Meeting Date	**26 October 2021**	**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 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	• The Health Board continues to have the highest incidence of infection for the majority of the Tier 1 key infections. Further analysis has been undertaken to show comparison with other Welsh acute Health Boards (Appendix 1). • COVID-19 incidence in community and healthcare settings, and in social care, continues to impact significantly on service provision. • 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 Quality Priority programme for improving healthcare associated infection and antimicrobial stewardship continues and progress is detailed in the 100-Day Plan. • Scrutiny of periods of increased incidence of infection must be reviewed consistently, to ensure that lessons are learned, and mitigation measures implemented, driving improvements in infection reduction. • Lack of decant facilities compromises effectiveness of the '4D' cleaning/decontamination programme. Provision of decant facilities also would enable plans to upgrade mechanical ventilation and single room accommodation to standards set in national guidance. • The COVID-19 vaccination programmes are progressing well. • There has been continued progress in assurance relating to decontamination processes within the Health Board.		

Specific Action Required	**Information**	**Discussion**	**Assurance**	**Approval**
	☐	☐	☒	☐

Recommendations	Members are asked to: • Note reported progress against HCAI priorities up to 30 September 2021 and agree actions.

Infection Prevention and Control Report

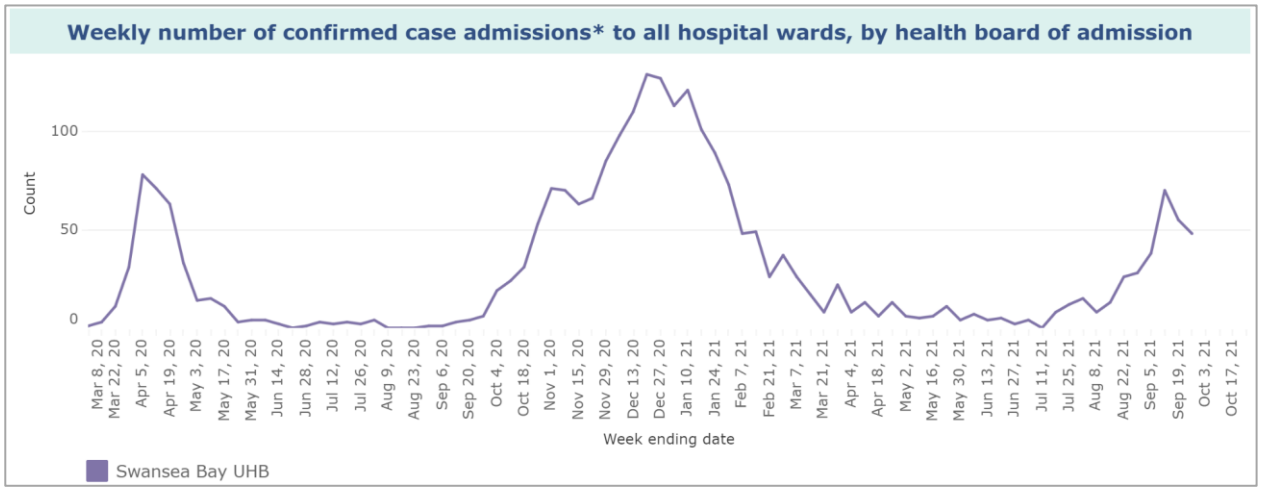
		Agenda Item	3.1
Freedom of Information Status		Open	
Performance Area	Healthcare Acquired Infections Update Report		
Author	Delyth Davies, Head of Nursing, Infection Prevention & Control		
Lead Executive Director	**Gareth Howells, Executive Director of Nursing & Patient Experience**		
Reporting Period	30 September 2021		

Summary of Current Position

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

COVID-19 (SARS 2):

- From 01 March 2020 to 30 September 2021: there have been over 51,000 positive cases of COVID-19 (SARS 2) from over 389,500 testing episodes.
- The chart below shows the weekly number of laboratory confirmed COVID-19 cases admitted to SBUHB hospitals, and highlights the impact of the second wave of the pandemic.



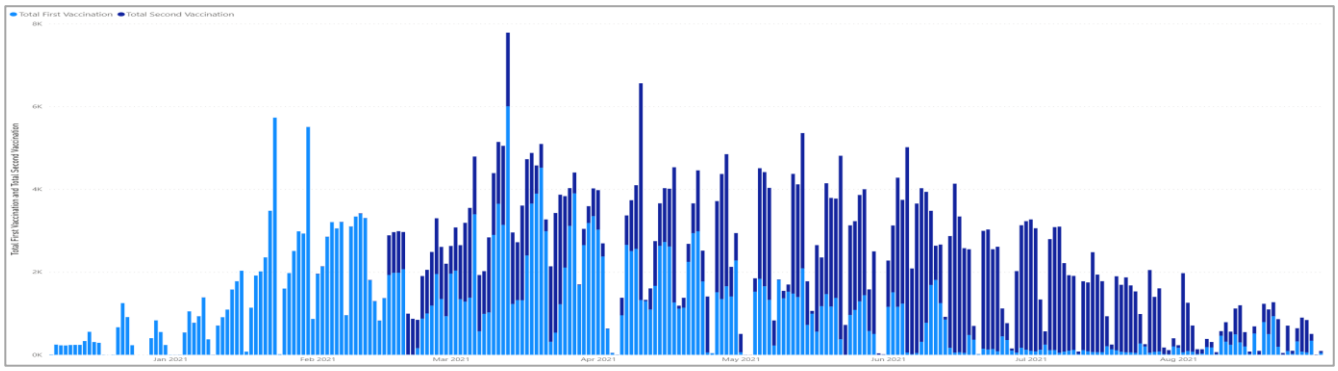
Source: Public Health Wales, to 09/09/21

- In September, the outbreak in Singleton Assessment Unit was closed, as was the cluster of cases in the staff group in Cancer Services.
- In September, there have been six localised outbreaks of COVID-19 in the following areas:
  - Morriston - Cardigan Ward (4 patients and 5 staff);
  - Learning Disability - Dan Y Deri (2 staff);
  - Mental Health - Ward F (3 patients and 4 staff), Rowan (2 patients and 2 staff), Newton Ward (1 patient and 2 staff);
  - Neath Port Talbot Hospital Ward E (5 patients and 1 staff).
- The incidence of COVID admissions decreased to the latter part of September.

COVID-19 Vaccination update

- A total of 287,829 first dose vaccines, and 266,897 second dose vaccinations, have been administered within the priority groups to the end of September 2021.

Vaccinations Given by Date



Source Power BI SBIHB Digital intelligence 09/09/21

- By 30 September 2021, the mobile unit 'Immbulance' had successfully delivered 2,179 first dose vaccinations, and 3,254 second dose vaccinations.
- To 30 September 2021, 16,237 SBUHB staff had received the first dose, and 15,889 staff had received the second dose of either one of the available COVID-19 vaccines; the breakdown is shown in the following table.

