



GIG
CYMRU
NHS
WALES

Bwrdd Iechyd Prifysgol
Bae Abertawe
Swansea Bay University
Health Board



Meeting Date	20 June 2019	Agenda Item	3.1
Report Title	Infection control update 1 April 2018-31 March 2019		
Report Author	Lisa Hinton, Assistant Director of Nursing Infection Prevention and Control		
Report Sponsor	Lisa Hinton, Assistant Director of Nursing Infection Prevention and Control		
Presented by	Gareth Howells. Director of Nursing and Patient Experience		
Freedom of Information	Open		
Purpose of the Report	<p>This contents of this report were presented on 30th April 2019 to the Health Board's Infection Prevention & Control Committee, which is a sub-group of the Quality & Safety Committee. This is an assurance report provides an end of year update on prevalence, progress and actions for healthcare associated infections (HCAIs) within the former ABMU Health Board for the financial year 2018/19 to 31st March 2019.</p> <p>Additionally, the report includes concerns identified by the Infection Prevention & Control Committee that require escalation to the Quality & Safety Committee. Namely:</p> <ul style="list-style-type: none"> • The lack of Microbiology support within Primary Care & Community Services Delivery Unit. • The lack of Occupational Health resources available across the Health Board for annual health checks for at risk staff groups. 		
Key Issues	<ul style="list-style-type: none"> • Despite significant improvements in infection rates, ABMU did not achieve reductions in infection rates under targeted intervention. • The challenges in relation to staffing within the infection control team however recruitment is underway for a substantive matron within the team. • No UVc cleaning within Singleton or Neath Port Talbot hospitals and the requirement for HPV cleaning across all sites. • Over occupancy and staffing in clinical areas with a lack of decant facilities having an impact on the ability to further reduce rates of infection. 		

	<ul style="list-style-type: none"> Compliance with training requirements remains low and increases in training for level one infection control training are required across all staff groups. 			
Specific Action Required <i>(please choose one only)</i>	Information	Discussion	Assurance	Approval
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Recommendations	The Health Board is asked to: <ul style="list-style-type: none"> Note reported progress against healthcare associated infection reduction priorities up to 31st March 2019. Note the healthcare associated infection concerns escalated from the Infection Prevention & Control Committee to the Quality & Safety. 			

Infection Control Update Report 1 April 2018-31 March 2019

1. SITUATION

1.1 Purpose

To provide an update on prevalence, progress and actions for HCAs within ABMU for the financial year 2018/19.

1.2 Key issues

- Despite significant improvements in infection rates, ABMU did not achieve reductions in infection rates under targeted intervention.
- The challenges in relation to staffing within the infection control team however recruitment is underway for a substantive matron within the team.
- No UVc cleaning within Singleton or Neath Port Talbot hospitals and the requirement for HPV cleaning across all sites.
- Over occupancy and staffing in clinical areas with a lack of decant facilities having an impact on the ability to further reduce rates of infection.
- Compliance with training requirements remains low and increases in training for level one infection control training are required across all staff groups.

1.3 Escalation from Infection Control Committee April 2019

- The lack of Microbiology support within Primary Care & Community Services Delivery Unit.
- The lack of Occupational Health resources available across the Health Board for annual health checks for at risk staff groups.

2. BACKGROUND

ABMU are under targeted intervention for HCAs as they have one of the highest rates of infection within Wales. The Health Board has committed to achieving the following infection reduction priorities within its Annual Plan 2018/19:

- | | |
|------------------------------------|---|
| • Clostridium difficile infection: | 15% reduction against the 2017/18 position; |
| • Staph. aureus bacteraemia: | 10% reduction against the 2017/18 position; |
| • E. coli bacteraemia: | 5% reduction against the 2017/18 position. |

Considerable improvements have been made to reduce the rates of HCAs however reductions in infection rates as a result of interventions is shown over a period of months and not immediately.

The Health Board continues to face significant challenges due to current demands on services and capacity alongside known pressures during the winter from infections such as influenza and Norovirus placing delivery units under additional pressure.

