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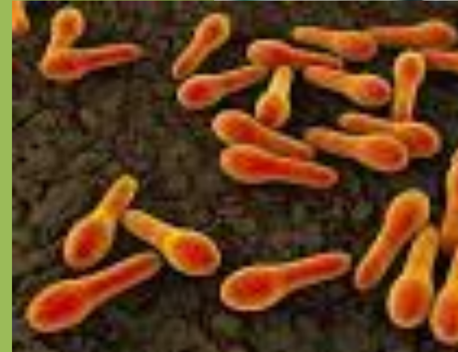
Bwrdd Iechyd Prifysgol
Cwm Taf Morgannwg
University Health Board

Infection Prevention & Control Annual Report 2021-2022



August 2022

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EXECUTIVE SUMMARY

Cwm Taf Morgannwg University Health Board (CTMUHB) is committed to delivering safe and effective care for all and embraces the philosophy of Cwm Taf Cares. Healthcare associated infections (HCAI) remain a key patient safety issue which results in a significant burden of disease and financial cost to the NHS in Wales. CTMUHB is committed to reducing HCAI and adopts a zero tolerance to all preventable infections. There are effective management arrangements, assurance systems and reporting processes in place to support and drive the infection prevention and control (IP&C) agenda.

We are focussed on the goal to be the best in Wales and we are making incremental changes to improve patient safety and deliver the national reduction expectations set by Welsh Government.

The Infection Prevention and Control Team (IP&CT) work across all areas in secondary care but have minimal input into improving IPC practice in primary care. As a significant proportion of the mandatory surveillance organisms are community acquired infections, a dedicated IP&CT is required to effectively deliver a sustainable integrated whole system approach to reducing HCAI.

The infrastructure continues to strengthen across the Health Board which is supported by a comprehensive range of infection prevention and control policies and procedures which act as a resource for staff.

This annual report is produced to provide detailed analysis of the surveillance data, audit, education / training and policies developed to support and direct patient care, collected and produced by the Infection Prevention & Control Team (IP&CT) for the time period from April 2021 – March 2022.

Due to the pandemic, COVID-19 response and supporting re-introduction of services has been the main focus for the IPC team for the past year and therefore some elements of the IPC agenda has not been completed fully.

Key achievements

- The IPC Team have continued to support the COVID-19 response agenda and worked collaboratively with multi professional colleagues to re-start clinical services safely.

- The IP&CT have localised national infection prevention and control and Welsh Government guidance to inform practice across CTMUHB.

- Developed and introduced local reduction expectations for the Integrated Locality Groups based on the national improvement plan for reducing healthcare associated infections

- Developed and shared monthly infographic reports with the ILG Directors to enable and support ownership of local data
- Supported and facilitated student nurse placements with the IP&CT

- Introduced IPC huddles to investigate, discuss and learn from urinary catheter associated bacteraemia

- Recruitment of additional IPC Nurses to provide a comprehensive IPC service.

Healthcare associated infections (HCAI): statistics and performance

Effective infection prevention and control (IPC) must be everybody's responsibility and be central to everyday healthcare practice. Effective IPC practice is based on the best available evidence to reduce preventable infections, improve the quality of care delivered and maximise outcomes for patients.

Welsh Government (WG) reduction expectations for April 2021-March 2022

Welsh Government published revised population based reduction expectations for five surveillance organisms: Clostridium Difficile, Staph aureus bacteraemia, E.coli bacteraemia, Klebsiella bacteraemia and Pseudomonas aeruginosa bacteraemia.

In 2021, local reduction expectations were discussed and agreed for each of the Integrated Locality Groups (ILG) based on the wider Health Board targets for reducing healthcare associated infections (HCAI). The ILG position is monitored at local IPC meetings and a monthly infographic report is produced which demonstrates the ILG and Health Board position against the targets. Assurance is provided to IPC committee.

Number and rate of *C. difficile, S.aureus* bacteraemia, *E. coli* bacteraemia, Klebsiella sp. bacteraemia and Pseudomonas aeruginosa bacteraemia per 100,000 population, April 2021 – March 2022.

	Rate of C. difficile/ 100,000 population		Rate of MRSA bacteraemia/ 100,000 population		Rate of MSSA bacteraemia/ 100,000 population		Rate of E. coli bacteraemia/ 100,000 population		Rate of Klebsiella sp. bacteraemia/ 100,000 population		Rate of Pseudo aer bacteraemia/ 100,000 population	
	No. of cases	Rate	No. of cases	Rate	No. of cases	Rate	No. of cases	Rate	No. of cases	Rate	No. of cases	Rate
Cwm Taf Morgannwg	154	34.46	2	0.44	118	26.23	390	86.70	81	18.01	29	6.45
All Wales	1095	34.55	33	1.67	785	24.77	2139	67.49	618	19.50	188	5.93

Data taken from Wales 2021/22 HCAI mandatory surveillance summary, April 2021 – March 2022

Lower than the same period of previous FY

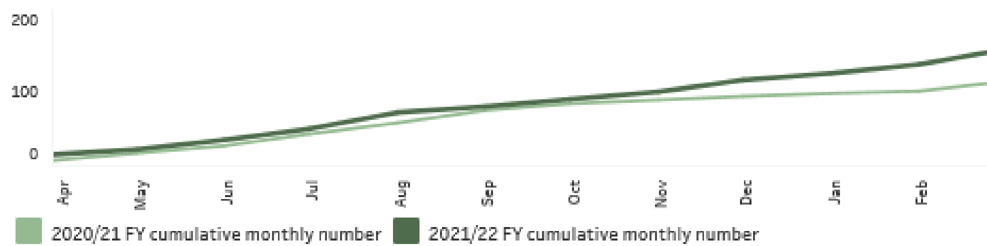
Higher than the same period of previous FY

*** The numbers/rates included in the table above have been taken from the HARP database. There are some anomalies compared to the local numbers included in the narrative below due to different cut off dates for collecting information.**

(A) *Clostridium difficile* Infection (CDI):

The reduction expectation for 2021/22 was 25 cases per 100,000 population, which equates to no more than 112 cases a year. 154 cases of C.Difficile infection were reported April 2021– March 2022. C.Difficile infection increased by 38% across CTM in 2021/22 in comparison to the previous financial year. The rate of C.Difficile infection in CTM for 2021/22 was 34.46 per 100,000 population.

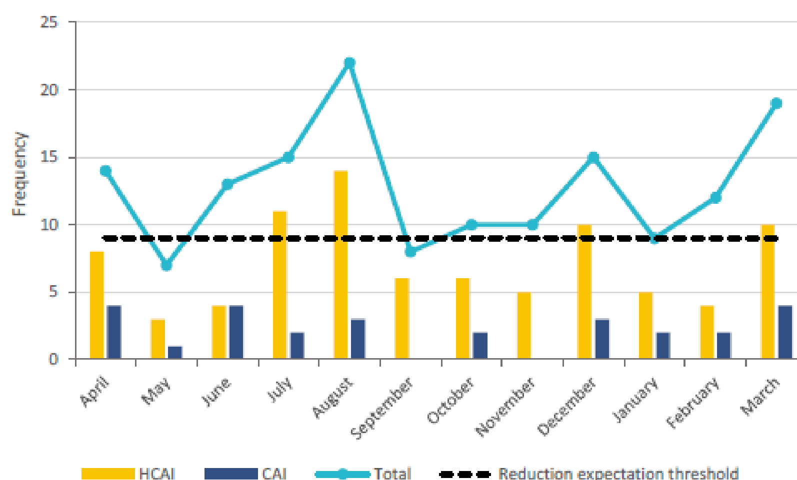
CTMUHB cumulative monthly numbers of C. difficile for April 21– March 22 against the equivalent period in 2020/21



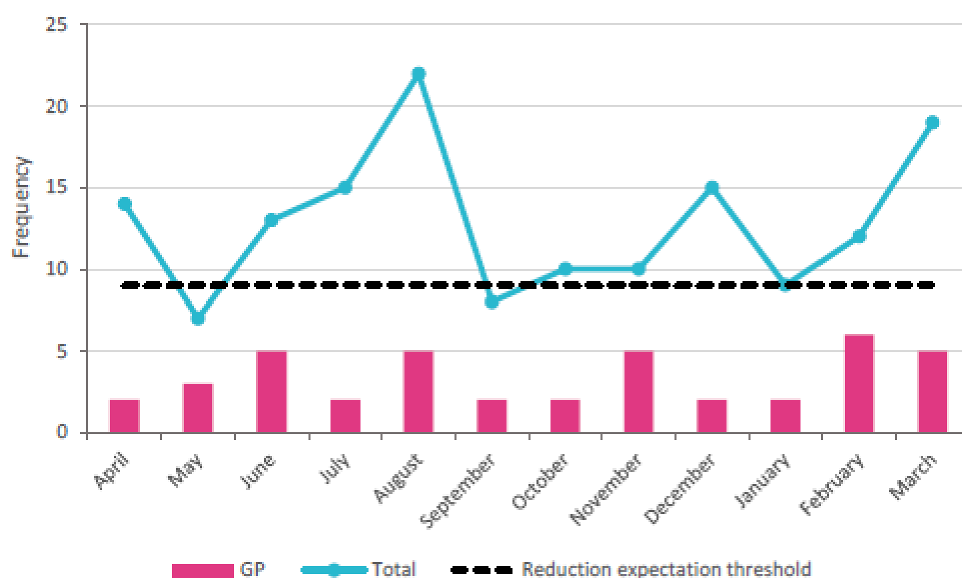
- 60% (93/154 cases) were healthcare associated infections (HCAI) based on sample sent >48 hours post admission to hospital or recent admission past 4 weeks.
- 40% (61/154 cases) were community acquired infections (CAI).
- 30% (46/154 samples) were sent from GP practices - 8 HCAI and 38 CAI.

Across the health board, *C. difficile* infections were consistently above the monthly target. Increases in case identification amongst inpatients were noted between July – August 2021 and from February 2022 to the end of the financial year

Distribution of C. Difficile infections 2021/22, by type of inpatient infection (Threshold ≤9 cases/month)



Distribution of C.Difficile infections 2021/22, specimens sent from GP practices (Threshold ≤9 cases/month)



The RCA process for investigating and learning from C.Difficile cases must be strengthened in RTE and MC ILG and re-introduced in primary care. Reducing C. difficile infection in primary care is key to reducing the overall C. difficile rate.

CDI Mortality Data

A serious incident (SI) notification is submitted for all C. difficile deaths when C.Difficile is included on the death certificate.

Direct attributable cause of death (CDI on any part of death cert.)++

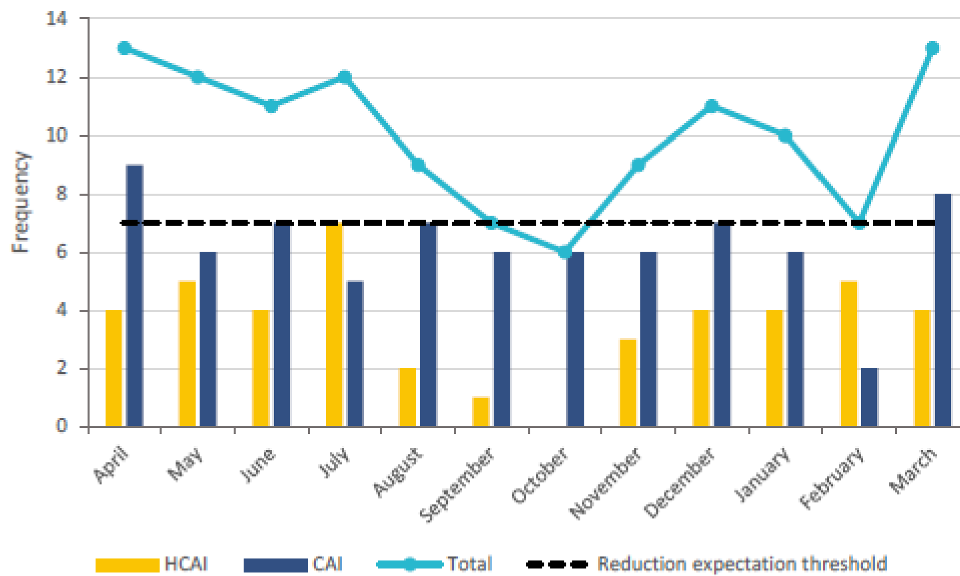
	2020/21	2021/22
RGH	2	1
PCH	2	2
POW	7	5
Total	11 (10%)	8 (5%)

(B) *Staphylococcus aureus* Bacteraemia (MSSA & MRSA)

The reduction expectation for 2021/22 was a combined target (MRSA and methicillin sensitive S.aureus) of 20 per 100,000 population, which equates to no more than 90 cases per year.