Vaccinations by Job Role, Frontline Status and Priority Group

Job Role Category	Cohort total	Total First Vaccination	Total Second Vaccination	% Vaccinated (1st Dose)	% Vaccinated (2 Doses)
Additional Clinical Services	**142**	**142**	**136**	**100.00%**	**95.77%**
Additional Prof Scientific and Technical	**20**	**20**	**20**	**100.00%**	**100.00%**
Administrative and Clerical	**226**	**226**	**222**	**100.00%**	**98.23%**
Allied Health Professionals	**160**	**160**	**159**	**100.00%**	**99.38%**
Estates and Ancillary	**60**	**60**	**58**	**100.00%**	**96.67%**
Healthcare Scientists	**29**	**29**	**29**	**100.00%**	**100.00%**
Medical and Dental	**398**	**398**	**387**	**100.00%**	**97.24%**
Nursing & Midwifery Registered	**483**	**483**	**469**	**100.00%**	**97.10%**
N	22	22	22	100.00%	100.00%
Y	461	461	447	100.00%	96.96%
Other	**997**	**997**	**980**	**100.00%**	**98.29%**
Student	**370**	**370**	**361**	**100.00%**	**97.57%**
Unknown	**13352**	**13352**	**13068**	**100.00%**	**97.87%**
Total	**16237**	**16237**	**15889**	**100.00%**	**97.86%**

- Following recommendations from the Joint Committee on Vaccination & Immunisation (JCVI), the COVID vaccination booster programme has commenced. The Health Board has deployed a mobile vaccination team to progress with vaccination of care home residents who are in the priority groups to receive their COVID booster programmes.
- JCVI has recommended individuals who are immunocompromised to receive a third primary dose, with a booster dose to be scheduled. Plans are underway to finalise the process with specialists for those receiving immunosuppressive treatment.
- In view of the decision to offer 12-15 year-olds COVID vaccines, plans are underway to offer appointments to all eligible children by the 1st November 2021. Appointments for this age group will be prioritised during the evening and weekends in view of school.
- Front line health board staff will be offered the flu vaccination at the same time as their COVID booster in view of the recommendations made by JCVI, which clearly states this is safe. However, some staff may wish to receive their flu vaccine at a separate appointment. Occupation Health are leading the staff flu campaign and, in line with previous years, clinics will be held at the hospital sites.
- The Immunisation team will begin training for non-registrant workforce to support administration of the COVID vaccinations from the 27th September 2021. The new Health Board staff immunisers will be in post until March 2022. The Immunisation team will also

support competency assessments at the Mass Vaccination Centres, working to the National Protocol.

- The team remain heavily involved in the COVID vaccination programme, and continue to oversee the allergy clinic for those needing their COVID vaccination in hospital. Training for Practice Nurses, District Nurses, Prison, school nursing teams has occurred in addition to staff flu peer vaccination training.

Flu Planning 2021/22

- Welsh Government have asked Health Boards and Primary care contractors to work closely in order to maximise uptake and achieve the 2021/22 ambitions as follows:

Eligible Group	2020-21 Uptake*	2021-22 ambition
65 years and over	76%	80%
6 months to 49 years at risk	51% (in 6 months to 64 years at risk)	75%
Pregnant	84%	90%
50 to 64 years (not in a clinical risk group)	25%	60%
Children aged 2 or 3 years	56%	75%
Primary school aged children	72%	80%
Children in school years 7 to 11	-	75%
NHS Wales Healthcare workers (direct patient/ client contact)	65%	80%
Social care workers (direct patient/client contact)	11,316* *no denominator available in 20/21	80%**

*Provisional data from Public Health Wales at March 2021

**in line with uptake of 2nd Covid-19 vaccine in this group

- This year, more people are eligible for flu vaccination r than ever before. Approximately 50,000 children in primary and secondary school across SBUHB will be offered the vaccination by the school nursing team.
- The Primary Care flu-planning group is focussing on improving uptake in the two- and three-year olds this year, which only saw a marginal increase in the 2020-21 flu season.

Decontamination Update

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

- A Health Board Standard Operating Protocol, which outlines best practice guidelines for the decontamination of ultrasound transducers and probes, has been developed and will be considered for approval by the Infection Control Committee on 11th October.
- There is a requirement for all members of staff involved with the use and subsequent decontamination of endoscopes to undergo annual refresher training. These refresher sessions had been postponed due to the COVID-19 pandemic. However, update training on the safe use, decontamination, handling and storage of endoscopes has been underway since March 2021, with a large number of staff across the Health Board receiving training.
- Interviews for the Band 6 Decontamination Co-ordinator post will be held on 21st October 2021.

Tier 1 Infections 2020/21

The Tier 1 infection reduction goals for 2021/22 have yet to be published. Until their publication, Health Board progress will be shown in comparison with the last published monthly targets (2019/20).

Infection	Cumulative cases Apr 2021-Sept. 2021	September 2021 Cases	Cases +/- Monthly WG Expectation	WG Monthly Expectation
C. difficile	104	14	+6	< 8 cases
Staph aureus BSI	75	17	+11	< 6 cases
E. coli BSI	169	21	≡	< 21 cases
Klebsiella BSI	48	11	+5	< 6 cases
Ps. aeruginosa BSI	11	2	≡	< 2 cases

Infection	2020/21 total to 30/09/20	Comparison 2021/22 Total to 30/09/21
C. difficile	99	104 (5% ↑)
Staph aureus BSI	60	75 (25% ↑)
E. coli BSI	125	169 (35% ↑)
Klebsiella BSI	41	48 (17% ↑)
Ps. aeruginosa BSI	11	11 (0% ≡)

The incidence (per 100,000 population) of the majority of the key Tier 1 infections in Swansea Bay University Health Board is the highest in Wales. This is not an acceptable position. All major Health Boards in Wales appear to be facing similar challenges.

To provide context to the position in Wales, during the first five months of the financial year, NHS Wales has seen an average increase in all Tier1 infections as shown below (with the range of increases across various Health Boards shown in brackets):

- *C. difficile*: +193% (range +3% to +102%);
- *Staph. aureus* bacteraemia: +13% (range -129% to +39%);
- *E.coli* bacteraemia: +18% (range +5% to +35%);
- *Klebsiella spp*. bacteraemia: +6% (range -258% to +43%); and
- *Pseudomonas aeruginosa* bacteraemia: +18% (range -6% to +78%).

