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Bae Abertawe
Swansea Bay University
Health Board



Meeting Date	29 March 2022	Agenda Item	3.1	
Report Title	Healthcare Acquired Infections Update Report			
Report Author	Delyth Davies, Head of Nursing, Infection Prevention & Control			
Report Sponsor	Gareth Howells, Executive Director of Nursing & Patient Experience			
Presented by	Delyth Davies, Head of Nursing, Infection Prevention & Control			
Freedom of Information	Open			
Purpose of the Report	This is an assurance report that provides an update on prevalence, progress and actions for healthcare associated infections (HCAIs) within Swansea Bay University Health Board for the reporting period.			
Key Issues	<ul style="list-style-type: none">•The Improvement Plan for Infection Prevention & Control was presented to the Management Board on 9th March 2002 and approved in principle, with a small number of amendments for the next iteration. The paper and first iteration of the Improvement Plan is in Appendix 1. The aim is to create a guiding coalition of responsible clinical leaders (not just nursing staff) at all levels in the organisation who see the intrinsic benefits and reduction in harm from infection.• The Health Board continues to have amongst the highest incidence of infection for the majority of the Tier 1 key infections.• The Omicron variant of COVID-19 within acute inpatient settings remains a challenge, with continuing evidence of transmission events. The consequences to disruption of services are significant.• Adherence to best practice in infection prevention and control (IPC) precautions is critical. Service Groups must focus on achieving compliance with staff training in this area and on auditing compliance. This is critical in relation to all nosocomial infections; COVID-19 has heightened awareness of the importance of IPC, and all staff must maintain vigilance going forward.• The Infection Prevention & Control team resource is acutely impacted by vacancies and sickness. There has been a suspension of the 7-day service since the end of December as there are not enough staff to cover the rota. Face-to-face training has been suspended temporarily. The service can be reactive only currently, and much of its focus is on supporting Board-wide services in responding to COVID.			
Specific Action Required	Information	Discussion	Assurance	Approval
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Recommendations	Members are asked to: Note reported progress against HCAI priorities to the end of February 2022 and agree actions.			