A total of 120 cases of S. aureus bacteraemia were reported April 2021 – March 2022 This is a 3% increase in comparison to the same period in the previous year. The rate of S. aureus bacteraemia in CTMUHB for April 2021 – March 2022 was 26.68 per 100,000 population.

Distribution of S.aureus bacteraemia, by type of infection (Threshold ≤7 cases/month)



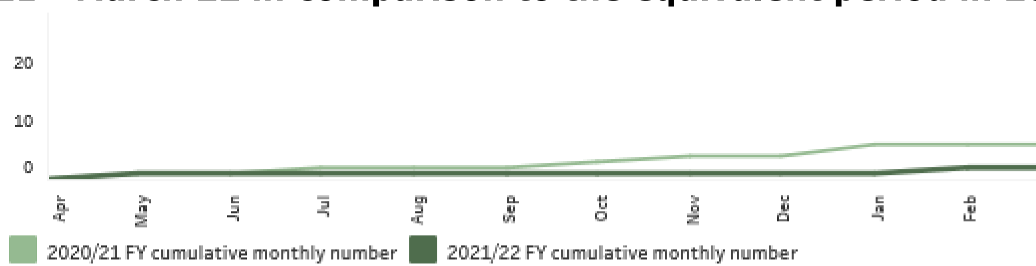
MRSA

The Welsh Health Circular (2019) 019 describes WGs zero tolerance approach to MRSA bacteraemia.

2 MRSA bacteraemia were reported April 2021 – March 2022. This is approximately -67% less than the equivalent period in 2020/21. The provisional rate of MRSA bacteraemia is 0.44 per 100,000 population.

There were no cases of MRSA bacteraemia reported in Rhondda Taf Ely or Merthyr Cynon ILG. Two MRSA bacteraemia were reported from Bridgend ILG, both were healthcare associated infections, one of which was deemed preventable.

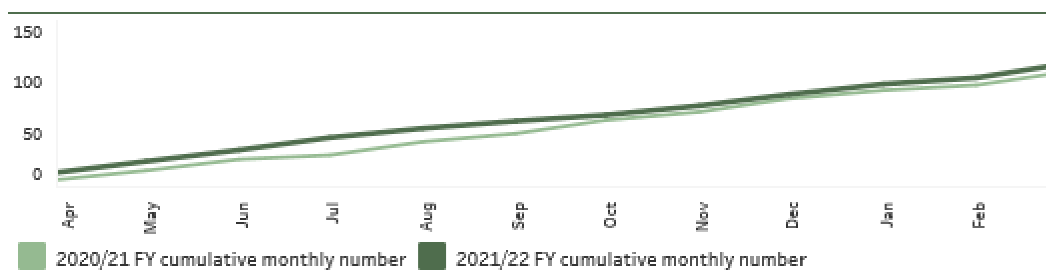
CTMUHB cumulative monthly numbers of MRSA bacteraemia April 21 - March 22 in comparison to the equivalent period in 2020/21



MSSA

118 cases of MSSA were reported April 2021 – March 2022. This is a 7% increase in comparison to the same period in 2020/21.
The rate of MSSA bacteraemia was 26.23 per 100,000 population.

CTMUHB cumulative monthly numbers of MSSA bacteraemia for April 21 to March 22 against the equivalent period in 2020/21



- 36% (42/118 cases) are healthcare associated infections based on the date of sample following admission date. Of the 42 cases, 29% (12/42) had a preventable source –
    - 9 line associated bacteraemia,
    - 2 catheter associated urinary tract infections
    - 1 Surgical Site Infection.

- 64% (76/118 cases) are community acquired infections. Of those cases, 8% (6/76) have a preventable source
    - 2 cases were attributed to a urinary catheter
    - 3 cases were attributed to an IV line
    - 1 case was attributed to a surgical site infection.

The IPC Team investigate all preventable bacteraemia and work with clinical teams to share learning from incidents to influence and improve patient care.

Further work is required to improve management of indwelling devices and develop a robust root cause analysis process to reduce preventable infections.

(C) E.coli bacteraemia

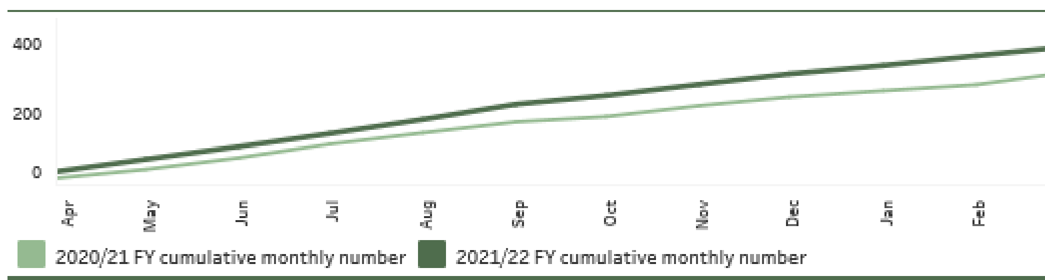
The reduction expectation for 2021/22 was 67 cases per 100,000 population, which equates to no more than 301 cases for 2021/22.

392 E. coli bacteraemia were reported April 2021 – March 2022, which is a 23% increase in comparison to the same period in 2020/21. The rate of E. coli bacteraemia for April 2021 – March 2022 was 86.70 per 100,000 population.

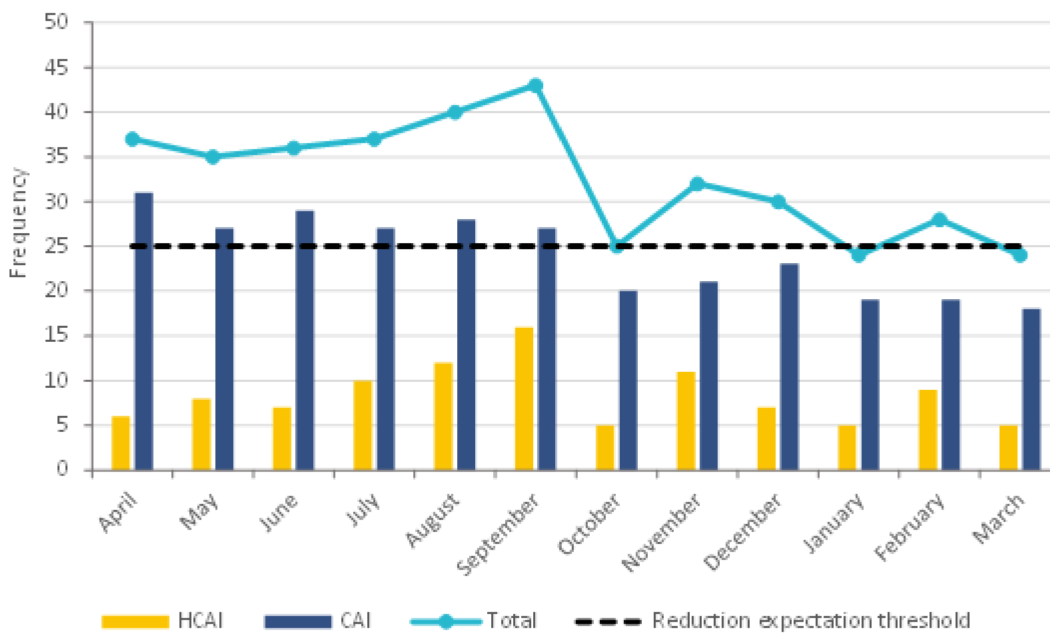
- 26% (101/392 cases) are healthcare associated infections (HCAI) based on sample sent >48 hours post admission to hospital or recent admission past 4 weeks.
    - Of these cases, 16% (16/101) were associated with a urinary catheter.

- 74% (291/392 cases) are deemed to be community acquired infections.
    - 7% had a preventable source (20/291)
    - 18/20 cases were associated with a urinary catheter.

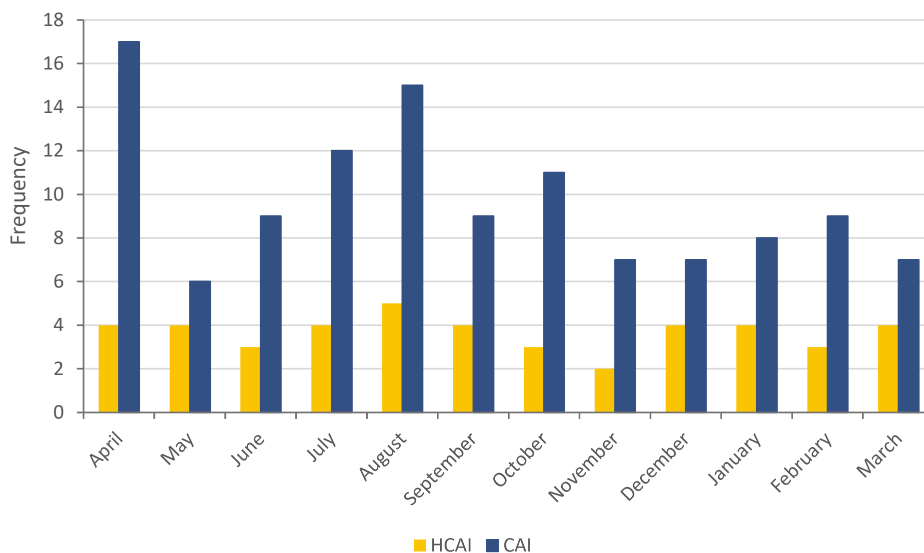
CTMUHB cumulative monthly numbers of E. coli bacteraemia for April 21 to March 22 against the equivalent period in 2020/21



Distribution of E.coli bacteraemia, by type of infection April 2021 – March 2022



Counts of E.coli bacteraemia where urinary tract infection or urosepsis was identified as the source, by type of infection. April 2021 – March 2022



(D) Klebsiella sp. bacteraemia

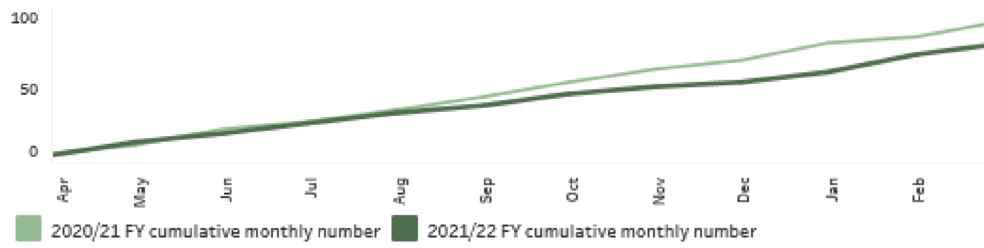
81 cases of Klebsiella bacteraemia were reported between April 2021 – March 2022 which is a 16% decrease in comparison to the equivalent period in 20/21. The rate of Klebsiella sp. bacteraemia for April 2021 – March 2022 was 18.01 per 100,000 population.

