

Data driven improvement

Data and Dashboards available to support Antimicrobial Resistance improvement

Presentation for SPS Mini Conference – Antimicrobial Stewardship (AMS) – unlocking the potential

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The data landscape in AMR

- **AMR-related data is currently presented via a multitude of dashboards, reports and other data tools that are owned by a range of organisations.**
- It is recognised that getting up to speed on so many different tools is a key challenge faced by many colleagues requiring data and intelligence related to AMR.
- To address this, a task and finish group comprising national workstream leads commenced in July-2022. This group aims to develop an understanding of the data and reporting needs of colleagues working in a wide range of roles in the AMR space.
- Tailored support and guidance are being developed to facilitate easy access to the most important trends and figures relevant to each role, **expected to be published on the AMR futureNHS workspace in the coming weeks.**
- We are also developing slide packs that make a small number of the most important metrics related to Antimicrobial Resistance readily available in a high-level report. The reports will be generated each month at national, regional and ICB level.

Keep an eye out for the slide packs and dashboard guidance docs coming soon to the futureNHS workspace:

[AMR – Data Workstream - Antimicrobial Resistance Programme - FutureNHS Collaboration Platform](#)

Please contact england.prevention-amr@nhs.net for further information

Data driven improvement – which data dashboards are available to use, how to access, and why

- Data driven improvement – there are a variety of NHS data dashboards supporting delivery of both the UK AMR National Action Plan ambitions for human health and the NHS Long Term Plan AMR Programme. These data dashboards vary by purpose and focus. For example, alignment to clinical pathways such as UTI, or patient populations such as children, or organisational place of care such as hospital admissions for sepsis and infection. All support assurance and improvement activity, and can be used individually or collectively
 - **Identifying opportunity for improvement** - many of the data dashboards are intended to support improvement at different NHS organisational levels. Organisations can identify opportunities for improvement looking at variation both between organisations, and within organisations over time; and seek the shared learning to adopt and adapt. Dashboard data also support reporting for assurance
 - **Drill down** – to the detail to better understand variation; such as length of stay by age in hospital admissions associated with a specific infection such as pneumonia; or rates of antibiotic prescribing by gender, or change between time periods
 - **Inform local strategy** – combine data from these data dashboards to 'tell the story'; for example, what contributes to the burden of UTI at an integrated care system level? Where to prioritise improvement? What benefits will this deliver for the organisation / population /patient? What did/do other organisations do?

NHS England Oversight Framework 2022/23 dashboard reporting Antimicrobial Resistance metrics 44a and 44b

NHS England reporting NHS Oversight Framework 2022/23 Antimicrobial Resistance Metrics 44a and 44b

Business Services Authority

Back to Home

Integrated Care Board (ICB) Menu

Information

National view trend charts for both NHS OF AMR metrics

- Number of ICBs who have met / not met each of the metric targets.
- Direction of travel from previous time period.
- Number of ICBs who have met both / have not met either metric target.

Number of antibacterial items.
Antibacterial items / STAR-PU indicator.
Number of co-amoxiclav, cephalosporins & quinolones items.
% Co-amoxiclav, cephalosporins & quinolones indicator.

Antibiotics/STAR-PU

- 12 month rolling ICB data
- ICB Trend Chart
- ICBs who have met target
- ICBs who have not met target

Co-amoxiclav, cephalosporins & quinolones

- 12 month rolling ICB data
- ICB Trend Chart
- ICBs who have met target
- ICBs who have not met target

- **How to access?**

Via the AMR FutureNHS workspace [here](#)