Further analyses of performance against the Welsh Government HCAI improvement goals are shown in Appendix 1. Comparison of incidence per 100,000 population for each acute Health Board is shown in the charts and tables on pages 10 – 12 in Appendix 1, identifying ranking from 1 to 6 (lowest to highest incidence) of acute Health Boards. Comparison of incidence per 1000 admissions for each acute hospital in Wales is shown in the charts and tables on pages 13 – 17 of Appendix 1, including ranking from 1 to 18 (lowest to highest incidence) of acute hospitals. From the analysis of incidence per 1000 admissions, the performance of each acute hospital is variable in relation to each of the key Tier 1 infections.

The incidence of *C. difficile* is above the infection reduction monthly goals. The cumulative rate of increase, year-on-year, has slowed since July, when the increase was 17%. This has since reduced to a 5% increase by the end of September.

The incidence of *Staph. aureus* bacteraemia is above the infection reduction monthly goals. There has been a 25% increase in the cumulative total cases year-on-year. Hospital acquired infection (HAI) accounted for 56% of all cases; 44% 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, although in an equivalent proportion of cases, the source of infection was not identified

September 2021, a 35% increase in positive cultures has been reported compared with the same period in 2020. The incidence of *E. coli* bacteraemia has also continued to increase across NHS Wales. In SBUHB, approximately 66% of the cases in April to September 2021 were community-acquired infections; 34% were considered hospital acquired. Of these community-acquired cases, the urinary tract was considered the source of infection in approximately 48% of cases, and the hepato-biliary tract considered the source in approximately 22% of cases. Of the hospital-acquired cases, 32% were considered to have a urinary source; 25% a hepato-biliary tract source.

Fifty-four percent of *Klebsiella spp*. bacteraemia cases between April and September 2021 were hospital-acquired cases; 46% were community-acquired. Of the hospital-acquired cases, 23% were considered to have a respiratory source; 19% a hepato-biliary tract source; in 35%, the source was not identified. Of the community-acquired cases, 50% were considered to have a urinary source; 23% a hepato-biliary tract source.

The cases of *Pseudomonas aeruginosa* bacteraemia between April and September 2021 were considered 55% hospital-acquired and 45% 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 has commenced. This, in addition to the escalation of service pressures, and the incidence of other respiratory viruses, and Norovirus, which are expected to increase during winter, is likely to lead to a challenge for the Health Board to achieve and sustain reductions in healthcare-associated infections.

Achievements

- The IPC service continues to provide support, advice and training to clinical and non-clinical staff across all Health Board services in all issues relating to COVID-19 and other infections. The IPC team continues to emphasise to staff the need for sustained vigilance.
- The Nosocomial Transmission Silver Group continued to meet during the second wave of COVID-19, and continues to review risks and mitigation.
- The care home IPCN project aims to establish a programme of work for infection and prevention control (IPC) support to care homes within the Health Board boundaries, which will enable better sharing of issues, problem-solving, best practise and learning for all the various partners involved in infection prevention and control for care homes, including the care homes themselves.

Challenges, Risks and Mitigation

- The Immunisation Team comprises one substantive Immunisation and Vaccination Lead for the Health Board, and one temporary secondment Band 7 Immunisation Coordinator. This secondment has been extended until 31st December 2021. The business case to expand the Immunisation Team is in the final stages of review before submission to the Board.
- The Health Board is not achieving the infection reduction goals expected by Welsh Government.
- There has been a reduction in the level of scrutiny of hospital acquired cases, and Periods of Increased Incidence (PII), of *C. diffi*cile by Morriston Service Group. The IPCT continues to offer its support to the Service Group to participate in investigations of these periods of increased incidence. The Service Group has not held the number of PII review meetings that would have been expected. This gap may be as a result of activity and service pressures on this acute site. Reinvigorating the level of scrutiny for these incidents must be a priority for the Service Group, to learn lessons and drive improvement.

- Service pressures on acute sites have precluded the 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.
- 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. In addition, the number of COVID-19 admissions has been increasing, leading to provision of increased COVID beds across sites, particularly in Morriston. When such pressures exist within a healthcare system, patient safety risks are likely to increase, and this includes infection risks.
- COVID-19 cases within acute inpatient settings remains a challenge in maintaining compliance with PPE use.
- Clinical areas report concerns regarding patients leaving wards to meet with relatives & visitors in corridors and communal areas of the hospitals. This continues to be a risk for introducing COVID-19 infection into wards.
- 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.
- COVID-19 continues to circulate within the Community. Symptoms may be minimal or absent in the doubly vaccinated population who may continue to be sources of infection to others, including within the hospital environment. The potential consequences to disruption of services is likely to be significant.
- Frequent movement of patients within the hospital settings Increases infection risks. Pressures on inpatient capacity historically has increased the movement of patients between wards in the attempt to maintain patient flow and service provision for unscheduled care.
- Historically, infection reduction initiatives have been compromised by the following: staffing vacancies, 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)

Maintain infection Prevention & Control Support for COVID-19

- **Action:** Continue to provide support and advice in relation to COVID-19 for clinical and non-clinical staff across the Health Board. **This will be ongoing throughout the third wave, which has commenced. Lead:** Head of Nursing IP&C. **Impact:** Safe practices to protect the health of patients, staff and wider public.

Immunisation & vaccination.

- Action to develop a business case for a sustainable Vaccination & Immunisation Service to improve the uptake of vaccinations against Influenza and other preventable communicable diseases. **Target completion date** set back to **31/11/21. 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, identify the specification for infection information acquisition from Laboratory information System. **Target completion date: 31/10/21. 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 compliance with IPC training for all Service Group staff.

Recruitment of key personnel to support delivery of Decontamination and AMR improvement programmes (HCAI Quality Priority, 100 Day Plan) – dependent on confirmation of resources and recruitment processes.

- **Action:** Appointment of Band 6 for Decontamination. **Target completion date:** set back to 30.11.21; interviews being held on 21.10.21. **Lead:** Operational Decontamination Lead IP&C. **Impact:** Support programmes for ensuring robust processes for decontamination of medical devices, with appropriate governance framework.
- **Action:** Resourcing for General Practitioner sessions dedicated to antimicrobial stewardship improvement. **Target completion date: 31/10/21**. **Lead:** Medical Director Primary Care and Community. **Impact:** Drive forward antimicrobial stewardship improvement programmes in Primary Care, and improve compliance with key antimicrobial stewardship indicators.

Drive Improvements in Prudent Antimicrobial prescribing *(HCAI Quality Priority, 100 Day Plan)*

Antimicrobial initiatives – Primary Care

- **Action:** Series of cluster-based antibiotic-focused GP prescribing leads sessions underway. Antibiotic prescribing data will be discussed in detail with each practice and an action plan agreed by each practice. Educational content will focus on management of self-limiting infections this winter, promoting self-care and delayed prescriptions whenever clinically appropriate. **Target Completion Date**: Quarter 3 2021. **Lead:** Antimicrobial Pharmacy team. **Impact:** Decrease overall volume of prescribing in primary care through increased education and awareness around management of self-limiting conditions amongst clinicians.
- **Action:** Baseline audits underway for cluster-based antibiotic quality improvement projects in Afan and City Health Clusters. Focus on urinary tract infection (UTI), and skin and soft tissue infections. **Target completion date:** Quarter 3. **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:** The Clinical Outcome and Effectiveness Group has agreed a new Antimicrobial Stewardship Framework and governance structure. This includes recruitment of a new clinician chair for the health board antimicrobial stewardship group. An implementation plan will now be drafted and agreed in the next COEG meeting. **Target completion date:** Quarter 4 2021/22**. 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.