Infection Prevention and Control Report

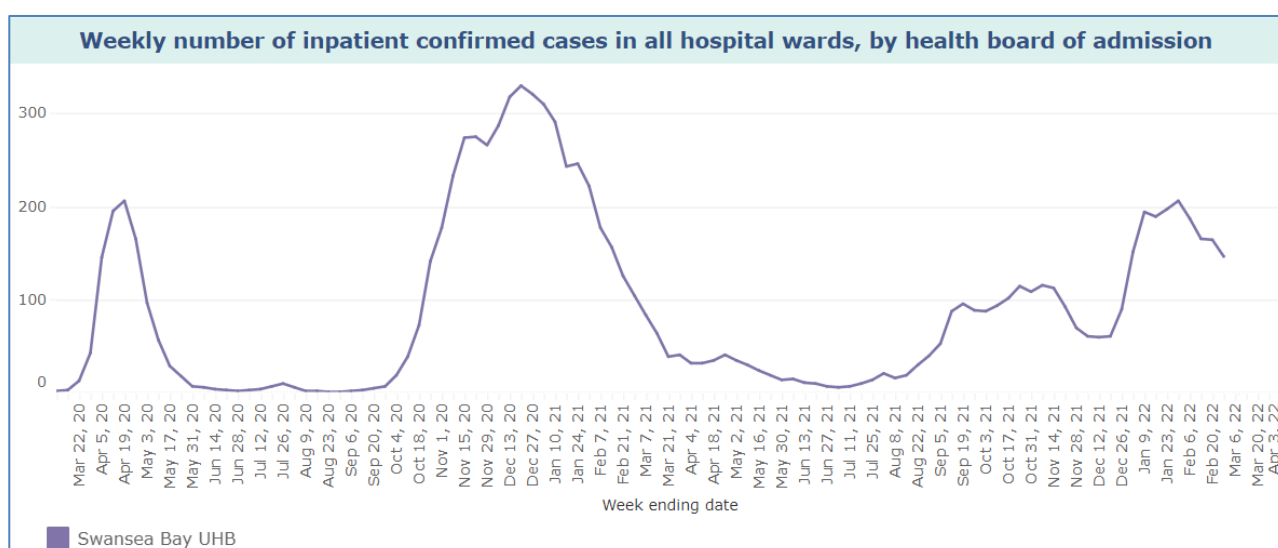
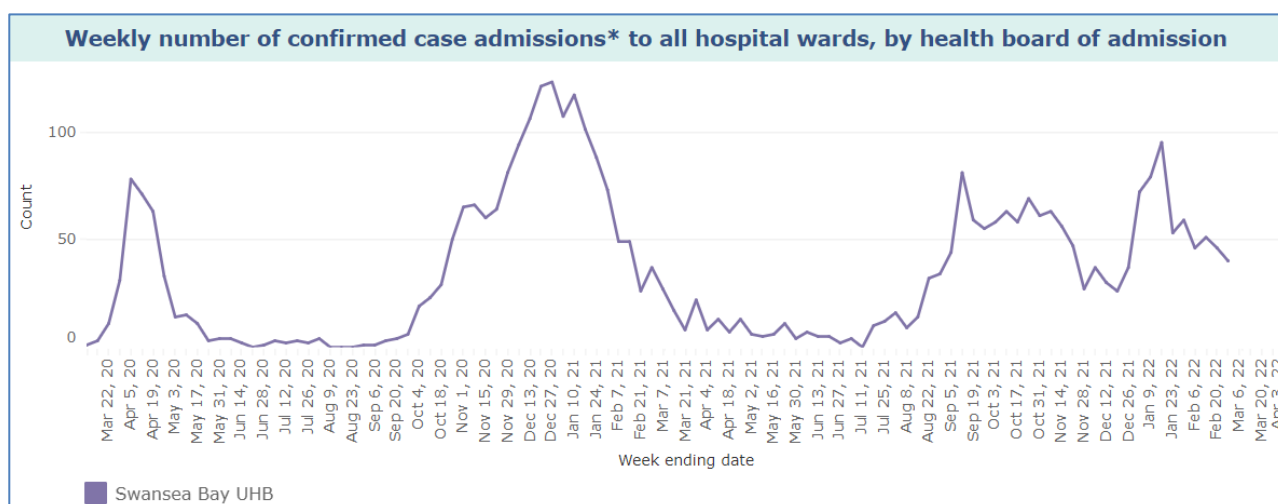
		Agenda Item	
Freedom of Information Status		Open	
Performance Area	Healthcare Acquired Infections Update Report		
Author	Joanne Walters, Matron, Quality Improvement, Infection Prevention & Control.		
Lead Executive Director	Gareth Howells, Executive Director of Nursing & Patient Experience		
Reporting Period	28 February 2022		

Summary of Current Position

The Health Board has continued with its response to COVID-19 (SARS 2) pandemic.

COVID-19 (SARS 2):

- From 01 April 2020 to end of February 2022; there have been over 105,799 positive cases of COVID-19 (an increase of approximately 4,100 in one month) from over 577,846 testing episodes (an increase of approximately 13,900 tests in one month).
- The charts below show the weekly number of laboratory confirmed COVID-19 cases admitted to SBUHB hospitals, and the number of confirmed cases in our hospitals. These charts highlight the impact of the second wave of the pandemic.