CTM achieved a lower rate than the previous financial year but did not meet the reduction expectation.

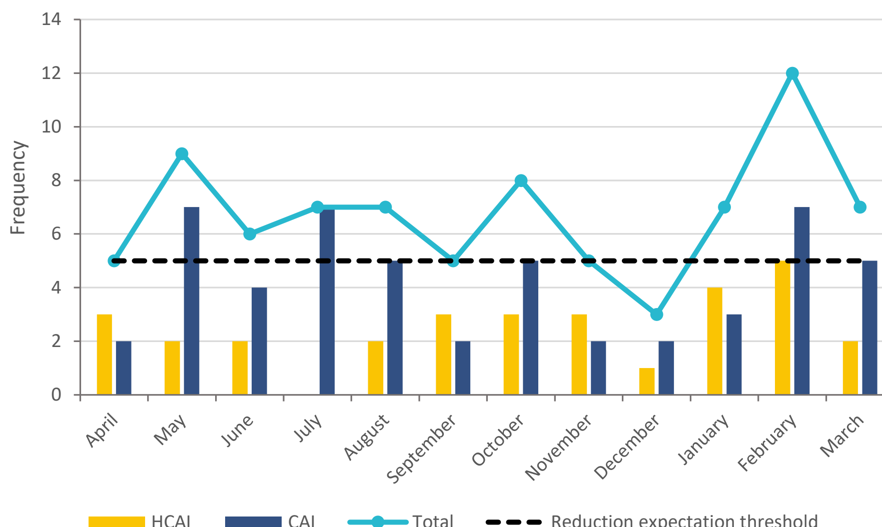
- 36% (29/81) are healthcare associated infections (HCAI) based on sample sent >48 hours post admission to hospital or recent admission past 4 weeks.
- 17% had a preventable source
  - 2 of the cases were associated with a urinary catheter
  - 2 cases were linked to an IV device
  - 1 case was associated with a Ventilator Acquired Pneumonia (VAP).

- 64% (52/81) are community acquired infections.
- 10% (5/52) were associated with a urinary catheter.

CTMUHB cumulative monthly numbers of Klebsiella sp. bacteraemia for April 21 to March 22 against the equivalent period in 2020/21



Distribution of Klebsiella spp. Bacteraemia, by type of infection. April 2021 – March 2022

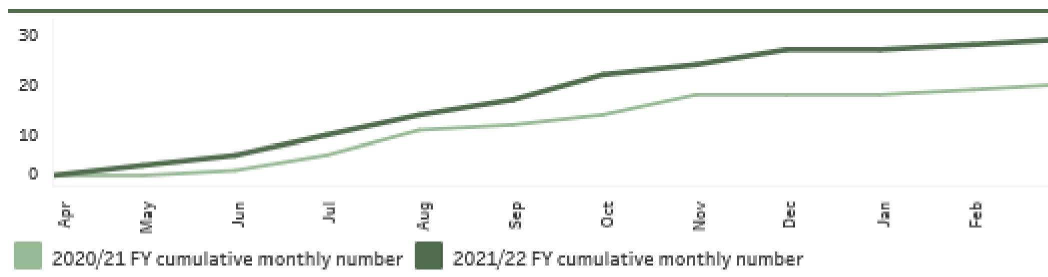


(E) Pseudomonas aeruginosa bacteraemia

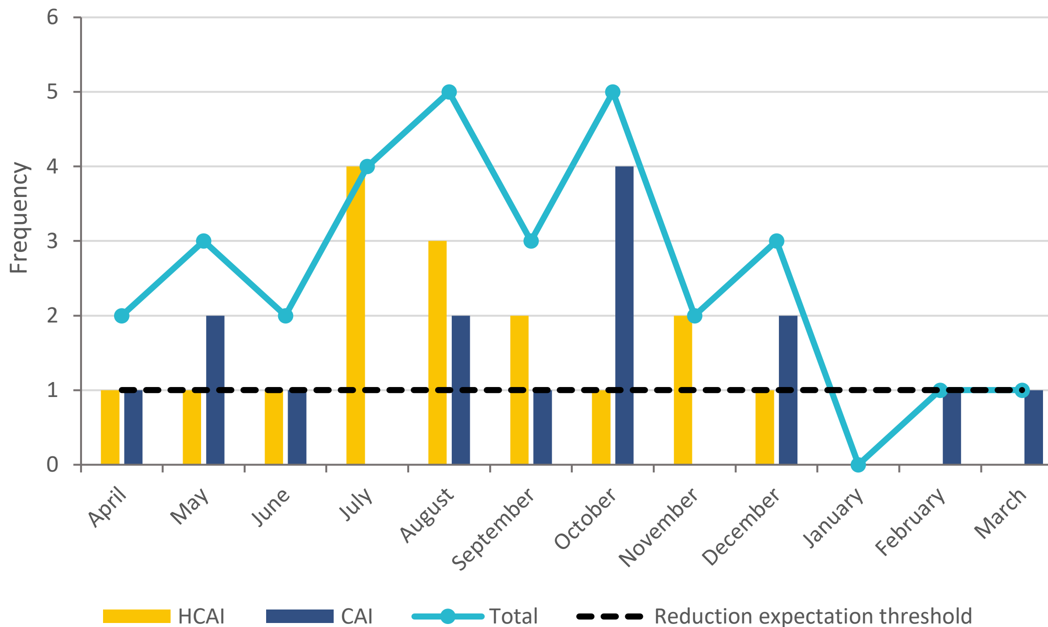
31 cases of P. aeruginosa bacteraemia were reported April 2021 – March 2022 which is a 45% increase in comparison to the same period in 2020/21. The rate of P. aeruginosa bacteraemia for April 2021 – March 2022 was 6.45 per 100,000 population.

- 52% (16/31) of the cases were deemed to be healthcare associated infections (HCAI) based on sample sent >48 hours post admission to hospital or recent admission past 4 weeks.
  - 13% (2/16 cases) were associated with a urinary catheter.
- 48% (15/31) were community acquired infections and 20% (3/15) had a preventable source.

CTMUHB cumulative monthly numbers of Pseudomonas aeruginosa for April to March 2022 against the equivalent period in 2020/21



Cumulative total *Pseudomonas* bacteraemia versus monthly target, April 2021 – March 2022.



(F) Line associated infections

There is no national surveillance scheme for monitoring blood stream infections associated with medical devices eg. IV lines, urinary catheters. In CTM, the IPC Team have investigated every case since 2011. To strengthen the investigation process and learning opportunities, multi-disciplinary IPC huddles were introduced in 2018/19. Not all cases were discussed in 2021/22 due to the COVID pandemic but this is a priority for 2022/23. The ILG are encouraged to lead the IPC huddles to improve ownership and provide opportunities for multi professional learning.

Eleven IV device associated bacteraemia were identified April 2021 to March 2022, 7 of the cases were attributed to peripheral cannulae and 4 cases were associated with central venous access devices. In addition to this, 21 clinical line infections were reported to the IPC team for further investigation. Additional work is required to re-establish the IV steering group, improve compliance with IPC and ANTT training and to strengthen the RCA/IPC investigation process to provide opportunities for multi professional learning.

3. Surveillance

Surgical Site Infection Surveillance (SSI)

Cwm Taf UHB participate in the mandatory surveillance of Surgical Site Infections (SSI) for Orthopaedic and C. section surgery. Using standardised methods allows Health Boards across Wales to analyse their SSI data and improve the quality of care delivered. National surveillance also allows hospitals/ Health Boards to benchmark performance information.

Due to the COVID pandemic, Orthopaedic SSI surveillance data has not been published for 2021/22.

C.section SSI

The CTM C.section SSI rate for 2021/22 is 8% with a 14 day SSI rate of 3%. There was no difference in SSI rates between the Princess of Wales and Prince Charles Hospital sites.

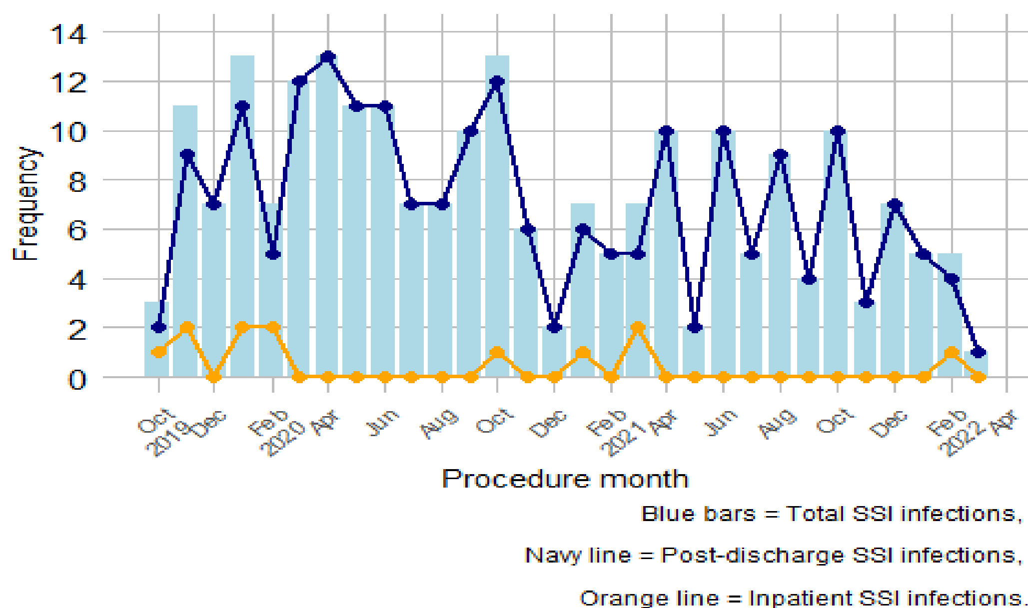
The All Wales C.section SSI rate has not been published.

CTM C.section SSI data, 2021/22

Month	Valid records (%)[1]	Inpatient SSI	Post-discharge SSI	Rate SSI (%)[2]	14 day SSI rate (%)[3]
Apr 2021	100%	0	10	10%	4%
May 2021	100%	0	2	2%	1%
Jun 2021	50%	0	10	20%	6%
Jul 2021	97%	0	5	5%	2%
Aug 2021	98%	0	9	9%	4%
Sep 2021	100%	0	4	5%	0%
Oct 2021	42%	0	10	27%	3%
Nov 2021	100%	0	3	4%	4%
Dec 2021	95%	0	7	7%	3%
Jan 2022	81%	0	5	6%	1%
Feb 2022	26%	1	4	19%	11%
Mar 2022	52%	0	1	4%	4%

1- Valid procedures: data provided for procedure and discharge dates and inpatient and post discharge SSI
2- Total SSI/valid procedures x 100: only include valid records
3- Total SSI within 14 days of procedure date/ valid procedures x 100; only includes valid records

Monthly C.section SSI, by infection type



Further work is planned to improve the surveillance systems and reporting processes to ensure the Health Board has accurate and reliable C.section SSI data to inform and influence patient care.

Critical Care Surveillance

Ventilator Associated Pneumonia (VAP) Surveillance

No data published.

4. IPC Policies Approved in 2021/22

The following Infection Prevention and Control policies/procedures and guidelines were approved at the Infection Prevention & Control Committee. All documents are accessible for staff via the Intranet.