- **Why use?**

Reporting ICB performance against NHS Oversight Framework

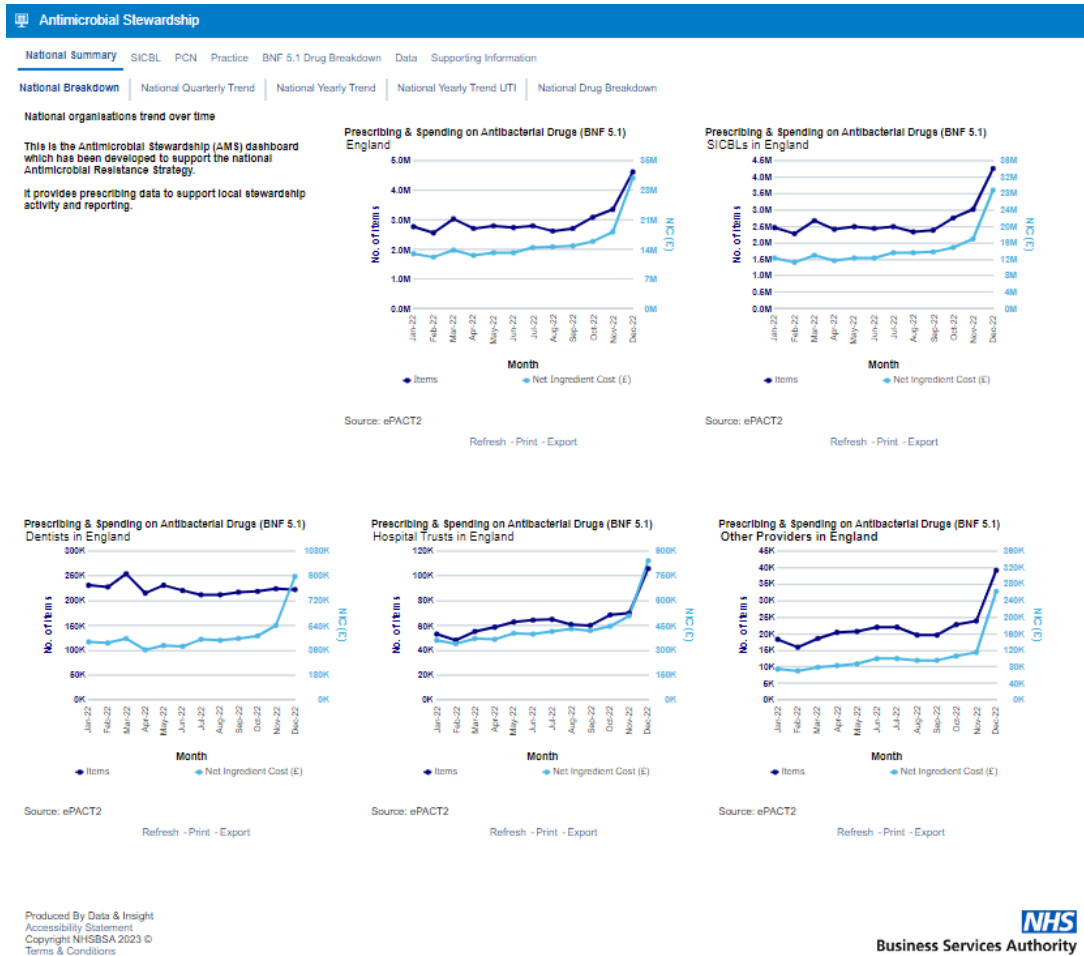
This is the data feed to the NHS Oversight Framework dashboard

- **Good for**

ICB performance and assurance reporting for the NHS Oversight Framework must use this dashboard