- In February, the outbreaks in Anglesey Ward, Cardigan Ward, TAU, Ward A, Ward R, Ward T, Ward V, Cardigan Ward Caswell Clinic, Mother and Baby Unit and NPTH Ward F concluded.
- In February, there have been continuing and new localised outbreaks of COVID-19 in the following areas:
 - **Morriston** – **Ward D/ AMAU** (17 patients/ 10 staff), **Ward C** (11 patients/ 3 staff), **Ward J** (28 patients/ 17 staff), **Gowers Ward** (17 patients/ 4 staff), **Ward G** (13 patients/ 10 staff), **SDMU** (2 patients/ 2 staff), **Ward H** (4 patients/ 1 staff), **RAU** (7 patients/ no staff), **Ward B** (3 patient/ no staff) and **Ward S** (2 patients/ 1 staff).
 - **Singleton & NPT** – **Ward 3** (7 patients/ 3 staff) and **Ward C** (12 patients/ 6 staff).
 - **Mental Health & Learning Disabilities** – **Tonna Hospital** (16 patients/ 5 staff) and **Llwyneryr Unit** (2 patients/ 4 staff).
 - **Primary Care & Community** – **Gorseinon West Ward** (9 patients/ 4 staff).
- The Omicron variant is reported to be the dominant circulating strain across the Health Board. Due to its high transmissibility it continues to have an impact on community outbreaks during February. The Omicron variant has also continued to cause ward outbreaks across the Health Board. Unscheduled care patients, initially testing negative on day 1 of admission, are testing positive shortly after and in the majority of patients who were exposed to these initially undetected patients (who were in the incubation period), subsequently have become positive. Staff absence remains high, much of this being linked with community acquisition rather than exposure at work. The degree of staff shortages is likely to affect adversely infection risks.

COVID-19 Vaccination update

- A total of 305,284 first dose vaccines, and 286,749 second dose vaccinations, have been administered within the priority groups to the end of February 2022. There had been 7,353 third dose vaccinations administered by the end of February 2022 and a total of 224,670 Booster doses administered.
- To the end of February 2022, 16,660 SBUHB staff had received the first dose, and 16,432 staff had received the second dose of either one of the available COVID-19 vaccines; the breakdown is shown in the following table.

Job Role Category	Cohort total	Total First Vaccination	Total Second Vaccination	% Vaccinated (1st Dose)	% Vaccinated (2 Doses)
Additional Clinical Services	165	149	146	90.30%	97.99%
Additional Prof Scientific and Technical	24	21	21	87.50%	100.00%
Administrative and Clerical	245	237	236	96.73%	99.58%
Allied Health Professionals	176	173	171	98.30%	98.84%
Estates and Ancillary	67	62	60	92.54%	96.77%
Healthcare Scientists	31	30	29	96.77%	96.67%
Medical and Dental	440	421	415	95.68%	98.57%
Nursing & Midwifery Registered	510	503	497	98.63%	98.81%
Other	1015	1009	999	99.41%	99.01%
Student	369	368	361	99.73%	98.10%
Unknown	14518	13687	13497	94.28%	98.61%
Total	17560	16660	16432	94.87%	98.63%

- Third dose and booster dose COVID vaccination programmes continues.
- The Immunisation Lead and Immunisation Coordinators remain supportive of the COVID vaccination programme. The next training block for non-registrants will be allocated to volunteers from the St. Johns Ambulance Service. This being a first for the Health Board. The Immunisation Co-ordinator leading the training has received extremely positive feedback for these training sessions.
- Work with the specialist vaccine allergy clinic continues, however, the Immunisation Co-ordinator will not be operationally supporting the clinics in view of other work demands and priorities. This has now been passed over to the COVID vaccination team, however, the Immunisation Co-ordinator will continue to arrange these clinics and be present at the allergy referral meetings. The priority must now be to focus on increasing uptake of the MMR vaccine, and the Immunisation team will progress work to data cleanse in the first instance, prior to offering catch up vaccinations.
- The Immunisation team are involved in the planning of the vaccination of non-at-risk 5-11-year-old children; which is due to commence at the end of March 2022.
- Governance visits at the Mass Vaccination Centres will be a focus of our work going forward following some DATIX incidents in relation to errors at the sites. Therefore, governance and assurance will feature heavily in our work plans over the forthcoming months.
- The IPCT continue to support the delivery of relevant training to both registrants and non-registrant vaccinators for the delivery of the mass vaccination programmes.