The estate and lack of isolation facilities make managing patients with known or suspected infections a challenge which is impacted during periods of escalation.

3. ASSESSMENT

3.1 HCAs

Significant progress has been made in reducing rates of HCAs however the Health Board have not achieved the reduction targets. A breakdown of cases can be seen in table 1. Appendix 1 shows the HCAI update report.

Table 1.

Measures	WG National Target for NHS Wales	IMTP Profile March	March 2019 (to 31/03/19)	Total number of cases YTD (to 31/03/19)	Number of cases above or below trajectory
<i>Clostridium difficile</i>	136 cases (max.) 26/100,000 pop.	21	8	179	60 ↓
<i>Staph. aureus</i> bacteraemia	105 cases (max.) 20/100,000 pop.	15	11	186	4 ↑
<i>E. coli</i> bacteraemia	352 cases (max.) 67/100,000 pop.	42	43	506	2 ↑

3.2 Key achievements

- Successful implementation of Co-amoxiclav restriction within secondary care. The restriction of this antibiotic, which is associated with a high risk of *Clostridium difficile* infection, has been a significant factor in achieving a >30% reduction in this infection compared with 2017/18 position.
- The revised environmental reactive and pro-active cleaning programme, with the focus on a '4D' programme: **D**eclutter, **D**ecant, **D**eep-clean and **D**isinfect, was implemented from 18th February.
- The re-introduction of Ultra-violet C (UV-C) environmental decontamination technology in Morriston, following a 2 year period of non-use. Domestic Services staff who operate this equipment currently report no concerns with its use. Operator competence and confidence will be reviewed after 3 months and 6 months of use, with annual retraining and competence assessment. On this basis, the UV-C Task & Finish Group met on 26th March and agreed to conclude its work on UV-C.

3.3 Actions

- Although there is variation in progress towards reduction in bacteraemia, all Delivery Units need to have a sustained focus on improvement activities to reduce bacteraemia. In particular, Singleton and Princess of Wales hospitals have seen an increase in bacteraemia cases. For Princess of Wales, this information will be handed over to the Infection Prevention & Control service lead in Cwm Taf Morgannwg UHB.
- Primary Care antimicrobial guidelines are in the process of being reviewed, with the aim of reducing the use of Co-amoxiclav. However, there are limited oral antibiotic alternatives for Co-amoxiclav, and as such, the impact of reviewing Primary Care guidelines on the number of *Clostridium difficile* infections is likely to be limited.
- Medical engagement in infection improvement programmes will need to be sustained.
- High occupancy (>85%), and over-occupancy (>100%) is associated with significant increased risk of infection transmission. In addition, this impedes the ability to effectively clean and decontaminate the healthcare care environment.
- The lack of decant facilities on acute sites continues to be a barrier to achieving an efficient and effective deep clean. The Infection Prevention & Control Committee strongly supports the case for decant facilities on hospital sites.
- The Task & Finish Group that was set up to oversee the reintroduction of Ultraviolet-C (UV-C) environmental decontamination will change its focus in the next financial year to review Hydrogen Peroxide Vapour (HPV) technology for environmental decontamination. Caveat: the operation of both UV-C and HPV is possible only in an unoccupied room. The lack of decant facilities will impede efforts to decontaminate care environments effectively.
- PDSA style quality improvement activities with a focus on invasive devices continue across acute sites.
- The Infection Prevention & Control Team will support clinical areas with higher risk of bacteraemia due to the presence of invasive devices, or regular venous access, to develop improvement driver diagrams that are specific to their activities to reduce the incidence of infection. This work will continue into the new Financial Year.

3.4 Decontamination

- The All Wales Endoscopy Decontamination Survey report should be received by the end of April. Each Delivery Unit has commenced progress against their respective action plans. Notable progress in the following areas has been made:
 - Meetings have taken place to discuss the move to an automated process for Nasendoscope decontamination for Ward T and SDMU in Morriston hospital and the ENT department in Neath Port Talbot Hospital.