No.	Title	IPCC Approval
IPC06	Linen Policy	June 21
IPC09	MRSA Procedure	March 21
IPC12	IPC Isolation Procedure	June 21
IPC13	Peripheral Line Protocol	June 21
IPC22	Protocol for the Management of scabies	June 21

Policies agreed at IPC committee prior to approval at other committees.

IPC23	Tuberculosis	June 21
RM19	Needlestick (sharps) Injuries Management from Occupational Exposure Procedure	Nov 21
FAC01	Housekeeping and cleanliness Policy	Oct 21
FAC14	Food Safety Policy	Jan 22
FAC21	Waste Policy	Nov 21

5. Internal Audit Programme and performance

All clinical areas are required to perform weekly hand hygiene and environmental audits. The ILG teams monitor and act on their audit findings and report to the ILG IPC meetings.

The IPC Team has a rolling annual audit programme including all clinical areas and departments for independent verifications. Audit scores and results are shared with the Ward Manager and Senior Nursing team for information and action. Infection Prevention and control training is provided to address non-compliance identified during audit process as required.

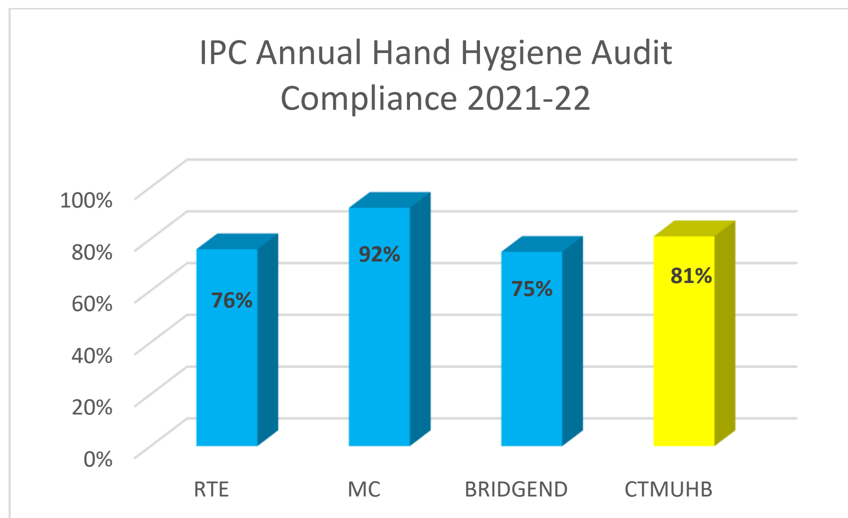
The IPC team did not complete the planned audit programme in 2021/22 due to competing demands as a result of the COVID pandemic but informal spot checks were carried out regularly during ward visits and non-compliance with IPC policies was addressed at the time of the visit.

Audit Results

The data shown below includes cumulative results of IPC verification audits across staff groups and departments in secondary care.

(A) Hand Hygiene Audits

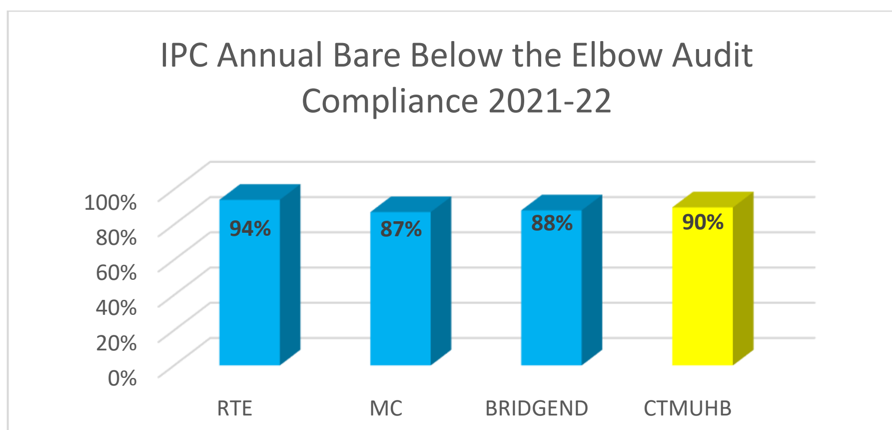
Hand hygiene audits are based on the WHO's "5 moments for hand hygiene" which is applied to all staff working in clinical areas. The graph below identifies staff group achievements and compliances at each observed moment of care during clinical intervention where hand hygiene opportunities were either observed as achieved or missed. All missed opportunities/ non-compliance is discussed with the member of staff at the time of the audit.



Hand hygiene is the single most important measure to prevent cross infection. Clinical engagement is paramount to improve compliance with hand practice. Infection prevention and control is everybody's business and all staff must practice infection prevention and control precautions at all times.

(B) Bare Below the Elbow Audit

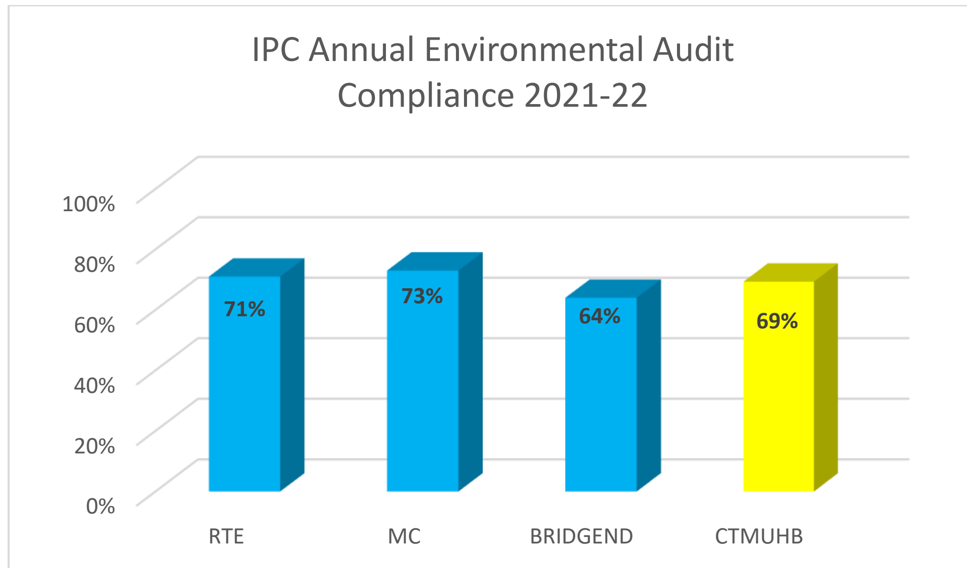
Consistent efforts have been made to improve hand hygiene practice and compliance with bare below the elbow. It is the responsibility of all clinical staff, irrespective of grade or profession to be bare below the elbow in the clinical environment.



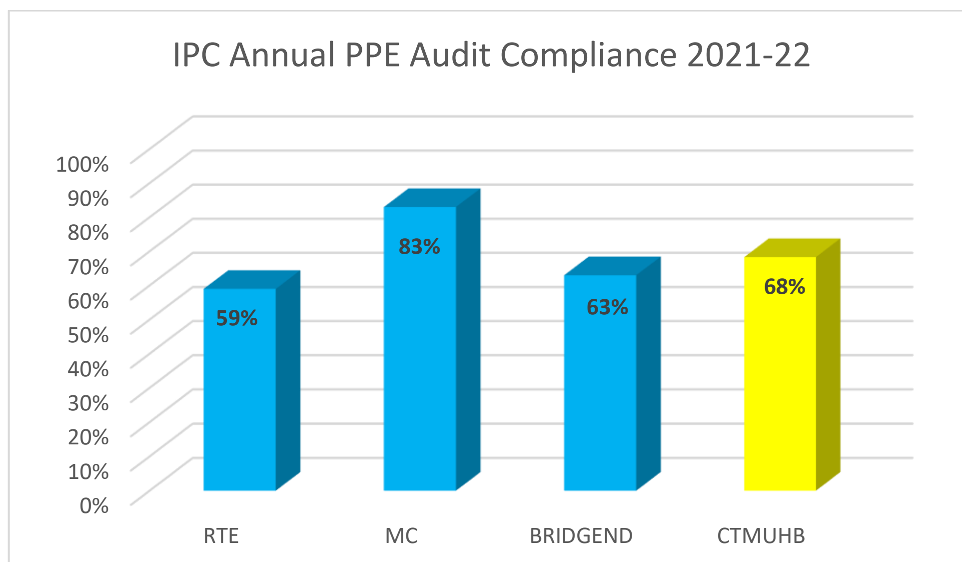
(C) Environmental Cleanliness Audits

The scores below not only reflect standards of cleaning for housekeeping and nursing staff but also includes any maintenance/ estates issues identified during the audits. Additional cleaning hours have been provided to support the COVID response.

Poor audit scores have been reported across all sites. The audit reports have been sent to nursing, housekeeping and estates colleagues as required.



(C) Personal Protective Equipment (PPE) Audits



Poor audit scores have been reported across all sites. The IPC team have provided additional training. During 2021/22, personal protective equipment has been

6. Outbreaks and Incidents

Diarrhoea and Vomiting (D&V)

Viral D&V is usually brought into the hospital from the community. It is essential that everyone is compliant with policies and procedures in order to reduce outbreaks of viral gastroenteritis on the wards. Prompt assessment and isolation is key to minimising outbreaks.

All patients should have an infection prevention and control clinical risk assessment performed on admission to identify any infection prevention and control risks.

	2020/21	2021/22
Total no of Ward Closures & Bay Restrictions (Due to Suspected / Confirmed Viral Diarrhoea and Vomiting)	6	8
No. of Patients	20	50
No. of Staff	0	15
No. of Bed Days lost	0	65

No. of Norovirus Outbreaks on Closed wards	2020/21	2022/22
Confirmed	1	1
Suspected	0	2

There was an increase in ward closures/bay restrictions due to D&V in 2021/22 compared to the previous year.

Period of Increase Incidence (PII)

6 PII meetings were held during 2021–2022. Remedial and corrective actions were identified and monitored by the ILGs, supported by the IPC Team.

Location	Period	Organism	Cases
Ward 8, POW	April - June 2021	CDI	8
Ward 6, POW & Ysbyty'r Seren	July 2021 – Feb 2022	CDI	6
School House Day Nursery, POW	September 2021	Presumptive E. coli 0157	1
POW site • Ward 15 • Ward 18 • Ward 19 • Ward 20 • Ward 5 • Ward 6 • Ward 7 • Ward 8 • Ward 9 • Ward 10 • COVID ITU • Ysbyty'r Seren	September 2021	C. difficile Toxin Positives C. difficile Toxin Negatives	20 19
Ward 4, POW	November 2021	HMPV	9
Ward 11, PCH	March 2022	CDI PII	2

Serious Incident/ No Surprises Notifications
(excludes SI notifications for CDI related deaths)

Location	Period	Organism	Total No. of Cases
Ward 8, POW	April 2021	C. difficile	5
Ward 5, PCH	July 2021	COVID19	3
Ward 6, PCH	July 2021	COVID19	3
ITU, PCH	August 2021 September 2021	• Pseudomonas • Serratia	8 5
Ward 15, POW	September 2021	COVID19	2

7. COVID – 19

Public Health Wales released a briefing in January 2020 alerting Health Board's to cases of pneumonia of unknown microbial aetiology associated with Wuhan City, Hubei Province, China. A cluster of cases had been identified which represented the emergence of a novel pathogen – COVID-19.

As the pandemic evolved during 2021/22, Public Health Wales, in line with the four nations, published IPC guidance to promote standardisation of practice across the UK. The IPC team worked collaboratively with the ILGs to deliver a robust multi professional response to COVID across CTM.