Flu Planning 2021/22

- Welsh Government target for influenza vaccination of staff is 85%. To the end of February 2022, approximately 53% of staff had been vaccinated; approximately 53% of front-line staff had been vaccinated. The table below shows the percentage details by staff group –

Staff Group	Vaccinated %	Not Vaccinated %	Vaccinated	Not Vaccinated	Grand Total	Number of Doses to Target
Add Prof Scientific and Technic	65.99%	34.01%	262	135	397	36
Additional Clinical Services	50.04%	49.96%	1377	1375	2752	687
Administrative and Clerical	52.80%	47.20%	1385	1238	2623	582
Allied Health Professionals	58.62%	41.38%	561	396	957	157
Estates and Ancillary	46.95%	53.05%	585	661	1246	350
Healthcare Scientists	59.82%	40.18%	198	133	331	50
Medical and Dental	54.23%	45.77%	513	433	946	197
Nursing and Midwifery Registered	53.40%	46.60%	2136	1864	4000	864
Grand Total	52.97%	47.03%	7019	6233	13252	2920
Front Line Staff Totals	53.58%	46.42%	4850	4202	9052	1939

- A review of the staff flu vaccination programme is pending. Uptake rates currently stand at 53%, which is our lowest uptake over the last few flu seasons. The specialist Immunisation team are keen to lead on the staff flu campaign for the forthcoming season, especially in view of the need to plan to co-administer with the flu vaccine for 2022-23. Additional Staff Flu Vaccination clinics are being offered to encourage further uptake by HB staff.
- The Immunisation team will be planning a BCG immunisation 1-day course in the near future. We are aware there are only a small number of staff who are competent to administer this vaccine to our paediatric and adult groups, as the technique to administer this intra-dermal vaccine is very different to other vaccinations. This will enable us to build a resilient, competent service going forward. This would be a new training programme for the Health Board.
- In order to facilitate the above work plans, a substantive Immunisation Team is needed, which is separate to the COVID Immunisation Team.

Decontamination Update

Progress continues to strengthen the governance of decontamination processes across the Health Board-

- The review and update of local standard operating procedures is 81% complete. The review of the remaining areas is currently in progress and are expected to be submitted to the next Decontamination Quality Priority Group in April.
- Assurance audits continue throughout the Health Board, with 83% of the areas audited since April 2021. The Operational Decontamination Lead and Decontamination Co-ordinator are supporting departments with their improvement plans.
- Training compliance continues to be monitored locally through individual performance review. A request has been made to the Service Groups for compliance figures for each department to be reported into the Decontamination Quality Priority Group.
- The review and update of departments' contingency plans, to ensure service delivery in the event of testing and machinery failure are in progress with 77% of areas being completed. The remaining plans are currently being worked on and are due for submission at the next Decontamination Quality Priority Group in April.
- Following the rollout of the Ultrasound Decontamination Policy, which sets the standards services should be working to, the Singleton Breast Clinic have introduced high level disinfection processes for their interventional procedures. This is a positive step forward which has not only improved standards for patients, but has also eliminated the variations in practices across the two breast clinics within the Health Board.
- The Endoscopy Unit in Morriston Hospital has recently undergone both internal and external audits in readiness for their application for JAG accreditation at the end of March. The audits provided a high level of assurance in both decontamination and infection control elements.

Tier 1 Infections 2021/22

The tables below show Health Board progress against the Welsh Government HCAI Improvement Goals for 2021-22, published in WHC (2021) 028 to the end of February 2022; the year-on-year cumulative comparison is shown also.

Infection	Cumulative cases Apr 2021- Feb 2022	February 2022 Cases	Cases +/- Monthly WG Expectation	WG Monthly Expectation
<i>C. difficile</i>	178	13	+5	< 8 cases
<i>Staph aureus</i> BSI	128	9	+3	< 6 cases
<i>E. coli</i> BSI	267	25	+4	< 21 cases
<i>Klebsiella</i> BSI	87	4	- 2	< 6 cases
<i>Ps. aeruginosa</i> BSI	22	3	+1	< 2 cases

Infection	2020/21 total to 28/02/21	Comparison 2021/22 Total to 28/02/22
<i>C. difficile</i>	148	178 (20% ↑)
<i>Staph aureus</i> BSI	111	128 (15% ↑)
<i>E. coli</i> BSI	213	267 (25% ↑)
<i>Klebsiella</i> BSI	92	87 (-5% ↓)
<i>Ps. aeruginosa</i> BSI	18	22 (22% ↑)

The incidence (per 100,000 population) of the majority of the key Tier 1 infections in Swansea Bay University Health Board is amongst the highest in Wales for *C. difficile*, *Staph. aureus* bacteraemia and *Klebsiella* bacteraemia. This is not an acceptable position.