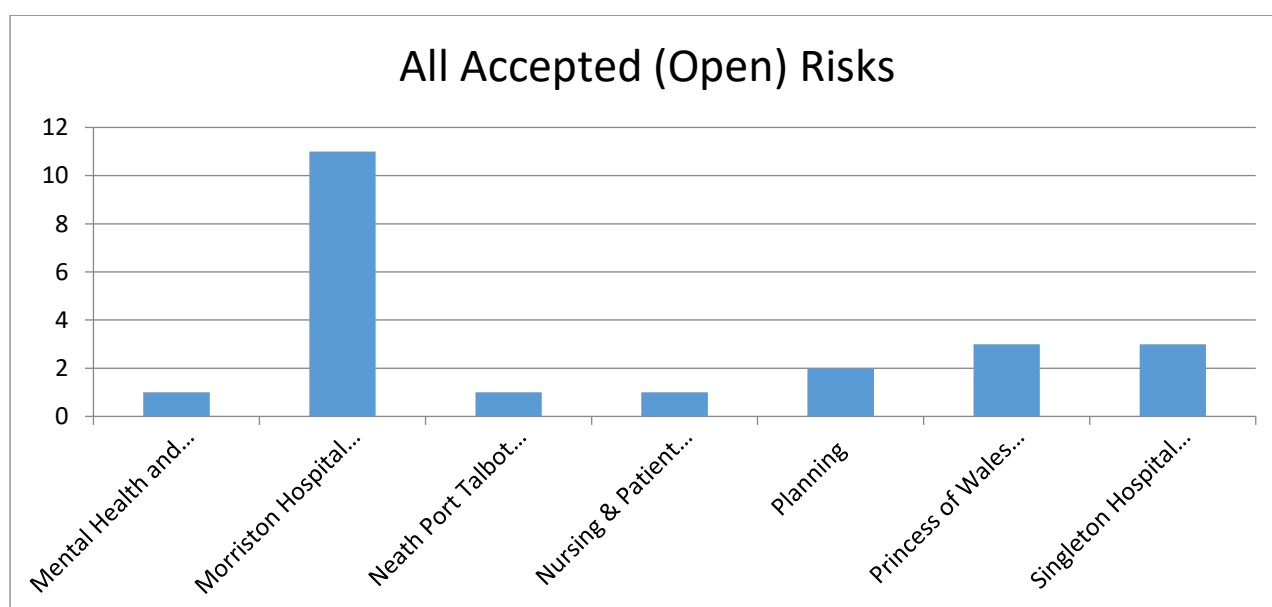
- A new drying cabinet has been received by HSDU in Morriston Hospital. This will be up and running shortly and replace the current storage in the theatre department.
- The remaining washer disinfectors in Morriston theatres will be decommissioned at the end of the month. All scope decontamination will then take place in HSDU.
- Singleton Radiology Department have recommenced use of Hydrogen Peroxide gas disinfectors (Trophons) for the decontamination of Ultra-sound probes.
- A capital bid has been put forward to purchase a SureStore® vacuum pack system for Singleton HSDU. If successful, this will replace the requirement for a new drying cabinet to be installed within Singleton theatres.
- Singleton Delivery Unit held its inaugural, site-based decontamination meeting. This was productive and many actions were progressed. This meeting will report into the Health Board's Decontamination Sub Group.

Actions

- Morriston Delivery Unit to nominate an Operational Decontamination Lead, responsible for establishing the Morriston Decontamination meetings. This group would monitor progress against Morriston's Decontamination Action Plan. This group also would report into the Health Board's Decontamination Sub Group.

3.5 Risks, outbreaks and untoward incidents

There are currently 22 accepted risks relating to infection control on the risk register. These can be seen below:



There are 5 new risks for approval at this committee.

During March 2019 there was 1 outbreaks across the Health Board. These can be seen below:

Delivery Unit	Pii	D&V	Flu	Other
Mental Health		1		

3.6 Training

Infection Prevention and Control - Level 1 - 3 Yearly to 31 March 19

Staff Group	Compliance %
Add Prof Scientific and Technic	86.06%
Additional Clinical Services	81.97%
Administrative and Clerical	72.36%
Allied Health Professionals	85.98%
Estates and Ancillary	62.02%
Healthcare Scientists	79.67%
Medical and Dental	29.03%
Nursing and Midwifery Registered	82.48%

4 GOVERNANCE AND RISK ISSUES

Healthcare associated infections are associated with poor patient outcomes, and are significant quality and safety issues. Continuing failure to achieve the infection reduction improvements is an unacceptable position for our patients, for the Health Board and Welsh Government and is likely to be a consideration in a decision to escalate to Special Measures.