Summary

- Between 1st April 2021- 31st March 2022, 3,322 cases of COVID-19 were identified in hospitals across Cwm Taf Morgannwg University health board (CTMUHB). Of these 372 (11%) died within 28 days of the first positive specimen.
- Following recovery from the second wave of the COVID-19 pandemic (September 2020 - April 2021), combined with the successful nationwide roll-out of the COVID-19 vaccine, case numbers remained low during the first quarter of the financial year. However, confirmed cases began to rise again in July 2021. This rise aligned with the identification of new COVID-19 genomic variants of concern - Delta, which dominated the third wave (July – December 2021) and Omicron (BA.1), which dominated the fourth wave (December 2021-April 2022). Further mutations of the Omicron variant (Omicron BA.2) in March 2022 saw a resurgence of COVID-19 cases at the end of the financial year. These COVID-19 variants displayed increased transmissibility when compared to previous dominant lineages.
- 130 COVID-19 outbreaks were identified in CTMUHB hospitals between 1st April 2021- 31st March 2022. Identification of nosocomial cases (admitted to hospital for >2 days at time of first positive specimen OR positive specimen with 14 days of discharge from site) followed the same trends as those observed in community onset cases.
- Changes were made to the COVID-19 screening/isolation protocols during the financial year. The isolation period for confirmed cases and contacts were reduced from 14 days to 10 days in January 2022. Routine screening every five days for all inpatients (regardless of symptoms) was stood down on 24th March 2022.
- A COVID-19 nosocomial scrutiny panel was piloted in Rhondda Taf Ely Interim Locality Group between April - August 2021. The panel reviewed nosocomial COVID-19 cases who had died within 28 days of positive specimen. Outbreaks within the Royal Glamorgan Hospital from the second wave of the pandemic were reviewed, taking into account operational and infection prevention and control measures relevant at the time, and including available epidemiological and genomics evidence. Following guidance from the NHS Delivery Unit, this process will be

expanded to review all outbreaks of COVID-19 in all CTMUHB hospitals since the start of the pandemic. A Nosocomial Transmission Team has been appointed to progress with this work.

For full COVID report, please see Appendix 1

8. Antimicrobial Stewardship

(1) Secondary Care
(a) National Improvement Goals

There are 2 national improvement goals 2021-2023. The progress made by CTM is shown in the table below.

	Improvement Goal	CTM progress	Notes
Welsh Health Circular antimicrobial resistance (AMR) and healthcare-associated infection (HCAI) Improvement Goals 2021-23.	≥55% of antibacterial prescribing should be antibacterials in the WHO ACCESS** category – see Figure 1 below (data to end September 2021).	All 3 acute hospitals are currently meeting the target.	
	Implement the principles of 'Start Smart then Focus' (SSTF)	See Figures 2-4 below for compliance with SSTF audits. ARK charts rolled out in POWH October 2021. ARK charts not in place in PCH/RGH.	Targets to be introduced in 2022-23. Principles of SSTF will be supported by roll out of Antibiotic Review Kit (ARK) chart.

** key antibiotics which are narrow spectrum and used as first-line treatment options.

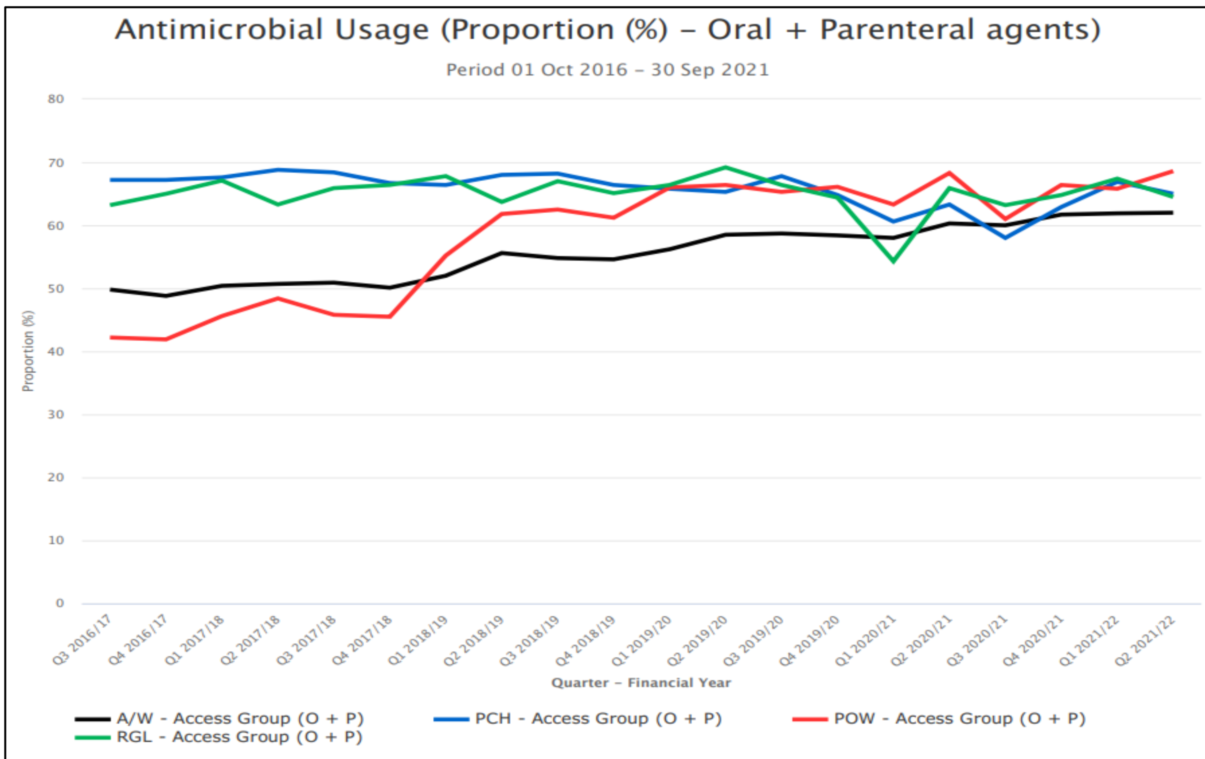


Figure 1: ACCESS group antimicrobial usage in acute sites (data to end September 2021)

Showing Hospitals for **Cwm Taf Morgannwg UHB**

Monthly audits per Unit for **Princess of Wales Hospital**

GIG CYMRU NHS WALES | Iechyd Cyhoeddus Cymru Public Health Wales

Unit	Jun 2020	Jul 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022
Acute medicine (POW)	0	0	0	0	0	0	0	0	0	0	0	8	20	20	20	20	20	20	14	20	20	10	20	20
Cardiology (POW)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4	6
COTE (POW)	0	0	0	0	0	1	0	0	0	0	0	0	0	17	10	12	19	16	0	1	20	7	0	25
Critical Care (POW)	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0
Endocrinology (POW)	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4	6
ENT (POW)	0	0	0	0	0	0	0	0	0	0	0	0	16	0	9	20	4	0	0	0	0	0	0	0
Gastroenterology (POW)	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	7
Gynaecology (POW)	0	0	0	0	0	0	0	0	0	0	0	0	5	0	2	4	0	0	0	0	0	0	0	0
MentalHealth (POW)	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Neonatal (POW)	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	0	0	0	0	0	0	0
Obstetrics (POW)	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	6	0	0	0	0	0	0	0
Paediatrics (POW)	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0
Palliative care (POW)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Respiratory (POW)	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	10
Stroke (POW)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	0	0	0	0	0	0	4	12
Surgery (POW)	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
T+O (POW)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urology (POW)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Figure 2: POWH compliance with SSTF audits

Showing Hospitals for **Cwm Taf Morgannwg UHB**

Monthly audits per Unit for **Royal Glamorgan Hospital**

Unit	Jun 2020	Jul 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022
Acute medicine (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cardiology (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COTE 1 (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COTE2 (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
COTE-Acute (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Critical Care (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Endocrinology (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ENT (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gastroenterology (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Surgery (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GIM (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gynaecology (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Haematology (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intensive Care	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MentalHealth (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Opthalmology (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oral surgery (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Orthopaedics (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paediatrics (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Respiratory (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urology (RGH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Figure 3: RGH compliance with SSTF audits

Showing Hospitals for **Cwm Taf Morgannwg UHB**

Monthly audits per Unit for **Prince Charles Hospital**

Unit	Jun 2020	Jul 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022
Cardiology (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Critical Care (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Endocrinology (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ENT (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gastroenterology (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Medicine (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Surgery (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gynaecology (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Haematology (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MentalHealth (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Neonatal (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Obstetrics (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Opthalmology (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oral surgery (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Orthopaedics(PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Paediatrics (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Respiratory (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stroke (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Urology (PCH)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Figure 4: PCH compliance with SSTF audits

(b) Antimicrobial stewardship work programme

<u>Antimicrobial Guidelines</u>

The major focus of the antimicrobial stewardship team has been the merge of the Cwm Taf and POWH antimicrobial guidelines. This has involved detailed review and update of all sections of the guidelines in conjunction with clinical and microbiology colleagues. The original deadline for the complete merge and creation of a single CTM antimicrobial guideline was March 2020. This has been delayed due to the COVID-19 pandemic. The target for completion is now August 2022, to coincide with the new intake of medical staff, the team are on track to deliver this target.

<u>Antimicrobial Ward Rounds</u>

Antimicrobial ward rounds (Consultant Microbiologist +/- Antimicrobial Pharmacist depending on antimicrobial pharmacist availability) are key to engaging with clinical staff and embedding good antimicrobial stewardship at ward level. The following antimicrobial ward rounds are currently in place:
POWH: ITU 3 x per week; AMU 3 x per week; *C. difficile* 1 x per week.
RGH: ITU 3 x per week; AMU 1 x per week.
PCH: ITU 3 x per week; *C. difficile* 1 x per week.

<u>*C. difficile* Root Cause Analysis</u>

Antibiotic prescribing is investigated in detail for all patients with healthcare-associated *C. difficile* infection. Any lessons learnt with regard to antimicrobial stewardship are communicated to clinical colleagues along with other measures put in place as necessary e.g. amendment of antimicrobial guidelines.

<u>Restricted Antibiotics</u>

There are protocols in place in PCH, RGH and POWH for the issue of restricted antibiotics (those requiring microbiology approval) by the pharmacy department. In addition, in POWH there is a separate, specific procedure for co-amoxiclav. In POWH, any antimicrobial prescribing outside of guidelines, without microbiology approval necessitates the pharmacist completing an antibiotic exception report, which is cascaded to the Medical Director. This is to ensure the prudent use of broad-spectrum antibiotics (WHO WATCH antibiotics) and antibiotics that should be reserved to treat resistant infections (WHO RESERVE antibiotics)

<u>Audits</u>

Implementing the principles of <u>'Start Smart then Focus'</u> is one of the <u>Welsh Health Circular's</u> improvement goals for 2021-22. Targets for compliance will be introduced in 2022-23.These audits were started in POWH in June 2021. They are not yet in place in PCH or RGH due to the shortage of antimicrobial pharmacists and the lack of AMS groups in Merthyr Cynon and Rhondda Taf Ely. Implementation is planned for 22-23/23-24 when appropriate staffing resource is in place.

Education and Training
Education on antimicrobial stewardship is provided by clinical pharmacists in PCH, RGH and POWH. Audiences include pharmacists, fifth year medical students, doctors new to the Health Board and junior doctors.

ARK (Antibiotic Review Kit) Chart
The ARK chart has been in use in POWH (excluding mental health and paediatrics) since October 2021. The ARK chart supports the principles of 'Start Smart then Focus' and therefore should be a priority for the Health Board at all acute sites. The ARK chart has not been introduced in PCH or RGH due to the shortage of antimicrobial pharmacists and the lack of AMS groups in Merthyr Cynon and Rhondda Taf Ely. Implementation is planned for 22-23/23-24 when appropriate staffing resource is in place.