To provide context to the position in Wales, during the eleven months of the financial year, NHS Wales has seen an average increase in all Tier 1 infections as shown below (with the range of increases across various Health Boards shown in brackets):

- *C. difficile*: +25% (range +4% to +65%);
- *Staph. aureus* bacteraemia: +7% (range -15% to +31%);
- *E.coli* bacteraemia: +16% (range 0% to +28%);
- *Klebsiella spp.* bacteraemia: +2% (range -18% to +24%);
- *Pseudomonas aeruginosa* bacteraemia: +25% (range +7% to +47%)

In the Health Board, the incidence of *C. difficile* is above the infection reduction monthly goals. The cumulative rate of increase, year-on-year, is 20%. Of the 178 cases, 31% were community-acquired and 69% were hospital-acquired.

The cumulative incidence of *Staph. aureus* bacteraemia remains above the infection reduction average monthly goals. There has been a 15% increase in the cumulative total cases year-on-year. Hospital acquired infection (HAI) continues to account for 66% of all cases; 34% were community acquired infections (CAI). In the majority of HAI cases, the source was line-associated; in the majority of CAI cases, the source was skin and soft tissue.

The cumulative incidence of *E. coli* bacteraemia has increased by 24% year-on-year. In SBUHB, approximately 66% of the cases in April to February 2022 were community-acquired infections; 34% were considered hospital acquired. Of the community-acquired cases, the urinary tract was considered to be the source of infection in approximately 45% of cases, and the hepato-biliary tract

considered the source in approximately 23% of cases. Of the hospital-acquired cases, 34% were considered to have a urinary source; 18% a hepato-biliary tract source, 15% considered to have the intestinal tract source and the remainder being unknown source determined.

58% of *Klebsiella spp.* bacteraemia cases between April and February 2022 were hospital-acquired cases; 42% were community-acquired. Of the hospital-acquired cases, 28% of the case were considered to have a urinary source, 20% were considered to have a respiratory source; and 16% a hepato-biliary tract source. Of the community-acquired cases, 50% were considered to have a urinary source; 25% a hepato-biliary tract source.

The attribution of cases of *Pseudomonas aeruginosa* bacteraemia between April and February 2022 were considered to be 68% hospital-acquired and 32% community-acquired. Sources of infection, where identified, were urinary, skin & soft tissue, abdominal, and hepato-biliary tract.

The third wave of the COVID-19 pandemic continues; the effect of the Omicron variant has exacerbated an already challenging position. This, in addition to the escalation of service pressures, including the difficulty posed by discharging patients in to the community and ongoing impact of increasing staff shortages, is increasing safety risks for patients, including risks associated with healthcare-associated infections.

Other significant infection incidents/outbreaks:

Heterogeneous glycopeptide intermediate resistant *Staph. aureus* (hGISA) in Renal Unit

To date, there have been no further cases of hGISA associated with the Renal Unit. Surveillance continues to identify additional cases. Findings from environmental screening has highlighted that reusable patient equipment (e.g. oxygen saturation finger sensor), that is difficult to clean effectively between uses, may have been a contributory factor for transmission between patients. Provision of single patient use equipment is being advised to mitigate this identified risk.

Glycopeptide Resistant *Enterococcus faecium* (GRE) in Trauma and Orthopaedics.

Public Health Wales Consultant Nurses have visited Morriston to review the patient pathways. A formal peer review report has been received and shared with the Morriston Service group. The investigation is continuing into the cases of surgical site infection caused by this GRE. Inpatient screening has detected additional colonised cases, whole genome sequencing data from all available isolates is being reviewed to establish if there are links between patients.