***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. **Target**

completion date: draft of first stage developed. Additional development required, and date extended to 30/11/21. **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. **Target completion date:** group meeting dates set through 2021/22. **Lead:** Morriston Hospital Service Group Directors. **Impact:** reduction in significant bloodstream infections and share methodologies across the Health Board.

Domestic staff recruitment

- **Action:** Recruitment process for additional cleaning staff progressing. **Target completion date:** Recruitment is ongoing process to meet possible shortfalls that occur through vacancies caused by retirement or staff leaving for alternative job opportunities. **Lead:** Support services manager. **Impact:** Increased domestic staffing to provide cleaning hours required.

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:** *currently deferred due to COVID and service pressures.* **Lead:** Assistant Director of Strategy Capital, Assistant Director of Strategy Estates.

Financial Implications

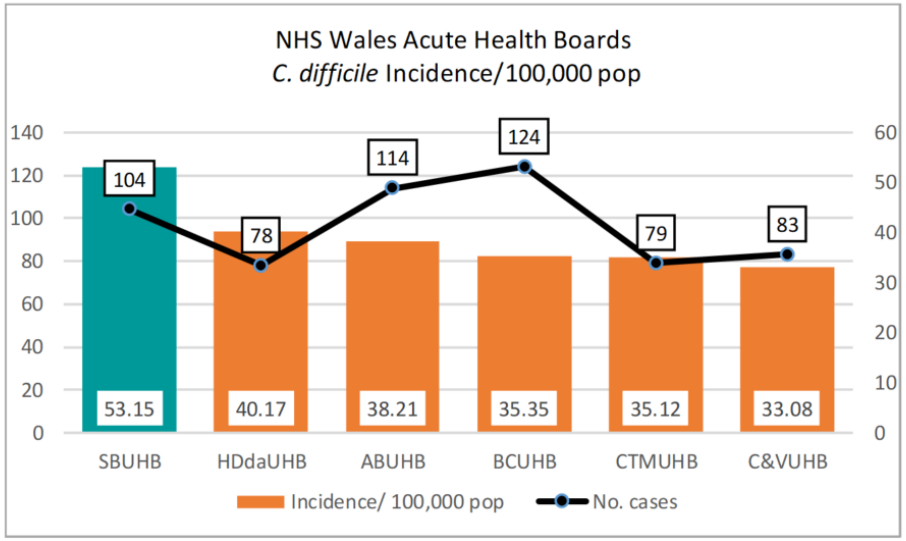
A Department of Health impact assessment report (IA No. 5014, 20/12/2010) stated that the best estimate of costs to the NHS associated with a case of *Clostridioides difficile* infection is approximately **£10,000**. The estimated cost to the NHS of treating an individual cost of MRSA bacteraemia is **£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 – 30 September 2021 is as follows: *C. difficile* - £1,040,000; *Staph. aureus* bacteraemia - £525,000; *E. coli* bacteraemia - £198,800; therefore a total cost of **£1,763,800**.

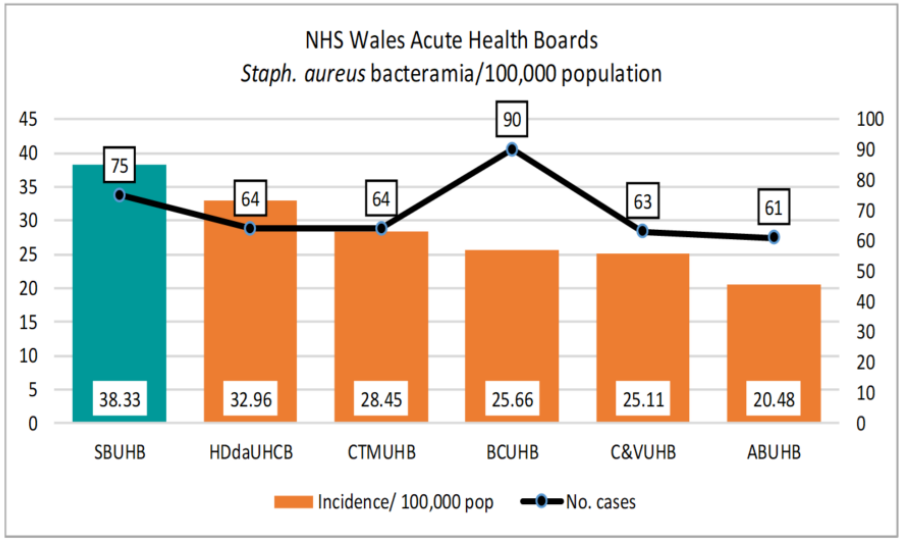
Recommendations

Members are asked to:

- Note reported progress against HCAI priorities up to 30 September 2021 and agree actions.

Tier 1 Infections in NHS Wales Acute Health Boards, Cumulative incidence/100,000 population, Apr-Sep 2021