5 FINANCIAL IMPLICATIONS

A Department of Health impact assessment report (IA No. 5014, 20/12/2010) stated that the best estimate of costs to the NHS associated with a case of *Clostridium difficile* infection is approximately **£10,000**. The estimated cost to the NHS of treating an individual cost of MRSA bacteraemia is **£7,000** (the cost of MSSA bacteraemia could be less due to the availability of a wider choice of antibiotics). In an NHS Improvement indicative tool, the estimated cost of an *E. coli* bacteraemia is between **£1,100** and **£1,400**, depending on whether the *E. coli* is antimicrobial resistant. (*Trust and CCG level impact of E.coli BSIs* accessed online at:

<https://improvement.nhs.uk/resources/preventing-gram-negative-bloodstream-infections/>).

Using these estimates, and the number of cases of these infections within the Health Board in 2019/20 (from 1 April 2019 to 31st March 2019), the estimated financial impact of these healthcare associated infections is shown in Appendix 2.

6 RECOMMENDATION

The Quality & Safety Committee is asked to note the contents of this assurance report.

Governance and Assurance		
Link to Enabling Objectives (please choose)	Supporting better health and wellbeing by actively promoting and empowering people to live well in resilient communities	
	Partnerships for Improving Health and Wellbeing	<input type="checkbox"/>
	Co-Production and Health Literacy	<input type="checkbox"/>
	Digitally Enabled Health and Wellbeing	<input type="checkbox"/>
	Deliver better care through excellent health and care services achieving the outcomes that matter most to people	
	Best Value Outcomes and High Quality Care	<input checked="" type="checkbox"/>
	Partnerships for Care	<input type="checkbox"/>
	Excellent Staff	<input type="checkbox"/>
	Digitally Enabled Care	<input type="checkbox"/>
	Outstanding Research, Innovation, Education and Learning	<input type="checkbox"/>
Health and Care Standards		
(please choose)	Staying Healthy	<input type="checkbox"/>
	Safe Care	<input checked="" type="checkbox"/>
	Effective Care	<input type="checkbox"/>
	Dignified Care	<input type="checkbox"/>
	Timely Care	<input type="checkbox"/>
	Individual Care	<input type="checkbox"/>
	Staff and Resources	<input type="checkbox"/>
Quality, Safety and Patient Experience		
Effective infection prevention and control needs to be everybody's business and must be part of everyday healthcare practice and be based on the best available evidence so that people are protected from preventable healthcare associated infections.		
Financial Implications		
<p>Cost per case of:</p> <p><i>Clostridium difficile</i> infection - approximately £10,000;</p> <p><i>Staph. aureus</i> bacteraemia - up to 7,000;</p> <p><i>E. coli</i> bacteraemia – between £1,100 (antibiotic sensitive strains) and £1,400 (antibiotic resistant strains).</p> <p>Cumulative costs from 1st April to 31st March 2019 for all three organism is approximately £3,794,300.</p> <p>Ongoing costs associated with contracted HPV services (e.g. Bioquell) for high-level environmental decontamination.</p> <p>Cost associated with Local Laboratory testing for Influenza (Public Health Wales will confirm).</p>		
Legal Implications (including equality and diversity assessment)		
Potential litigation in relation to avoidable healthcare associated infection.		
Staffing Implications		
None identified.		
Long Term Implications (including the impact of the Well-being of Future Generations (Wales) Act 2015)		
A healthier Wales: preventing infections		
Report History	Previous meeting 18 th April 2019	
Appendices	Appendix 1 – Health Board and Service Delivery Unit Monthly Performance. Appendix 2: HCAI – Financial Impact to 31 st March 2019	