Achievements

- Introductory meetings between Executive Medical Director, Director of Nursing and Service Group Directors have taken place to established monthly meetings with the Service Group Directors in order to review IPC issues, feedback on outcomes of post-infection reviews, and discuss planned actions will be received at the monthly meetings going forward.
- An IP&C Improvement plan (see Appendix 1), based on “HCAI - State of the Nation” paper has been presented and accepted by Management Board on March 9th. Additional actions as discussed within the meeting will be added to the next iteration of the plan. This will include a communication launch, benchmarking with other organisations and restructuring the Service Group IP&C support.
- The aim of the Improvement Plan is to create a guiding coalition of responsible clinical leaders (not just nursing staff) at all levels in the organisation who see the intrinsic benefits and reduction in harm from infection. The Management Board agreed to approve the infection prevention improvement plan, and specifically:

- meet the required reduction trajectories for all Tier 1 infections;
- ensure clinical leadership at all levels;
- utilise evidence, and best practice;
- employ improvement methodology and measurement;
- support the revised focus of the IP&C team;
- ensure that on all occasions clinical leaders review infection prevention never events and ensure the required actions are initiated and maintained to prevent a re-occurrence.
- support the appointment of a SBUHB Director of Infection, Prevention and Control

Challenges, Risks and Mitigation

- The Immunisation Team comprises one substantive Immunisation and Vaccination Lead for the Health Board, one full-time temporary secondment Band 7 Immunisation Coordinator, and one part-time fixed term contract Band 7. Funding has been agreed to extend the secondment and the fixed-term contract to September 2022. The Infection Prevention & Control team will take on this substantive post so that the secondment may continue without an adverse impact on the Immunisation team.
- The IP&C team reduced resource has resulted in a temporary suspension of the 7-day service, as there are insufficient staff to cover the rota.
- There is not a large pool of qualified and experienced Infection Prevention & Control Nurses nationally, and experience is that it may be a challenge to recruit the level of experience required for this Health Board, its complexities and the challenges it faces. Additionally, there are Band 6 and 7 Infection Prevention & Control posts being advertised currently by other organisations in Wales. Competition for these posts is high.
- The Infection Prevention & Control Team resource is currently stretched across the Health Board and has a 133.5-hour vacancy. A Senior Band 7 IPC Practitioner is will leave the Health Board to take up a post with Public Health Wales' Healthcare Associated Infection Programme team at the end of March. This post will be going out to recruitment. The Band 7 Senior IPC Practitioner based in Morriston & currently on maternity leave will be covered by a 12-month secondment as a Band 6 IPC Practitioner. This secondment post is back out to advert; as there were no sufficient applications received previously. Interviews for a substantive Band 6 IPC Practitioner post are due to take place in March 2022 and pending completion of recruitment assurances, a band 6 IPC Practitioner is expected to soon commence in post. There is a Band 3 HCSW (0.6 wte) vacancy out to advert, interviews for the Full time position which is currently covered by a seconded staff member are taking place next week.
- The IP&C Team has to prioritise its focus, currently dealing with the impact of COVID on wards and within community facilities. Some Face-to-face training has recommenced. The team hopes to maintain its focus on surveillance of infections of significance, such as *C. difficile* and extremely antibiotic-resistant organisms. The team continues to support Service Groups in their efforts to safely manage and mitigate risks and to review HCA cases. There is also a plan to undertake targeted improvement work by reviewing the incidence of invasive devices such as urinary catheters and vascular access devices, to provide education that will ensure appropriate, aseptic sample collection and encourage removal of invasive devices at the earliest opportunity.
- The Health Board is not achieving the infection reduction goals expected by Welsh Government. Tackling and reducing the source infections that require antibiotic treatment and, or develop onto more significant infections such as blood stream infections & *Clostridium difficile* is key to achieving reductions in the Tier 1 targets and antimicrobial resistance (AMR). Service Groups

must take ownership of driving improvements to reduce these infections, and ensure adherence to local and national IPC Policies and procedures in all areas.