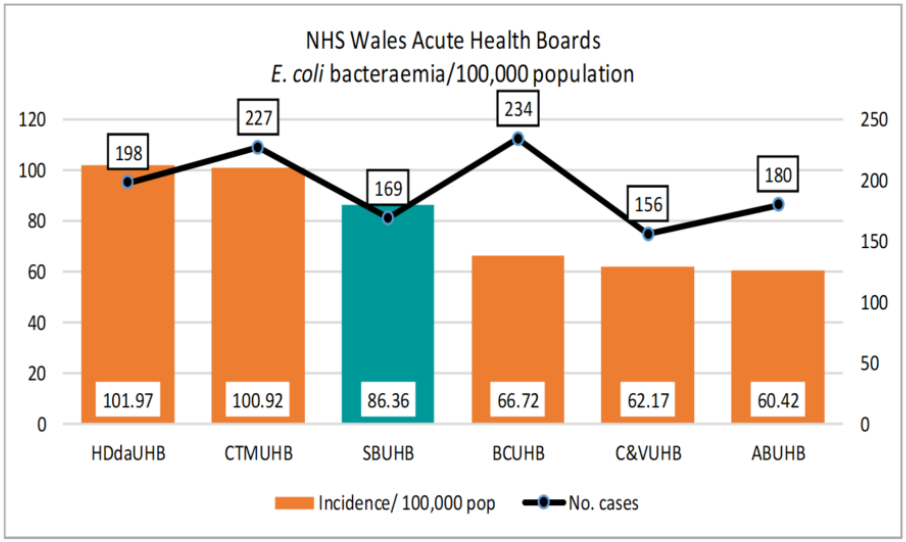
C. difficile

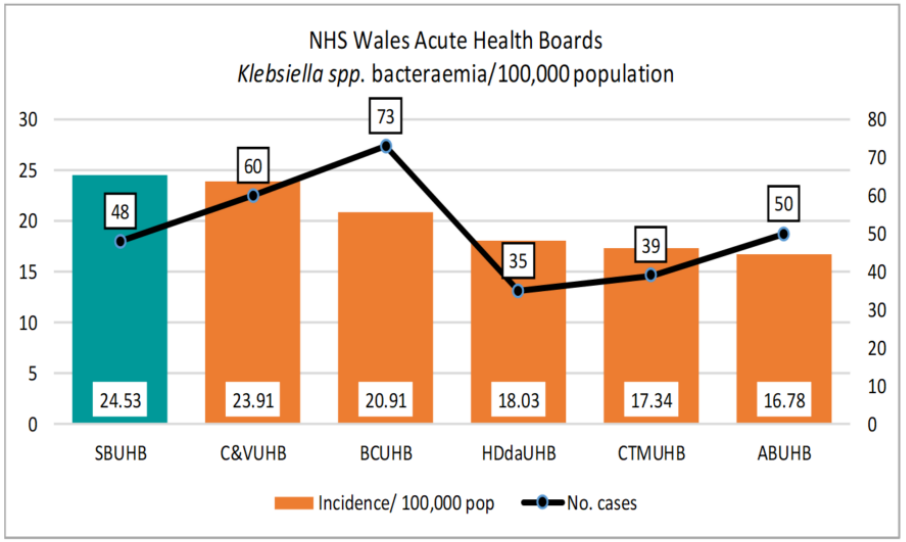
	No. cases	Incidence/ 100,000 pop	% Yr-onYr comparison	Rank in NHS Wales
SBUHB	104	53.15	5%	6
HDdaUHB	78	40.17	7%	5
ABUHB	114	38.21	41%	4
BCUHB	124	35.35	3%	3
CTMUHB	79	35.12	7%	2
C&VUHB	83	33.08	102%	1

***Staph. aureus* Bacteraemia**

	No. cases	Incidence/ 100,000 pop	% Yr-onYr comparison	Rank in NHS Wales
SBUHB	75	38.33	25%	6
HDdaUHCB	64	32.96	39%	5
CTMUHB	64	28.45	21%	4
BCUHB	90	25.66	22%	3
C&VUHB	63	25.11	-3%	2
ABUHB	61	20.48	-12%	1

Tier 1 Infections in NHS Wales Acute Health Boards, Cumulative incidence/100,000 population, Apr-Sep 2021





***E. coli* Bacteraemia**

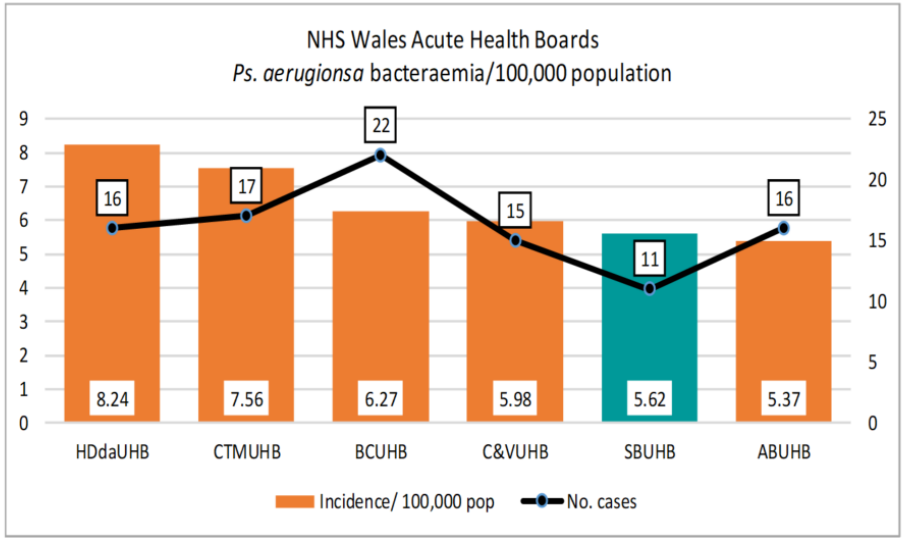
	No. cases	Incidence/ 100,000 pop	% Yr-onYr comparison	Rank in NHS Wales
HDdaUHB	198	101.97	29%	6
CTMUHB	227	100.92	28%	5
SBUHB	169	86.36	35%	4
BCUHB	234	66.72	5%	3
C&VUHB	156	62.17	8%	2
ABUHB	180	60.42	10%	1

***Klebsiella spp* . Bacteraemia**

	No. cases	Incidence/ 100,000 pop	% Yr-onYr comparison	Rank in NHS Wales
SBUHB	48	24.53	17%	6
C&VUHB	60	23.91	43%	5
BCUHB	73	20.91	26%	4
HDdaUHB	35	18.03	9%	3
CTMUHB	39	17.34	-13%	2
ABUHB	50	16.78	-25%	1

