

Analysis Method Notice

The rate of laboratory confirmed *S.aureus* bacteraemia cases per 100,000 of the HB population

This notice describes an Analysis Method that has been developed for use in the production of published national outcome indicators, performance measures and/or currencies, which are derived directly from NHS Wales data.

The Analysis Method has been reviewed by the Analysis Methodologies Group and its output submitted to the Welsh Information Standards Board (WISB) for potential accreditation.

*It should be noted that, where the data flow on which the analysis is being undertaken has not been reviewed by WISB (see 'Status of WISB Data Standards Assurance' below), accreditation of the analysis method **cannot** be interpreted as an approval of the underlying data standards or the quality of the data used.*

It is recognised that formal review and/or assurance of the data flow may have been undertaken by other bodies, where those data are being formally published; for example, as 'Official Statistics'. In such circumstances, users of this method are advised to contact the relevant organisations should they require further information on the underlying quality of the specified data source.

For further details about the group, including Terms of Reference and membership, please visit the following website:

<http://howis.wales.nhs.uk/sites3/page.cfm?orgid=742&pid=56696>

WISB Reference: ISRN 2018 / 002

Please address enquiries about this Analysis Method the NHS Wales Informatics Service Data Standards Team.

E-mail: data.standards@wales.nhs.uk / Tel: 029 2050 2539

WISB Analysis Method Appraisal Assessment	Accredited This Analysis Method has been appraised by WISB and is felt to: <ul style="list-style-type: none"> • Meet the specified indicator requirement, in that it is suitable for its calculation / derivation; • Is reproducible by organisations, where appropriate.
WISB Analysis Method Appraisal Outcome(s)	

Status of Data Standards Assurance	WISB Reviewed The data used in this Analysis Method are based on data item standards that have been through the Information Standards Assurance Process.
WISB Decision	Approved
Data Standards Assurance Outcome(s)	

Indicator

The rate of laboratory confirmed *S.aureus* bacteraemia cases per 100,000 of the HB population

Target:

2017/18 reduction expectations are HB specific as follows:

Abertawe Bro Morgannwg UHB, Betsi Cadwaladr UHB, Cardiff & Vale UHB, Cwm Taf UHB and Hywel Dda UHB - a rate of no more than 20 cases per 100,000 of the HB population.

Aneurin Bevan UHB - a rate of no more than 19 cases per 100,000 of the HB population.

Powys Teaching HB and Velindre NHS Trust do not have specific reduction expectations due to the small number of cases per month and Velindre NHS Trust does not have a HB population, but they are both included in the overall Wales numerator data.

Rationale / Context

One of the key actions of the Working Together to Reduce Harm – The Substance Misuse Strategy for Wales (2008 – 2018) is to prevent harm by helping individuals to resist or reduce substance misuse and to support substance misusers and their families. A mechanism to achieve this outcome is to provide individuals and their families with easy access to information and advice about substance misuse and services (including where to access further support or treatment). An indicator of service providers working together to ensure that information about drugs and alcohol is available for substance misusers and their families or carers is the number of calls to the Wales Drug and Alcohol Helpline (DAN 24/7).

The DAN 24/7 Helpline is a single point of contact for anyone in Wales wanting further information or help relating to drugs and alcohol. The helpline assists individuals, their families, carers and support workers to access appropriate local and regional services. This is free helpline operating across Wales, 24 hours a day. It is a service hosted by Betsi Cadwaladr University Health Board following funding from Welsh Government.

Data Source(s)

DataStore (via the Welsh Healthcare Associated Infection Programme, Public Health Wales)

ONS Mid-Year Population Estimates

Definitions:**Definitional Guidance:****Data Items:**

n/a

Terms:

n/a

Detailed Specification

Data from each of the laboratory information systems (LIMS) across Wales is automatically copied over once a day into DataStore, a Public Health Wales data warehouse system.

The *S.aureus* bacteraemia test results are extracted from DataStore on a daily basis and transferred to a bespoke database for Healthcare Associated Infections data. There is additional manual data entry into the database of samples from locations in Powys Teaching HB processed in microbiology laboratories in England. These are provided by in the infection control team in Powys via a monthly email

S.aureus bacteraemia data is extracted using the following criteria:

- *S.aureus* was identified from a blood culture sample.
- The sample was not taken from a patient in a private hospital, a privately run dialysis unit or post-mortem.
- If the *S.aureus* blood culture sample was resistant to Methicillin or equivalent used in laboratory testing protocol (currently Cefoxitin is used) it is classified as MRSA (Methicillin Resistant *Staphylococcus aureus*), otherwise it is classed as MSSA (Methicillin Sensitive *Staphylococcus aureus*)

Duplicate records are flagged within the database (known as 'de-duplication') and are excluded from calculations. For *S.aureus* bacteraemia this is carried out on the basis of 14 days i.e. any positive test occurring within 14 days of another positive *S.aureus* bacteraemia test from the same patient is excluded.

HB staff are given the opportunity to audit their data, identifying quality assurance samples, other sample types processed in blood culture bottles, duplicates that have not been identified because they have gone into the laboratory system with 2 different patient identifiers etc. HB staff can either do this on an on-going basis using an online audit system or provide all required changes at the end of the financial year. Because of these differing audit processes all data is marked as provisional until Public Health Wales produce end of financial year figures in May.

Calculation:

Numerator

Cumulative number of *S.aureus* positive blood culture samples from patients from primary and secondary care NHS locations within Wales (Abertawe Bro Morgannwg UHB, Aneurin Bevan UHB, Betsi Cadwaladr UHB, Cardiff and Vale UHB, Cwm Taf UHB, Hywel Dda UHB, Powys Teaching HB and Velindre NHS Trust) with a specimen date for the current financial year.

Denominator

Mid year population estimates for numbers of persons resident in each HB.

N.B. The mid year population estimates from the previous year are used until the estimates for the current year become available.

Reporting Format / Frequency

Reporting Frequency	Monthly
Time Delay of Reported Data?	Approximately 7 calendar days after month end. A reporting scheduled is supplied by PHW each year detailing exact dates reports will be available. DataStore downloads to the HCAI database daily at 7am. The <i>S.aureus</i> bacteraemia report is produced on the data available approximately 3 working days prior to the scheduled report date. All data is provisional until approximately two months after the end of the financial year.

Discussion Points / Areas for Future Development

This section details any areas the Analysis Methodologies Group felt needed further consideration / review by the 'owner' of the method.

Appendix A – Additional Information

n/a

Appendix B – SQL Code (where applicable)

n/a