- Gaps in knowledge around hospital acquired infections and adherence to IP&C standards including Aseptic Non touch technique exist within the workforce and need to be addressed. Collaboration with the University is taking place to align education and competency assessment criteria.
- Ongoing service pressures on acute sites and a lack of dedicated decant facility prevents the reactive and proactive decant of clinical areas affected by periods of increased incidence of *C. difficile*. Consequently, it has not been possible to undertake the level of 4D cleaning that is the standard within the Health Board. This particularly affects risks associated with those infections caused by extremely antibiotic-resistant infections and by *C. difficile*.
- Current pressures on Health Board services, both in the community and in hospitals, is extreme, as are the pressures on providing social care packages. The results of these pressures are that numbers of medically fit for discharge patients have increased, which results in increased length of stay for many patients. The demand for unscheduled acute care remains, leading to increased demand for inpatient beds. Surge capacity is being utilised on all inpatient sites. The increasing inpatient population occurs at a time of increased staff shortages, which an increasing patient-to-staff ratio.
- COVID-19 cases within acute inpatient settings remains a challenge, with continuing evidence of transmission events. The consequences to disruption of services are significant.
- Bed spacing and ventilation within the majority of wards in inpatient settings poses an ongoing risk in relation to transmission of COVID-19 and other seasonal viral infections, including influenza, Respiratory Syncytial Virus, parainfluenza, and Norovirus. The risk assessment in relation to bed spacing has been completed and measures to mitigate risk have been implemented. The risk assessment in relation to ventilation risks will be undertaken by Estates colleagues, with recommendations made on measures to mitigate risk in the short-, medium- and long-term. Air purifiers are being piloted by a number of Health Boards in order to mitigate risk in the short term. Two have been purchased for use within the critical care unit of Morriston. All such equipment will need to be approved by the Health Board Ventilation Group.
- Historically, infection reduction initiatives have been compromised by the following: staffing vacancies, or shortages caused by sickness absence, with reliance on temporary staff; over-occupancy because of increased activity; use of pre-emptive beds; and increased activity such that it is not possible to decant bays to clean effectively patient areas where there have been infections.

Action Being Taken (what, by when, by who and expected impact)

Monitor implementation and progress against Infection Prevention & Control Improvement Plan – This will be an ongoing process, monitored in Service Group Performance Reviews, also through Service Group Infection Control Committees and the Health Board Infection Control Committee.

Tier 1 infections

- **Action:** Executive Medical Director and Director of Nursing established monthly meetings with Service Group Directors to set the scene around a review IPC issues, to receive feedback on outcomes of post-infection reviews, and discuss planned actions. Target date: Quarter 4, 2021/22. Impact: Improved governance and accountability at Service Group level.

Immunisation & Vaccination

- **Action:** Further revision and clarification of the business case for a sustainable Vaccination & Immunisation Service to improve the uptake of vaccinations against Influenza and other preventable communicable diseases. **Target completion date:** provisional outcome anticipated by **31/03/22**. **Lead:** Matron Immunisation, Vaccination & Assistant Director of Nursing. **Impact:** Reducing preventable communicable disease.

Development of ward dashboards key infections (HCAI Quality Priority, 100 Day Plan)

Working with Digital intelligence to identify specification for the infection dashboard.

- **QP Action:** In collaboration with Digital Intelligence team, establish the data feed from LIMS, quality control and verify the accuracy of the data accessed. **Target completion date:** slippage due to COVID pressures to **31/03/22**. **Lead:** Head of Nursing Infection Prevention & Control, and Business Intelligence Information Manager. **Impact:** enable oversight of key indicators at Ward, Specialty, and Delivery Unit and Board level to enable early intervention and improve patient safety.

Achieve compliance with Infection Prevention-related training (HCAI Quality Priority, 100 Day Plan)

- **Action:** Service Groups to develop improvement plans for IPC training compliance. **Target completion date:** This is dependent on ESR functionality. **Lead:** Learning & Development Team. **Impact:** Improve reliability of data on compliance with IPC training for all Service Group staff.

Drive Improvements in Prudent Antimicrobial prescribing (HCAI Quality Priority 6 & 7, 100 Day Plan)

Antimicrobial initiatives – Secondary Care

- **Action:** Education and training sessions to highlight the changes in the secondary care antimicrobial guidelines to minimise use of broad-spectrum antibiotics. Sessions delivered in all acute sites within forums, with good clinician attendance. Pharmacist sessions in progress and will be completed by month end. **Target Completion Date:** Quarter 4, 2021/22. **Lead:** Consultant Antimicrobial Pharmacist. **Impact:** Decrease prescribing of broad-spectrum antibiotics that are high risk for *C. difficile* and antibiotic resistance.