Monthly publication

NHS BSA ePACT2 Antimicrobial Stewardship Dashboard



- **How to access?**

Via NHSBSA ePACT2 [here](#) registration required

- **Why use?**

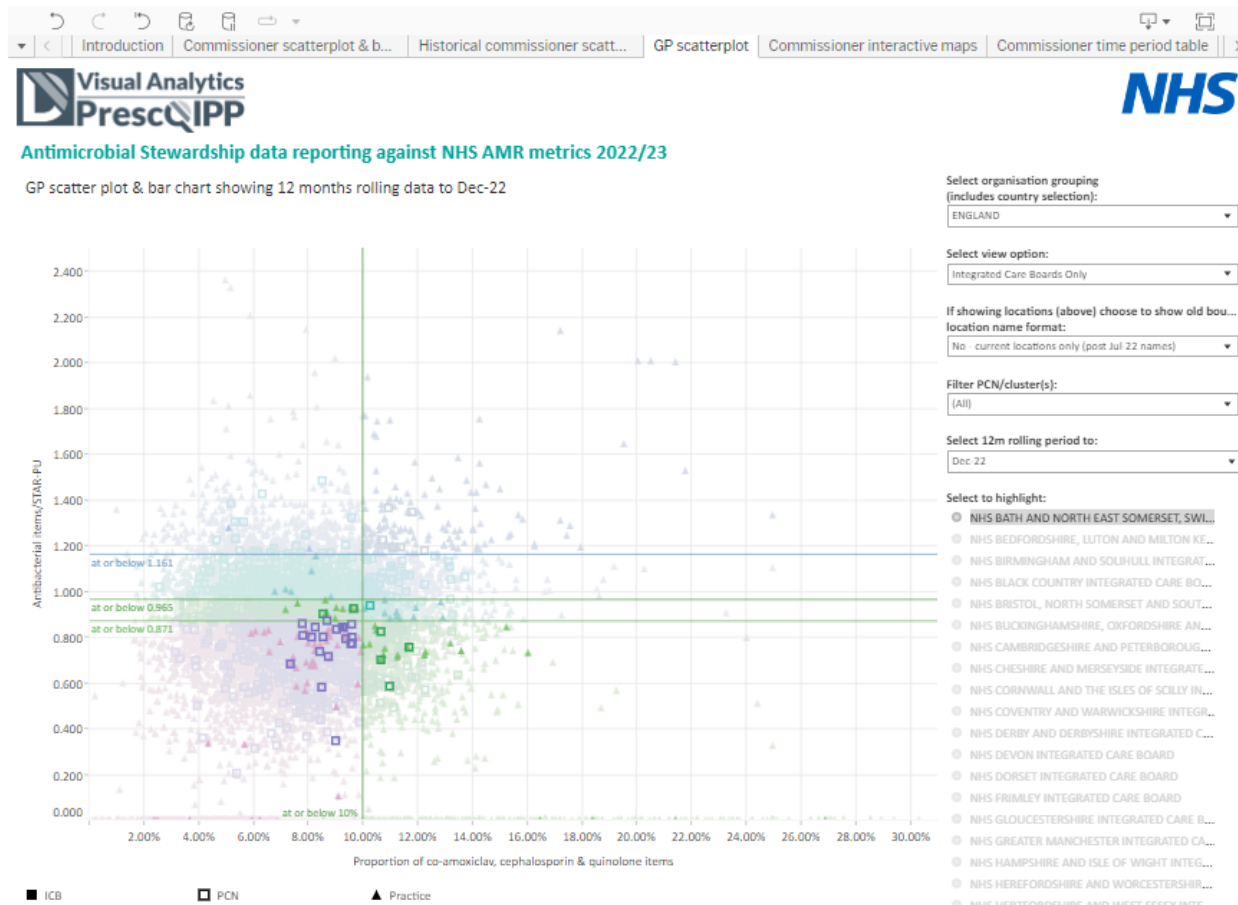
Reporting performance against NHS Oversight Framework metrics at National, SICBL, PCN and Practice level over time

Reports antibiotic item prescribing count over rolling 12 months

- **Good for**

Reporting NHS Oversight Framework metrics at SICBL, PCN and GP practice level over time. Trending change in selected antibiotic item count. Monthly publication.

PrescQIPP AMS Visual Analytics to support Antimicrobial Stewardship activity FY 2017/18 onwards to FY 2022/23



- **How to access?**

Open data via [PrescQIPP AMS Hub](#)

- **Why use?**

Open access. Wide range of pre-set data viz reports. Filters allow user to select and highlight organisations and download images. Reports selected antibiotic item prescribing count over rolling 12 months. Do not use for ICB NHS Oversight Framework performance assurance reporting.