(2) Primary Care
(a) National Prescribing Targets

There are 3 national antimicrobial prescribing targets.

	Indicator	Target	CTM progress
All Wales Medicines Strategy Group National Prescribing Indicators 2021-22	Total antibacterial items/1000 STAR-PUs	Quarterly reduction of 5% against baseline of data from April 2019-March 2020	Target achieved based on Q4 data see section 2.1.1 below
	4C* antibacterial items/1000 patients *4C = co-amoxiclav, cephalosporins, fluoroquinolones, clindamycin.	To reduce prescribing compared with the quarter ending December 2019.	Target achieved. See section 2.1.2 below
Welsh Health Circular AMR and HCAI Improvement Goal 2021-23	Total antimicrobial volume	25% reduction from baseline year of 2013/14 by 2024 (10 year target).	The WHC AMR Improvement Goals for 2021/22 indicated that CTMUHB had met the 25% target for antimicrobial usage (25.4% reduction). However when interpreting 2020/21 data the effect of the COVID-19 pandemic must be considered as it could have impacted ion antimicrobial prescribing practices. During 21/22 we have seen an increase in antimicrobial prescribing, more in line with pre-pandemic levels. Not on track to meet target by 2023/24.

			Based on current prescribing data for the 2021/22 financial year (awaiting year end PHW report) CTMUHB prescribing reduced by 23.4% compared with 2016/17 (see fig 5) There is a risk that the HB may not be on track to meet the improvement goal

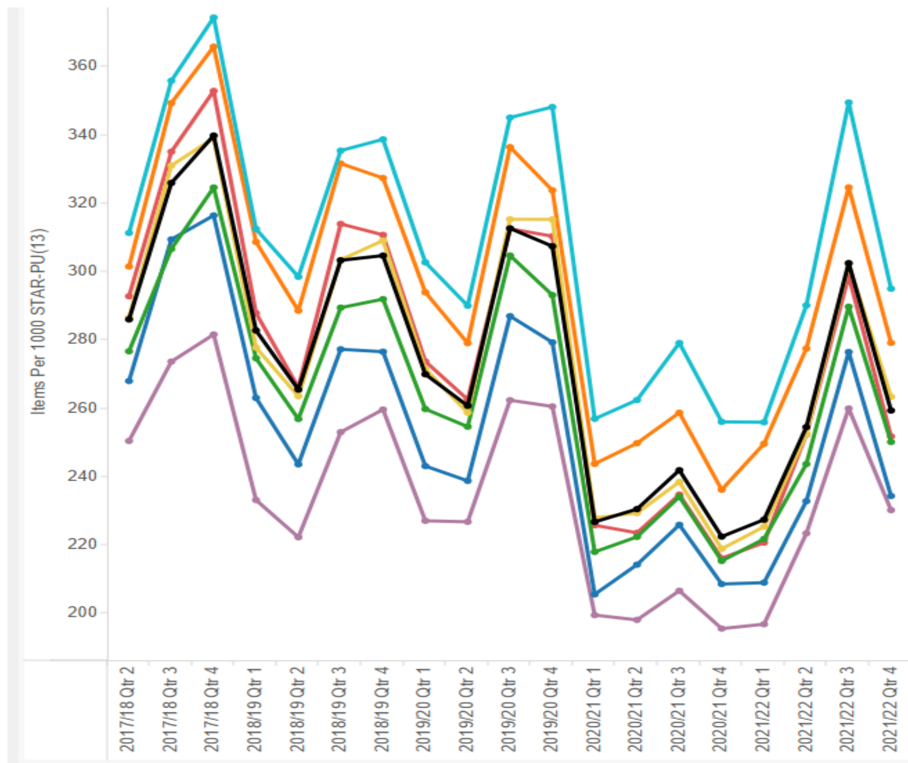
National Prescribing Indicators

2.1 ANTIMICROBIAL STEWARDSHIP
2.1.1 Total antibacterial items

Data source: NWSSP Unit of measure: Total antibacterial items per 1,000 specific therapeutic group age– sex related prescribing units (STAR-PUs).

Targets for 2021–2022: Health board target: a quarterly reduction of 5% against a baseline of data from April 2019–March 2020

	Quarter ending June		Quarter ending September		Quarter ending December		Quarter ending March	
	2021 target	2021 Actual	2021 target	2021 Actual	2021 target	2021 Actual	2022 target	2022 2Actual
CTMUHB	288	256	276	290	328	350	331	295



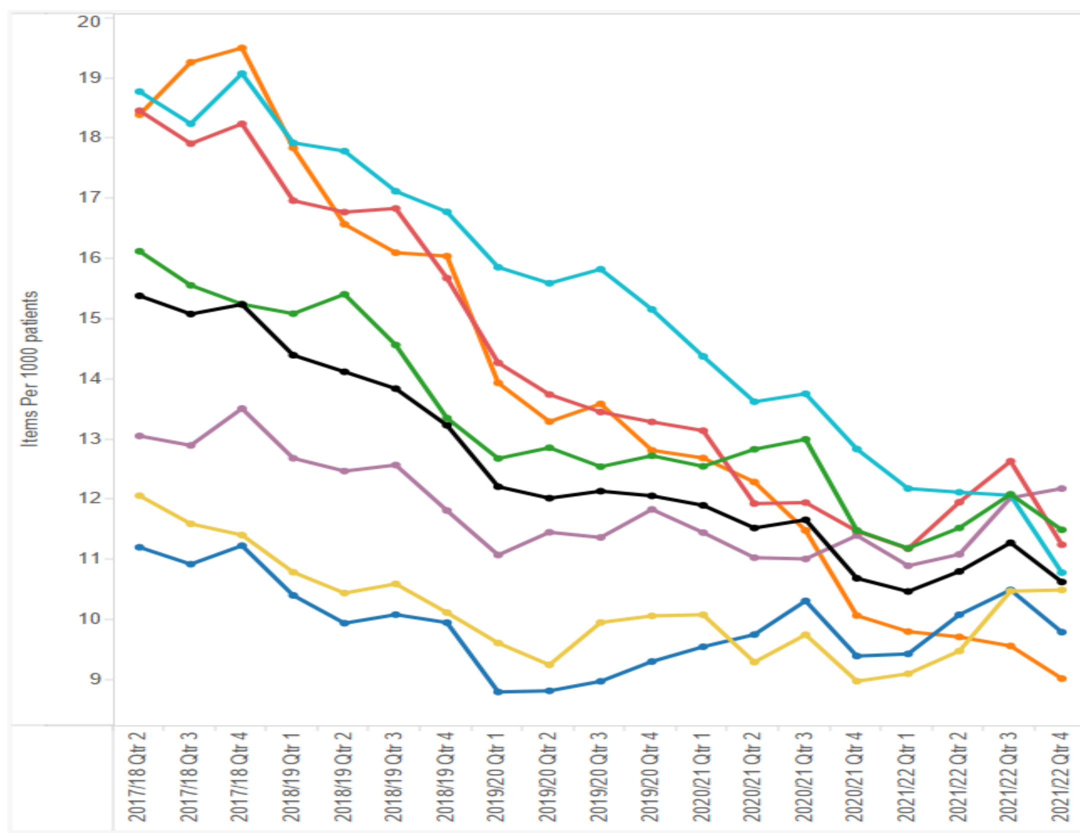
2.1.2 4C antimicrobials

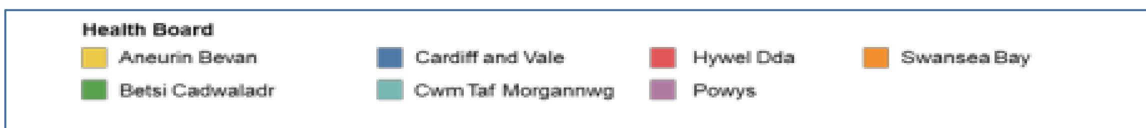
Data source: NWSSP Unit of measure: Co-amoxiclav, cephalosporin, fluoroquinolone and clindamycin (4C antimicrobials) items combined, per 1,000 patients.

Targets for 2021–2022: Health board target: A quarterly reduction of 10% against a baseline of data from April 2019–March 2020

	Quarter ending June		Quarter ending September		Quarter ending December		Quarter ending March	
	2021 target	2021 Actual	2021 target	2021 Actual	2021 target	2021 Actual	2022 target	2022 2Actual
CTMUHB	14.3	12..9	14.0	12.12	14.2	12.07	13.6	10.79

Fig 6 4C Antibacterial Items Per 1000 patients





(b) Antimicrobial stewardship work programme

<u>Antimicrobial Guidelines</u>

The major focus of the antimicrobial stewardship team has been the merge of the Cwm Taf and POWH antimicrobial guidelines and implementation of the AWMSG updated Antimicrobial Guidelines (published March 2022). This work will be completed by August 2022.

<u>Audits</u>

Work has focused on completing antibiotic prescribing audits within GP practices, and the results fed-back to the prescribers along with local and national prescribing and resistance data.

A cephalexin audit was been included in the Prescribing Management Scheme for 2021/22, analysis of the audit data identified recommendations to be taken forward in 2022-23 to meet the audit standards:

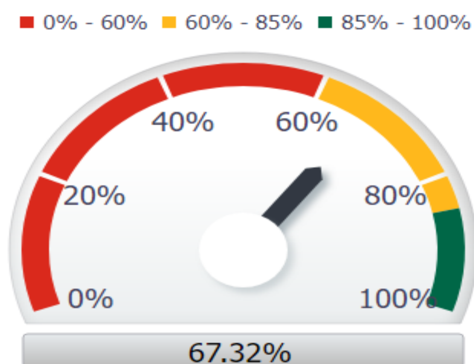
- 100% of cephalosporins prescribed were for indications specified in current CTMUHB primary care antimicrobial guidelines or on the specific advice of microbiology following test results.
- 100% of cephalosporins prescribed were in accordance with the dose & duration specified in current CTMUHB primary care antimicrobial guidelines or on the specific advice of microbiology following test results

A rosacea educational session/audit pack has been developed and will be implemented during 2022/23 and an acne pack is in development. Practices are being supported to complete the QAIF Antimicrobial Stewardship UTI Project where selected by the practice.

9. Education and Training Activities

Face to face training was reintroduced in 2021to supplement the E.learning provision. A blended approach is now available for IPC training.

The table below identifies the number of staff trained this year.



Combined Compliance % for all
3 Levels of IPC Training
Up to 31.03.22

Compliance % by Subject Level up to 31.03.22

Competence Full Name	Headcount	Competencies Required	Competencies In-date	Compliance %
110|CSTF|Infection Prevention and Control Management Training - No specified renewal|	632	632	210	33.23%
NHS|CSTF|Infection Prevention and Control - Level 1 - 3 Years|	3679	3679	2873	78.09%
NHS|CSTF|Infection Prevention and Control - Level 2 - 1 Year|	6877	6877	4449	64.69%

Overall Combined Compliance % for each Staff Group up to 31.03.22

Staff Group	Headcount	Competencies Required	Competencies In-date	Compliance %
Add Prof Scientific and Technic	268	275	156	56.73%
Additional Clinical Services	1977	1980	1364	68.89%
Administrative and Clerical	2098	2107	1702	80.78%
Allied Health Professionals	698	803	542	67.50%
Estates and Ancillary	1222	1222	856	70.05%
Healthcare Scientists	184	200	174	87.00%
Medical and Dental	730	772	170	22.02%
Nursing and Midwifery Registered	3349	3822	2564	67.09%
Students	7	7	4	57.14%

Overall Compliance % for each ILG up to 31.03.22

ILG	Headcount	Competencies Required	Competencies In-date	Compliance %
110 Balance Sheet ILG	1	1	1	100.00%
110 Bank ILG	1	1	1	100.00%
110 Bridgend ILG	2636	2844	1867	65.65%
110 Corporate ILG	703	707	573	81.05%
110 Delivery Executive ILG	761	773	548	70.89%
110 Hosted Organisations ILG	68	69	55	79.71%
110 Merthyr & Cynon ILG	3297	3563	2271	63.74%
110 Rhondda Taf Ely ILG	3066	3230	2216	68.61%

Aseptic Non Touch Technique (ANTT)

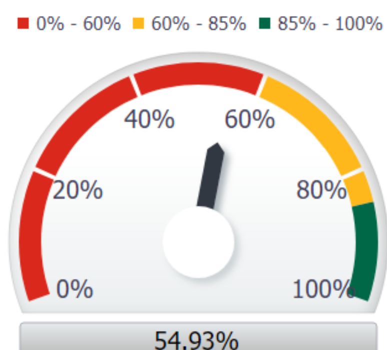
Aseptic Non Touch Technique (ANTT) is a comprehensive practice framework for aseptic technique used for all invasive procedures, from major surgery to maintenance of invasive devices and will affect every directorate and varying disciplines of staff.