Antimicrobial initiatives – Primary Care

- **Action:** Cluster-based antibiotic quality improvement projects in Afan and City Health Clusters continue to progress. Focus on UTI, skin, and soft tissue infections, including long-term antibiotics. Improvements in UTI prescribing observed in the first GP surgeries targeted and learning is being evaluated and spread. PDSA cycles, 2 underway focusing on long-term antibiotics. **Target Completion Date:** Quarter 4, 2021/22. **Lead:** Antimicrobial Pharmacy team. **Impact:** Identify priority targets for QI interventions to improve compliance to guidelines and overall volumes of prescribing within the GP practice.

Antimicrobial initiatives – Health Board

- **Action:** A new Antimicrobial Stewardship Framework, governance structure and implementation plan has been agreed by the Clinical Outcome and Effectiveness Group. The Antimicrobial Stewardship Group has now been reconvened and will meet monthly. Clinician representatives from each Service Group have been identified and included in the membership. The group will commence work on implementation of the AMS framework. **Target completion date:** Quarter

4, 2021/22. **Lead:** Consultant Antimicrobial Pharmacist. **Impact:** Improve governance arrangements around antimicrobial stewardship with the health board and promote ownership and action at a service delivery group and cluster/speciality level.

Antimicrobial initiatives – Health Board

- **Action:** The Antimicrobial Stewardship Group will undertake a review of antibiotic prescribing data for the Health Board, including the agreed key prescribing indicators. Utilisation of e-prescribing data to enhance the current data will be investigated. The review will also include improving accessibility to antibiotic prescribing data via dashboards. A specification has been agreed with informatics and work on preparing the data is underway. **Target completion date:** Quarter 2, 2022/23. **Lead:** Consultant Antimicrobial Pharmacist. **Impact:** Achieve provision of clinically relevant prescribing data in a timely and accessible manner to all clinical staff, in order to drive improvements.

***Clostridioides difficile* infection**

- **Action:** Digital Intelligence are developing an electronic investigation tool to allow MDT input and improve scrutiny and identification of themes by HB *C. difficile* Scrutiny Panel. The electronic data collection tool is being piloted to investigate new cases of *C. difficile* infection identified in hospital. **Target completion date:** draft of first stage developed. Additional development required, and date extended to Quarter 4, 2021/22. **Lead:** Quality Improvement Matron IPC, Public Health Wales Infectious Diseases/Microbiology Consultant. **Impact:** More robust system to collate themes and shared learning to improve the focus of prevention and management initiatives, leading to a reduction in *C. difficile* infection.

Bacteraemia improvement

- **Action:** Morriston Service Group's Medical Director has established a Consultant-led bacteraemia group, with multi-disciplinary representation, including a Public Health Wales Microbiologist, to review investigations of significant bloodstream infections and share lessons learned. A digital investigation tool has been developed and is to be implemented. **Target completion date:** Quarter 1, 2022/23. **Lead:** Morriston Hospital Service Group Directors. **Impact:** timely review of cases, identification of themes, reduction in significant bloodstream infections and share methodologies across the Health Board.

Decant (Quality Priority - built environment for management and prevention of HCAI)

- **Action:** The feasibility including a decant facilities would enable work that is essential for reducing infection risks from respiratory infections, including COVID-19, improving mechanical ventilation in inpatient areas to standards set in national, and WHO, guidance documents. Decant facilities are essential for enabling upgrade inpatient areas to increase single room accommodation, to meet standards set in national Health Building Note guidance. **Target completion date:** included in Capital funding bid for 2022/23. **Lead:** Assistant Director of Strategy Capital, Assistant Director of Strategy Estates.

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 *Clostridioides 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. Estimated costs related to healthcare associated infections, from 01 April 2021 to the end of February 2022 is as follows: *C. difficile* - £1,780,000; *Staph. aureus* bacteraemia - £896,000; *E. coli* bacteraemia - £308,600; therefore, a total cost of **£2,984,600**.

Recommendations

Members are asked to:

- Note reported progress against HCAI priorities to the end of February 2022 and agree actions.