescribing compliance audit	Lead Pharmacist antimicrobial therapy to compile draft stewardship program for approval To be presented to IPCC meeting OR for approval at APRG meeting		Lead pharmacist antimicrobial therapy – 30.8.19
3.2	Report local antimicrobial susceptibility data (drug-bug combinations) and information on antimicrobial consumption to the national surveillance body. Surveillance information should be used by the stewardship committee to monitor local	This data regarding susceptibility data is likely to be reported by the pathology labs (the Joint Venture Service now) directly to the microbiologists/ID consultants for reporting to the National Surveillance body (not confirmed)	Confirm with microbiologists/ID team that susceptibility data is shared with surveillance body		Chief Pharmacist/Antimicrobial Pharmacist 31.8. 2019 completed
		Consumption data is reported quarterly to PHE as part of a CQUIN	(see Criterion 3.1)		

	resistance patterns and guide local prescribing policy.	Local surveillance information is used by .APRG when prescribing protocols are updates.			
		Resistance patterns are not discussed explicitly however the ID/micro team use their current knowledge to inform as guidelines are updated	No additional action data is reported. No Action needed- information already used appropriately		ID/Microbiology Team & Antimicrobial Management Group 30.9.19
		AMS audits currently not available and AMS report to IPCsC not available.	Review terms of reference for AMS group and resources to support AMS audits/reports to IPCC		
Criterion 4 : Provide suitable accurate information on infections to service users, their visitors and any person concerned with providing further support for nursing/medical care in a timely fashion					
Standard required		**Where we are now**	**What we need to do to meet the Standard : Actions for 2019/2020**	**R A Y G**	**Timescale & individual responsibility.**
4.1	Areas relevant to the provision of information include: • general principles on the prevention of infection incl. roles and responsibilities of carers, relatives and advocates • the importance of appropriate use of antimicrobials; • compliance by visitors with	Patient information leaflets are available on the Trust external webpage including: Reducing risk of Infection, MRSA and Clostridium difficile.	Develop a specific patient hand hygiene leaflet and implement patient hand hygiene QI programme		IPN Team/Nurse Consultant 30.7.19
		No specific patient hand hygiene leaflet available.			

	hand hygiene; • reporting concerns relating to hygiene and cleanliness including hand hygiene • explanations of incident/outbreak management				
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					
Standard required		**Where we are now** Ensure that advice is received from IP practitioners and should inform their local health protection team of any outbreaks or serious incidents relating to infection in a timely manner.	**What we need to do to meet the Standard: Actions for 2019/2020**	**R** **A** **Y** **G**	**Timescale & individual responsibility.**
5.1	Ensure that advice is received from IP practitioners and should inform their local health protection team of any outbreaks or serious incidents relating to infection in a timely manner.	Outbreak policy in place. PHE represented on IPCC. Infection Control Policy provides roles and responsibilities outlined for all healthcare staff. Outbreak and SI reports submitted to IPCC.	1. Outbreak policy in place – to be reviewed to ensure EPRR resilience in place and corresponds to West Yorkshire outbreak plans. To work with EPRR office. 2. Review Outbreak policy to ensure new management structures are incorporated		Nurse Consultant 30.9.19
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. **(Refer to 1.1.2 above)**					

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Criterion 7: Provide or secure adequate isolation facilities					
Standard required		**Where we are now**	**What we need to do to meet the Standard : Actions for 2019/2020**	**R A Y G**	**Timescale & individual responsibility.**
7.1	Provide, or secure the provision of, adequate isolation facilities, as appropriate, sufficient to prevent or minimise the spread of infection.	Limited isolation facilities – need to improve prioritisation for sideroom allocation with new Command Centre and Clinical Site Team. Policy for Isolation in place and Priority protocol for isolation side rooms is in place using RAG rating. New Command Centre in development – need to liaise with development Leads to ensure RA for sideroom allocation included.	Survey of Facilities – sink: bed ratio, bathroom/toilet: bed ratio for nightingale design wards and bed spacing. Review risk register for risk associated with side room availability. Work with Command Centre Team to implement Isolation request and ensure robust audit to support compliance.		Estates dept. July 2019 IPN team/Nurse Consultant IPC Command Centre Team IPN Team 30.10.19
Criterion 8: Secure adequate access to laboratory support as appropriate					
Standard required		**Where we are now**	**What we need to do to meet the Standard : Actions for 2019/2020**	**R A Y G**	**Timescale & individual responsibility.**

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8.1	Ensure that laboratories that are used to provide a microbiology service, in connection with arrangements for infection prevention (including cleanliness), have in place appropriate protocols. These laboratories should operate according to the standards required by the relevant national accreditation bodies.	MRSA, CPE screening taking on average 4 days to report with some taking up to 10 days (incident reported on Datix). Issues with lab reports sent without full details of sensitivities or full microbiology decision. I.e. not stating MRSA,CPE etc	Datix submitted on any lab reporting issues and discussion at Microbiology Seniors meetings Clinical Incidents to be completed for any significant microbiology issues and liaise with Microbiology Senior Team to support improvement programme		ID/Microbiology team with Senior Microbiology Team (Joint Venture) 31.8.19
8.2	Protocols should include: a microbiology laboratory policy for investigation and surveillance of antimicrobial resistance and HCAIs; standard laboratory operating procedures for the examination of specimens and timely reporting	Transcription errors with Microbiology reports – wrong organism/wrong patient (reported on Datix) Lab protocols held by Airedale laboratories – unsure of compliance	Meetings with Airedale Microbiology service requested.		
Criterion 9: Have and adhere to policies, designed for the individual's care and provider organisations					
Standard required		**Where we are now**	**What we need to do to meet the Standard : Actions for 2019/2020**	**R** **A** **Y** **G**	**Timescale & individual responsibility.**

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9.1	All relevant policies should have regular review and revision programme with ratification at IPCC and are available on the Trust Intranet	Rolling programme of policies review and revision programme with ratification at IPCC and are available on the Trust Intranet Standards Precautions policy to be reviewed to ensure compliance with National Policy	1. Continue Programme of policy review where review date is due for expiry or where new national guidance, best practice, lessons learnt from RCAs requires a policy development/review. 2. Standards Precautions policy reviewed to ensure compliance with National Policy 3. Develop new protocol as assessment and diagnosis aid for urinary tract infection to support NICE QS90 and CQUIN 2019		Nurse Consultant/ IPN team Ongoing as required throughout year.
Criterion 10: Providers have a system in place to manage the occupational health needs and obligations of staff in relation to infection					
Standard required		**Where we are now**	**What we need to do to meet the Standard : Actions for 2019/2020**	R A Y G	**Timescale & individual responsibility.**
10.1	All staff can access occupational health services;	Policies are in place and receive regular review. Staff Immunisation programme is in place and exceptions reported to IPCC (i.e. shortages of vaccine). Decisions on offering immunisation are made on a local risk assessment as described 'The Green Book'	To review and implement revised BCG vaccination programme for Healthcare staff at risk from TB at BTHFT following discussion at IPCC May 19. BCG records to be updated		Occupational Health Manager –

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