- **Good for**

Data for improvement with ready to use scatter/trending plots coloured by performance against NHS Oversight Framework metric targets at ICB, PCN and GP organisational level

PrescQIPP AMS Visual Analytics to support NHS antimicrobial stewardship activity during COVID-19 pandemic

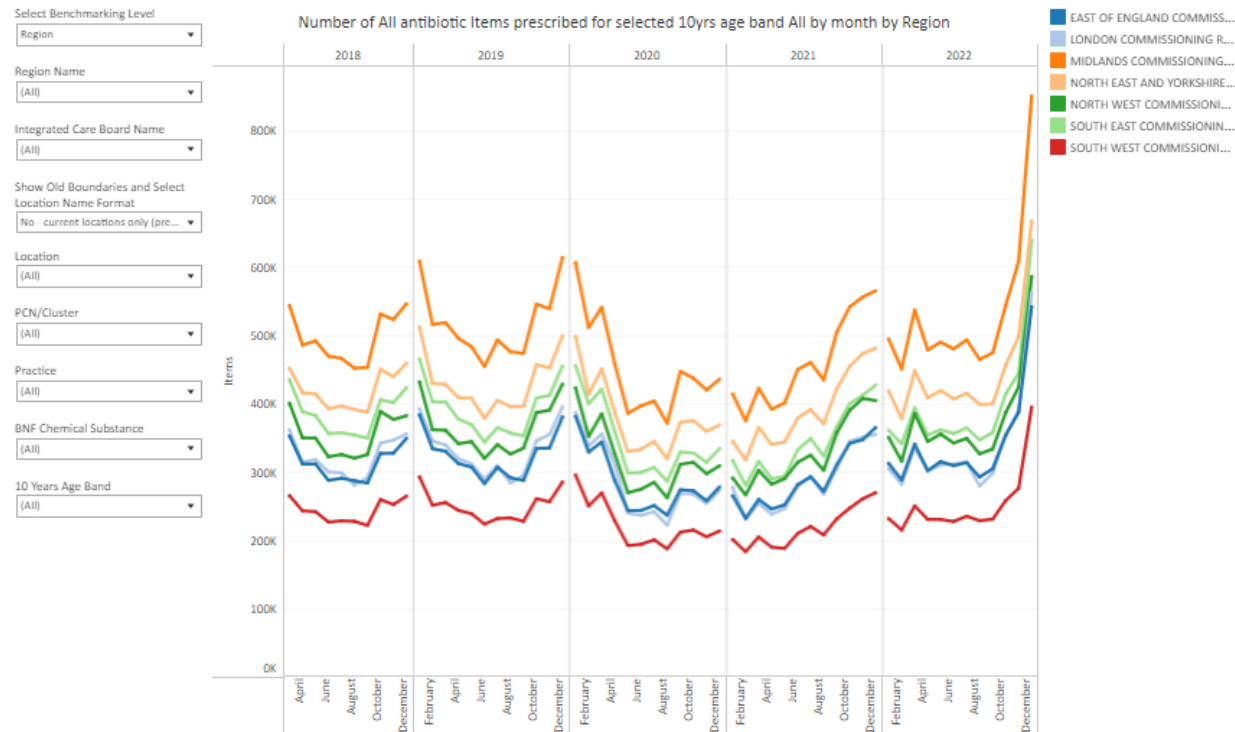
[Home](#) > [Our resources](#) > [Webkits](#) > [Antimicrobial stewardship](#) >

AMS Visual Analytics to support NHS antimicrobial stewardship activity during COVID-19 pandemic

Introduction | All items by organisation | All items by 10yrs age band | Amoxicillin items in children ag... | Antibiotics used to treat UTI in ... | Antibiotics used to treat lowe >



Antimicrobial Stewardship data reporting NHS antimicrobial activity during COVID-19 pandemic



- **How to access?**

Open data via [PrescQIPP AMS Hub](#)

- **Why use?**

Open access. Wide range of pre-set data viz reports. Filters also allow user to select and highlight by antibiotics, age band, organisation

Reports primary care antibiotic prescription item counts monthly by selected NHS organisation

Good for

Monitoring monthly trending activity from April 2018 at Region, ICB, PCN and GP organisational level.
Evidences impact of pandemic on antibiotic use in primary care

PrescQIPP Optimising antimicrobial use dashboard

Home > Our resources > Webkits > Antimicrobial stewardship > Optimising Antimicrobial Use Dashboard

Introduction | Using this dashboard | Stacked bar benchmarking % i... | Stacked bar benchmarking nu... | Stacked bar benchmarking % i... | Trend number of items by < >



Optimising Antimicrobial use dashboard

Select Benchmarking Level
this is the level at which you want...
compare the organisations selected
Integrated Care Board

Region Name
SOUTH WEST COMMISSIONING...