Appendix 1

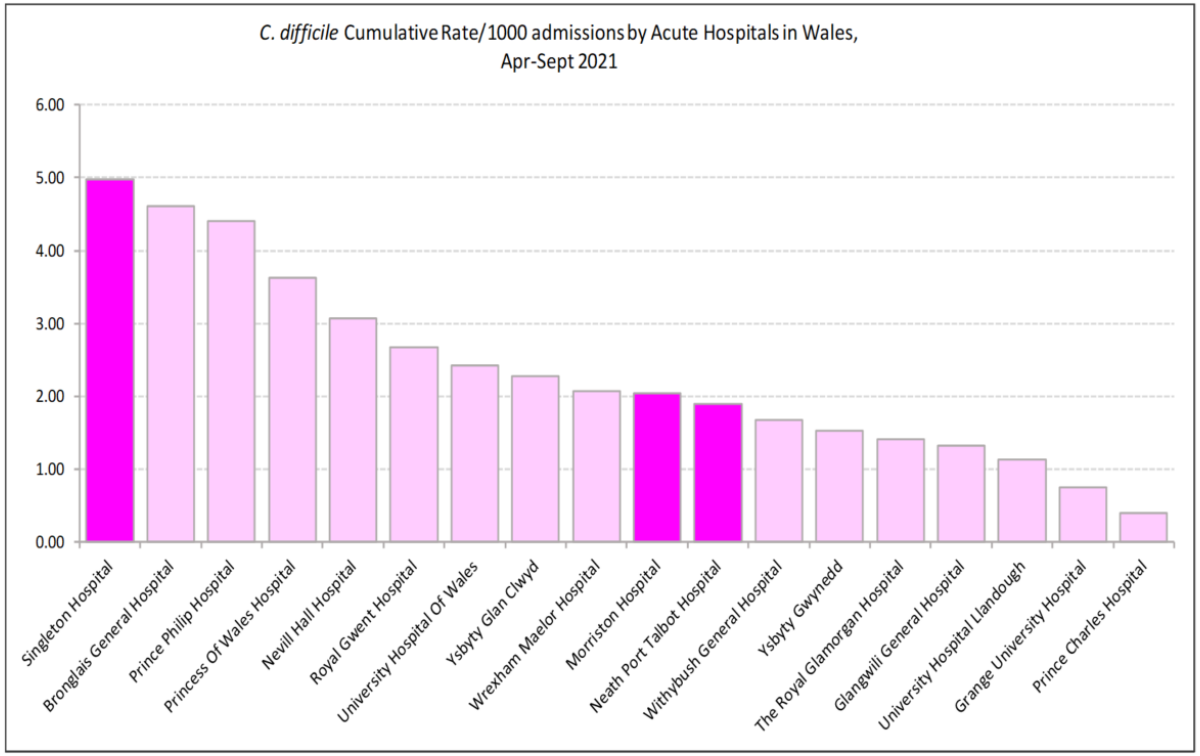
Tier 1 Infections in NHS Wales Acute Health Boards, Cumulative incidence/100,000 population, Apr-Sep 2021



***Pseudomonas aeruginosa* Bacteraemia**

	No. cases	Incidence/ 100,000 pop	% Yr-onYr comparison	Rank in NHS Wales
HDdaUHB	16	8.24	45%	6
CTMUHB	17	7.56	42%	5
BCUHB	22	6.27	-4%	4
C&VUHB	15	5.98	-6%	3
SBUHB	11	5.62	0%	2
ABUHB	16	5.37	78%	1

Tier 1 Infections in NHS Wales Acute Hospitals, Cumulative incidence/1,000 admissions, Apr-Sep 2021: *C. difficile*

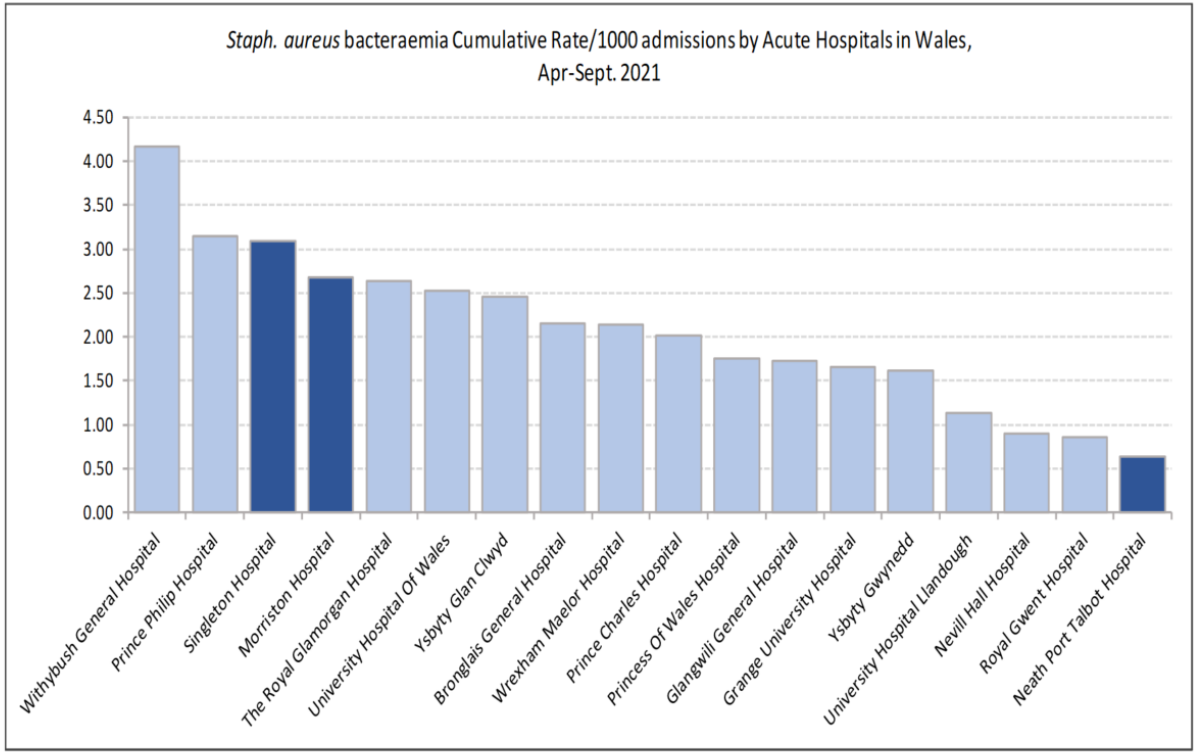


C. difficile

HB	Acute Hospital	Cumulative Rate/1000 admissions	Rank
Aneurin Bevan UHB	Grange University Hospital	0.75	2
	Nevill Hall Hospital	3.07	14
	Royal Gwent Hospital	2.67	13
Betsi Cadwaladr UHB	Wrexham Maelor Hospital	2.07	10
	Ysbyty Glan Clwyd	2.27	11
	Ysbyty Gwynedd	1.53	6
Cardiff and Vale UHB	University Hospital Llandough	1.13	3
	University Hospital Of Wales	2.42	12
Cwm Taf Morgannwg UHB	Prince Charles Hospital	0.40	1
	Princess Of Wales Hospital	3.62	15
	The Royal Glamorgan Hospital	1.41	5
Hywel Dda UHB	Bronglais General Hospital	4.61	17
	Glangwili General Hospital	1.32	4
	Prince Philip Hospital	4.41	16
	Withybush General Hospital	1.67	7
Swansea Bay UHB	Morriston Hospital	2.04	9
	Neath Port Talbot Hospital	1.90	8
	Singleton Hospital	4.98	18