All health board employees who perform aseptic procedures as part of their role must complete the ANTT e-learning package which is available via NHS learning Wales. Staff will then be competency assessed in their areas by designated ANTT trainers for the organisation.

The IP&CT have continued to coordinate and support the roll out of ANTT across the Health Board and plans to introduce ANTT training in Bridgend ILG has commenced. Responsibility for monitoring compliance and DOPS assessment has been handed to the ILG teams. The IP&CT will continue to offer support and assistance to provide training for ANTT assessors and with assessments.

The All Wales ANTT policy has been adopted by the UHB and a steering group has been set up to oversee the implementation which is ongoing in primary and secondary care.

Combined compliance % for Level 1 (e-learning) and Level 2 (workplace assessment) ANTT Training up to 31.03.22



Compliance Percentage for each of the three levels of ANTT training up to 31.03.22

Competence Full Name	Headcount	Competencies Required	Competencies In-date	Compliance %
110|MAND|Aseptic Non Touch Technique - Level 2 (Workplace Assessment) - 3 Years|	3568	3568	1095	30.69%
110|MAND|Aseptic Non Touch Technique - Level 3 (Assessor) - No Specified Renewal|	232	232	49	21.12%
NHS|MAND|Aseptic Non Touch Technique - 3 Years|	3803	3803	2954	77.68%

Combined Level 1 and Level 2 compliance % for each ILG up to 31.03.22

ILG	Headcount	Competencies Required	Competencies In-date	Compliance %
110 Bridgend ILG	124	244	97	39.75%
110 Corporate ILG	13	26	16	61.54%
110 Delivery Executive ILG	82	164	93	56.71%
110 Hosted Organisations ILG	6	12	1	8.33%
110 Merthyr & Cynon ILG	1973	3790	2046	53.98%
110 Rhondda Taf Ely ILG	1605	3135	1796	57.29%

10. Decontamination

External review

An external review of the decontamination infrastructure, governance arrangements, systems and processes and the management structure was completed in 2021. A report of the findings was presented to the Executive Team. The operational lead for decontamination is currently part of the role and responsibilities of the Deputy Lead IP&C Nurse post which is unsustainable and a risk for the HB. Further consideration is required to appoint a dedicated operational lead for decontamination as recommended in the external review.

Decontamination meetings

Local decontamination meetings have been set up in each of the ILG which provides assurance to the Decontamination committee.

POW Centralisation Scheme

The Strategic Outline Case submitted to Welsh Government has been approved and the Capital Planning team is in the process of appointing a design team to

take the project forward. It is critical for this work to progress as not continuing with this project could result in the Endoscopy department at the Princess of Wales Hospital losing their JAG accreditation.

Community Dental Services Instruments
The HB is progressing with plans to centralise decontamination of community dental instruments. The sterile services department at the Princess of Wales Hospital is decontaminating dental instruments from Dewi Sant Health Park.

Laryngoscope Handles
An updated Welsh Health Circular was published in 2020 which asks HBs to consider the environmental impact of switching to single use laryngoscope handles and asks for systems to be introduced to ensure reusable handles are decontaminated in accordance with manufacturer instructions using automated and validated systems. The Health Board continues to work towards the Welsh Health Circular.

Channelled Nasoendoscopes
The Health Board has purchased 9 channelled naso-endoscopes for use at the Princess of Wales and Royal Glamorgan Hospitals. Robust decontamination processes and standard operating procedures have been developed. The operational lead for decontamination will audit practice against the SOPs once the process has been established.

11. Challenges this year and priorities for 2022/23

Challenges faced in the past year:

- The day to day IPC work has been on hold in order for the team to focus on COVID response.
- Increased workload due to the pandemic and responding/supporting COVID outbreaks across CTM.
- Poor staffing levels due to long term sickness and vacancies.
- Unable to support primary care due to the lack of a dedicated IPC resource.
- Unable to achieve audit programme.
- Unable to progress with planned improvement work.
- The HB did not achieve the reduction expectations for reducing healthcare associated infections although fewer cases of MRSA bacteraemia and Klebsiella spp. Bacteraemia were reported.

Priorities for 2022/23 –

- Explore opportunities to introduce and provide a whole system approach for CTM across secondary, community and primary care services.
- A dedicated resource is critical to lead on the operational agenda for decontamination for Cwm Taf Morgannwg UHB.
- Appoint an IP&C Nurse to support the refurbishment and capital project schemes ongoing across the Organisation.
- Deliver a comprehensive IPC programme.
- Recommence improvement work to -
    - Develop and introduce a robust root cause analysis process for secondary and primary care to learn lessons from all cases of C.Difficile infection and preventable infections
    - Reduce preventable infections
    - Support improvements in IPC practice and roll out of ANTT
- Support maternity services to improve surveillance and reporting of C.section surgical site infections.
- Support clinical teams to reduce healthcare associated infections. Local reduction targets set and agreed with ILG Directors.

Annual and monthly reduction expectations for mandatory surveillance organisms, by ILG, 2022 – 2023

	National Target rate per 100,000	CTM targets, FY 2022/23		% reduction to meet target	Targets by ILG, FY 2022/23[+]					
					RTE		MC		Bridgend	
		n/year	n/month[+]		n/year	n/month	n/year	n/month	n/year	n/month
C. difficile	25	112.5	9	28	33	2	23	1	54	3
S. aureus bacteraemia	20	90.0	7	25	39	3	26	2	24	2
E. coli bacteraemia	67	301.4	25	25	102	8	97	8	93	7
Klebsiella spp. bacteraemia*	14	63.0	5	22	23	1	21	1	17	2
P. aeruginosa bacteraemia**	5	24.0	2	22	10	≤ 1	7	≤ 1	7	≤ 1

12. Appendix 1 – Annual COVID report

Summary

- Between 1st April 2021- 31st March 2022, 3,322 cases of COVID-19 were identified in hospitals across Cwm Taf Morgannwg University health board (CTMUHB). Of these 372 (11%) died within 28 days of the first positive specimen (Table 1).
- Following recovery from the second wave of the COVID-19 pandemic (September 2020 - April 2021), combined with the successful nationwide roll-out of the COVID-19 vaccine, case numbers remained low during the first quarter of the financial year. However, confirmed cases began to rise again in July 2021 (Figures 1, 2). This rise aligned with the identification of new COVID-19 genomic variants of concern - Delta, which dominated the third wave (July – December 2021) and Omicron (BA.1), which dominated the fourth wave (December 2021-April 2022). Further mutations of the Omicron variant (Omicron BA.2) in March 2022 saw a resurgence of COVID-19 cases at the end of the financial year. These COVID-19 variants displayed increased transmissibility when compared to previous dominant lineages.
- 130 COVID-19 outbreaks were identified in CTMUHB hospitals between 1st April 2021- 31st March 2022 (Table 3). Identification of nosocomial cases (admitted to hospital for >2 days at time of first positive specimen OR positive specimen with 14 days of discharge from site) followed the same trends as those observed in community onset cases (Figure 3).
- Please note, changes were made to the COVID-19 screening/isolation protocols during the financial year. The isolation period for confirmed cases and contacts was reduced from 14 days to 10 days in January 2022. Routine screening every five days for all inpatients (regardless of symptoms) was stood down on 24th March 2022.
- A COVID-19 nosocomial scrutiny panel was piloted in Rhondda Taf Ely Interim Locality Group between April - August 2021. The panel reviewed nosocomial COVID-19 cases who had died within 28 days of positive specimen. Outbreaks within the Royal Glamorgan Hospital from the second wave of the pandemic were reviewed, taking into account operational and infection prevention and control measures relevant at the time, and including available epidemiological and genomics evidence. Following guidance from the NHS Delivery Unit, this process will be expanded to review all outbreaks of COVID-19 in all CTMUHB hospitals since the start of the pandemic.

Data

Table 1: Summary of COVID-19 cases identified in CTMUHB hospitals, 1st April 2021- 31st March 2022

Site	RGH	PCH	POW	Community Hospitals	Total
Positive cases	1313	1024	828	157	**3322**
CAI	456	370	341	4	**1171**
Indeterminate	86	80	63	9	**238**
P-HCAI	73	72	63	13	**221**
D-HCAI	165	102	144	112	**523**
Deaths (within 28 days)	129	103	127	13	**372**

*RGH: The Royal Glamorgan Hospital; PCH: Prince Charles Hospital; POW: Princess of Wales Hospital; Community hospitals: includes Ysbyty Cwm Cynon (YCC), Ysbyty Cwm Rhondda (YCR), Glanrhyd Hospital (GH), Ysbyty George Thomas (YGT) and Ysbyty'r Seren (YS)

Figure 1: COVID-19 cases and deaths in all CTMUHB hospitals, 1st April 2021- 31st March 2022, 7-day rolling average

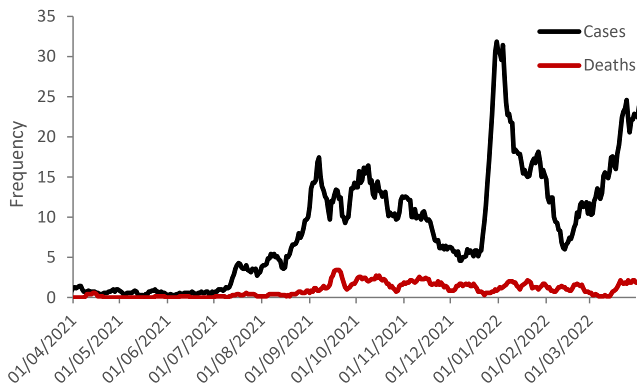
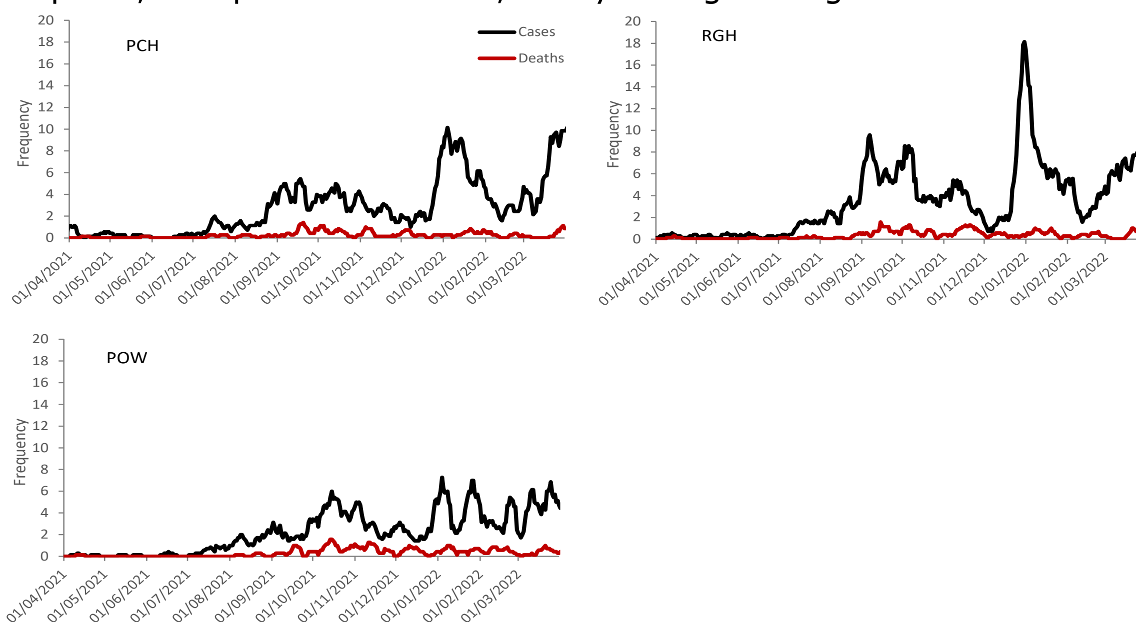