Appendix 1

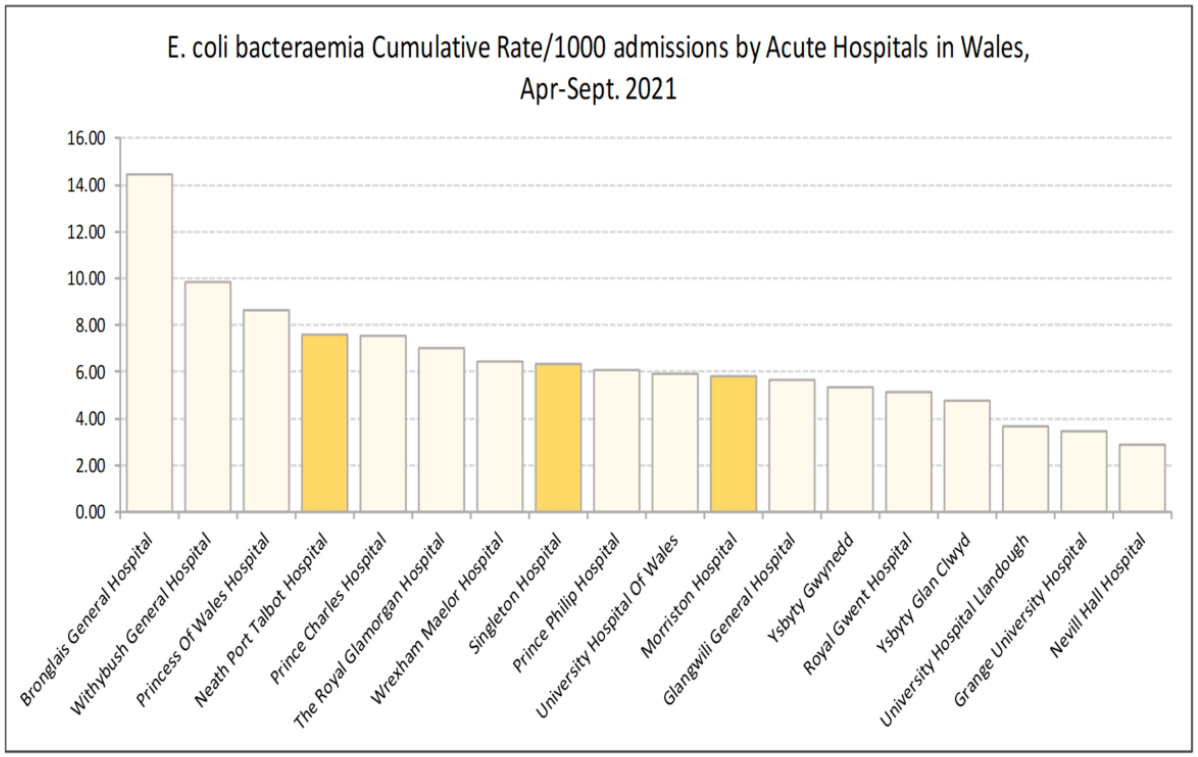
Tier 1 Infections in NHS Wales Acute Hospitals, Cumulative incidence/1,000 admissions, Apr-Sep 2021: *Staph. aureus* bacteraemia



Staph. aurues bacteraemia

HB	Acute Hospital	Cumulative Rate/1000 admissions	Rank
Aneurin Bevan UHB	Grange University Hospital	1.65	6
	Nevill Hall Hospital	0.90	3
	Royal Gwent Hospital	0.86	2
Betsi Cadwaladr UHB	Wrexham Maelor Hospital	2.14	10
	Ysbyty Glan Clwyd	2.45	12
	Ysbyty Gwynedd	1.62	5
Cardiff and Vale UHB	University Hospital Llandough	1.13	4
	University Hospital Of Wales	2.52	13
Cwm Taf Morgannwg UHB	Prince Charles Hospital	2.02	9
	Princess Of Wales Hospital	1.75	8
	The Royal Glamorgan Hospital	2.64	14
Hywel Dda UHB	Bronglais General Hospital	2.15	11
	Glangwili General Hospital	1.72	7
	Prince Philip Hospital	3.15	17
	Withybush General Hospital	4.16	18
Swansea Bay UHB	Morriston Hospital	2.68	15
	Neath Port Talbot Hospital	0.63	1
	Singleton Hospital	3.09	16

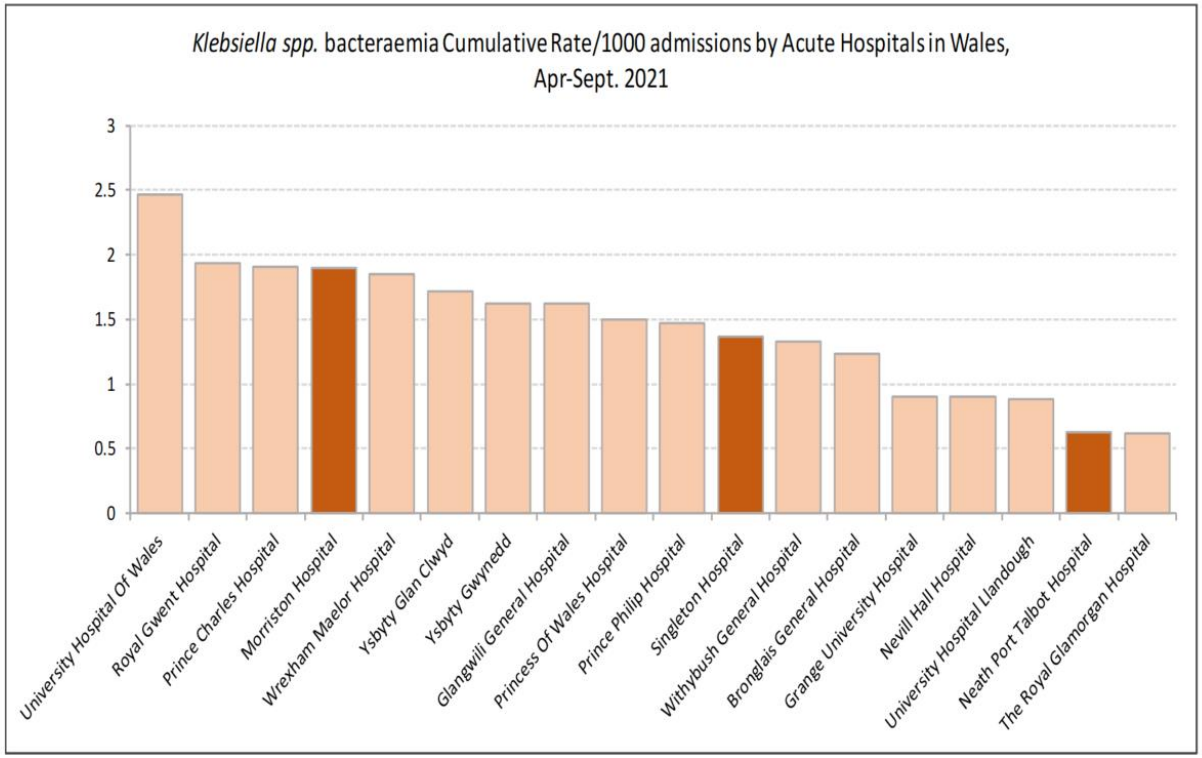
Tier 1 Infections in NHS Wales Acute Hospitals, Cumulative incidence/1,000 admissions, Apr-Sep 2021: *E. coli* Bacteraemia



E. coli bacteraemia

HB	Acute Hospital	Cumulative Rate/1000 admissions	Rank
Aneurin Bevan UHB	Grange University Hospital	3.45	2
	Nevill Hall Hospital	2.89	1
	Royal Gwent Hospital	5.14	5
Betsi Cadwaladr UHB	Wrexham Maelor Hospital	6.43	12
	Ysbyty Glan Clwyd	4.78	4
	Ysbyty Gwynedd	5.36	6
Cardiff and Vale UHB	University Hospital Llandough	3.65	3
	University Hospital Of Wales	5.94	9
Cwm Taf Morgannwg UHB	Prince Charles Hospital	7.56	14
	Princess Of Wales Hospital	8.62	16
	The Royal Glamorgan Hospital	7.04	13
Hywel Dda UHB	Bronglais General Hospital	14.43	18
	Glangwili General Hospital	5.67	7
	Prince Philip Hospital	6.08	10
	Withybush General Hospital	9.83	17
Swansea Bay UHB	Morriston Hospital	5.79	8
	Neath Port Talbot Hospital	7.60	15
	Singleton Hospital	6.35	11

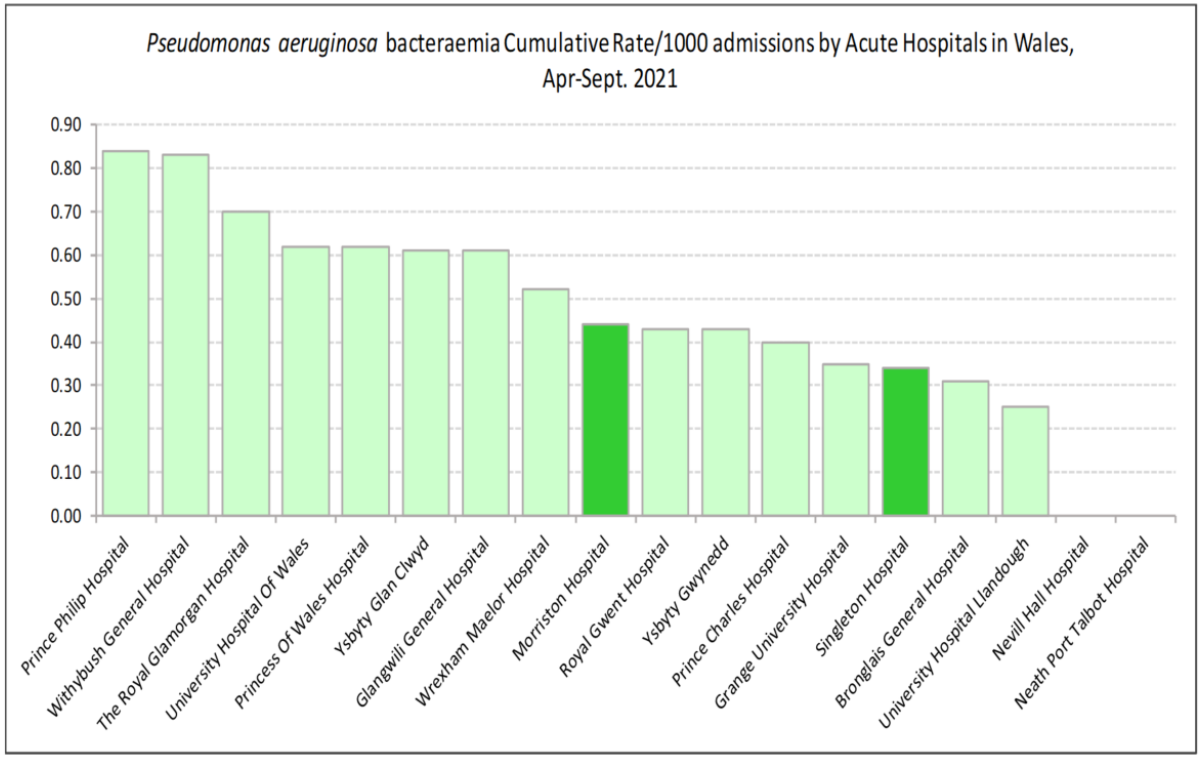
Tier 1 Infections in NHS Wales Acute Hospitals, Cumulative incidence/1,000 admissions, Apr-Sep 2021: *Klebsiella spp*. bacteraemia



Klebsiella spp . bacteraemia

HB	Acute Hospital	Cumulative Rate/1000 admissions	Rank
Aneurin Bevan UHB	Grange University Hospital	0.9	5
	Nevill Hall Hospital	0.9	4
	Royal Gwent Hospital	1.93	17
Betsi Cadwaladr UHB	Wrexham Maelor Hospital	1.85	14
	Ysbyty Glan Clwyd	1.72	13
	Ysbyty Gwynedd	1.62	12
Cardiff and Vale UHB	University Hospital Llandough	0.88	3
	University Hospital Of Wales	2.47	18
Cwm Taf Morgannwg UHB	Prince Charles Hospital	1.91	16
	Princess Of Wales Hospital	1.5	10
	The Royal Glamorgan Hospital	0.62	1
Hywel Dda UHB	Bronglais General Hospital	1.23	6
	Glangwili General Hospital	1.62	11
	Prince Philip Hospital	1.47	9
	Withybush General Hospital	1.33	7
Swansea Bay UHB	Morriston Hospital	1.9	15
	Neath Port Talbot Hospital	0.63	2
	Singleton Hospital	1.37	8

Tier 1 Infections in NHS Wales Acute Hospitals, Cumulative incidence/1,000 admissions, Apr-Sep 2021: *Ps. aerugonisa* bacteraemia



Pseudomonas aeruginosa bacteraemia

HB	Acute Hospital	Cumulative Rate/1000 admissions	Rank
Aneurin Bevan UHB	Grange University Hospital	0.35	6
	Nevill Hall Hospital	0.00	2
	Royal Gwent Hospital	0.43	9
Betsi Cadwaladr UHB	Wrexham Maelor Hospital	0.52	11
	Ysbyty Glan Clwyd	0.61	13
	Ysbyty Gwynedd	0.43	8
Cardiff and Vale UHB	University Hospital Llandough	0.25	3
	University Hospital Of Wales	0.62	15
Cwm Taf Morgannwg UHB	Prince Charles Hospital	0.40	7
	Princess Of Wales Hospital	0.62	14
	The Royal Glamorgan Hospital	0.70	16
Hywel Dda UHB	Bronglais General Hospital	0.31	4
	Glangwili General Hospital	0.61	12
	Prince Philip Hospital	0.84	18
	Withybush General Hospital	0.83	17
Swansea Bay UHB	Morriston Hospital	0.44	10
	Neath Port Talbot Hospital	0.00	1
	Singleton Hospital	0.34	5