Figure 2: COVID-19 cases and deaths in district general hospitals in CTMUHB hospitals, 1st April March 2022, 7-day rolling average



*RGH: The Royal Glamorgan Hospital; PCH: Prince Charles Hospital; POW: Princess of Wales Hospital

Table 2: Nosocomial COVID-19 cases in CTMUHB hospitals, 1st April 2021 – 31st March 2022, by site and Interim Locality Group (ILG)**

	Rhondda Taf Ely ILG		Merthyr Cynon ILG		Bridgend ILG		
	RGH	YCR	PCH	YCC	POW	GH	YS
Nosocomial cases	365	45	303	74	292	10	7
Nosocomial deaths	68	4	44	7	58	0	0

* RGH: The Royal Glamorgan Hospital; YCR: Ysbyty Cwm Rhondda; PCH: Prince Charles Hospital; YCC: Ysbyty Cwm Cynon; POW: Princess of Wales Hospital; GH: Glanrhyd Hospital; YS: Ysbyty'r Seren.

** Includes cases identified post-discharge (i.e. positive specimen in the 14 days after discharge from hospital. Excludes patients for whom PCR tests initially detected low-levels of SARS-CoV-2 RNA, but repeat tests did not detect RNA.

Table 3: Summary of patient cases linked to COVID-19 outbreaks in CTMUHB hospitals, 1st April 2021 – 31st March 2022, by site and Interim Locality Group (ILG)

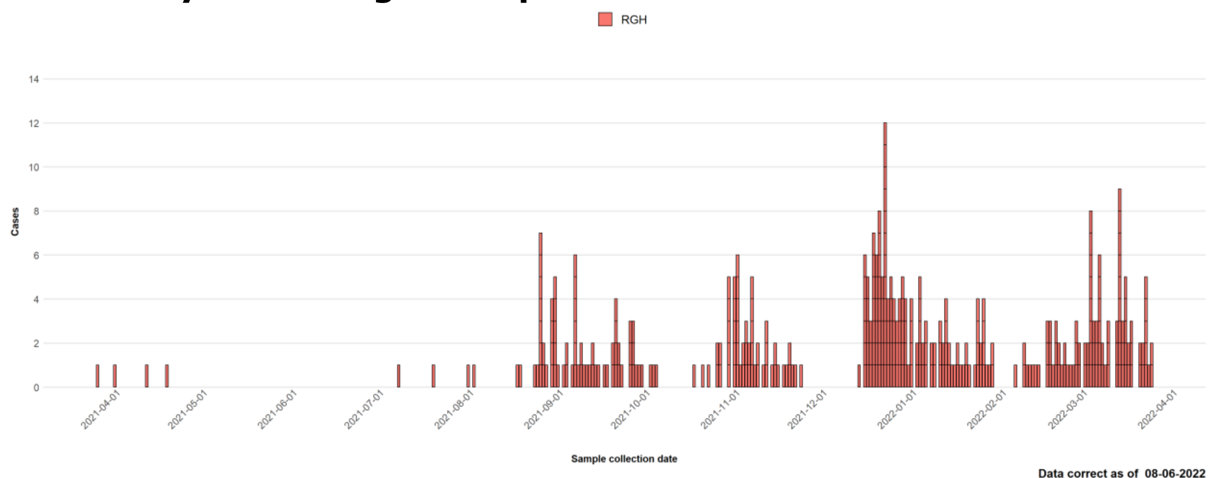
	Rhondda Taf Ely ILG		Merthyr Cynon ILG		Bridgend ILG		
	RGH	YCR	PCH	YCC	POW	GH	YS
Outbreaks identified	42	5	38	6	36	1	2
Patient cases linked to outbreaks	331	39	262	66	256	4	5
Average cases per outbreak (range)	8 (2-38)	8 (2-14)	7 (2-25)	11 (3-17)	7 (2-24)	4 (4-4)	3 (2-3)
Patient deaths (within 28 days of positive specimen)	60	4	38	5	53	0	0
Average deaths per outbreak (range)	2 (1-9)	1 (1-2)	2 (1-5)	1 (1-2)	3 (1-9)	0 (0-0)	0 (0-0)

* RGH: The Royal Glamorgan Hospital; YCR: Ysbyty Cwm Rhondda; PCH: Prince Charles Hospital; YCC: Ysbyty Cwm Cynon; POW: Princess of Wales Hospital; GH: Glanrhyd Hospital; YS: Ysbyty'r Seren.

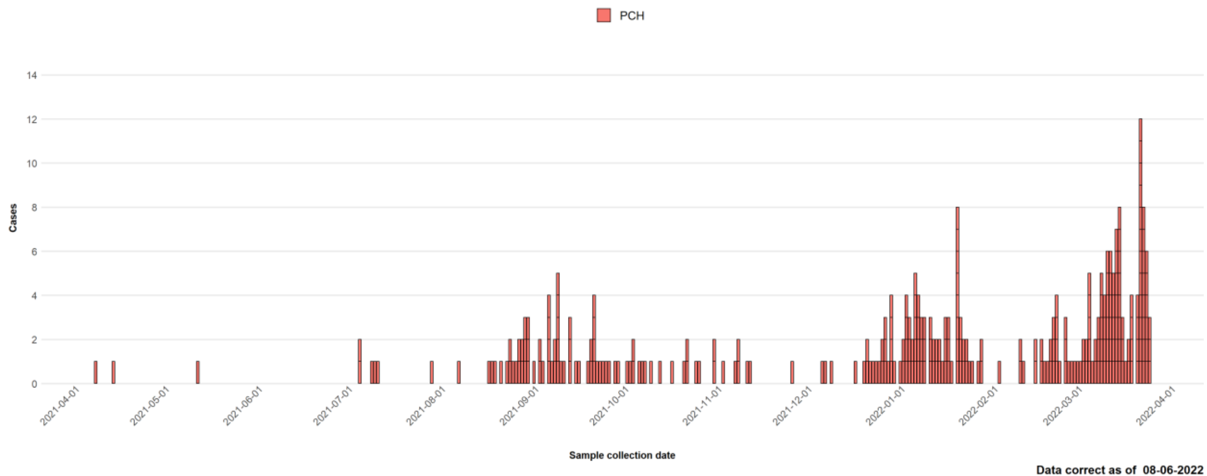
** Includes cases identified post-discharge (i.e. positive specimen in the 14 days after discharge from hospital. Excludes patients for whom PCR tests initially detected low-levels of SARS-CoV-2 RNA, but repeat tests did not detect RNA.

Figure 3: Epidemic curve of nosocomial COVID-19 cases identified in district general hospitals in CTMUHB, 1st April 2021 – 31st March 2022.

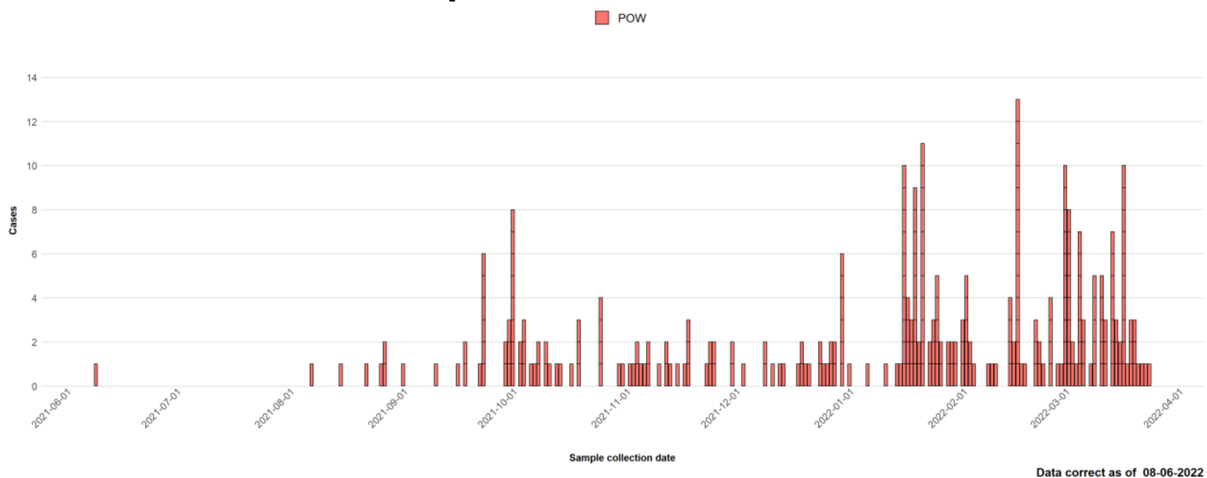
A: The Royal Glamorgan Hospital



B: Prince Charles Hospital



C: Princess of Wales Hospital



Notes on interpretation

1. Data extracted from ICNet, correct as at 08:00, 08/06/2022
2. Individuals have been de-duplicated by episodes of infection. An episode period of 90 days is applied to individuals tested for SARS-CoV-2. All tests with the same result within this time period have been de-duplicated.
3. Inpatient and discharged patients determined by availability of corresponding dates on ICNet. Please note that not all patients presenting at a site will be admitted to hospital.
4. Data from CTUs and other testing sites in the community (such as prisons, primary care practices, etc.) have not been included in this report.
5. The PHW definitions of Healthcare associated COVID-19 infection have been applied;
    a. Community associated: Symptoms present at admission or onset within 1-2 days of admission
    b. Indeterminate association: Symptom onset on day 3-7 after admission
    c. Probable healthcare-associated infection (HCAI): Symptom onset on day 8-14 after admission

   d. Definite HCAI: Symptom onset after day 14 of admission

   Date of admission and date of positive specimen are used to assign patient infections to these categories, as available on ICNet.

6. Deaths in COVID patients have been included if death has occurred within 28 days of first positive swab or within 7 days of death if swab was collected post-mortem.
7. On 24th March 2022, changes were made to the COVID-19 testing regime in Welsh hospitals following issue of the Welsh Health Circular WHC/2022/011. From this date, patients were tested for COVID-19 in the following scenarios: (i) all admissions to hospital; (ii) Inpatients with symptoms indicative of a respiratory/COVID-19 infection during admission; (iii) all inpatients due to be discharged to a care home. Routine asymptomatic testing of inpatients was halted and contacts of known cases to be screened for COVID-19 only if they developed symptoms