Integrated Care Board Name
(All)

Show Old Boundaries and Select
Location Name Format
No - current locations only (pre...

Location
(All)

PCN/Cluster
(All)

Practice
(All)

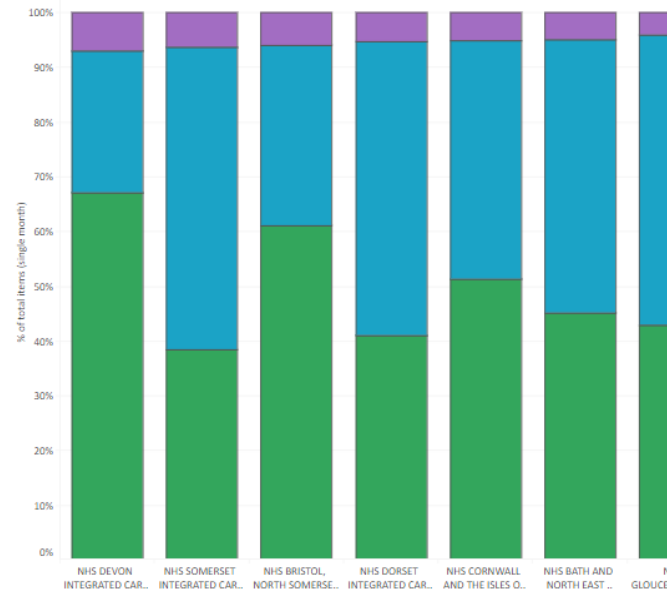
Select Duration Indicator
Amoxicillin 500mg capsule

Select Sort Order (largest to small...
All quantities excluding Q=15 a...

Select Monthly Prescribing Type
single month

Age Band Years
(All)

Proportion of total Amoxicillin 500mg capsule items prescribed by duration December 2022 (single month)



Highlight Quantity
 All quantities excluding Q=15 ...
 7 days (Quantity=21)
 5 days (Quantity=15)

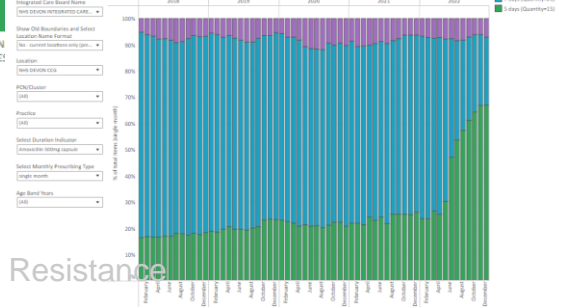
Highlight Benchmarking
 NHS DEVON INTEGRATED CA...
 NHS SOMERSET INTEGRATED...
 NHS BRISTOL, NORTH SOME...
 NHS DORSET INTEGRATED CA...
 NHS CORNWALL AND THE ISL...
 NHS BATH AND NORTH EAST ...
 NHS GLOUCESTERSHIRE INTE...

Introduction | Using this dashboard | Stacked bar benchmarking % i... | Stacked bar benchmarking nu... | Stacked bar benchmarking % i... | Trend number of items by < >



Optimising Antimicrobial use dashboard

Proportion of Amoxicillin 500mg capsule items prescribed by duration by selected age band 2018 to December 2022 (single month)



• How to access?

Open data via [PrescQIPP AMS Hub](#)

• Why use?

Open access. Wide range of pre-set data viz reports. Only dashboard reporting duration by specific antibiotic.

Reports primary care amoxicillin 500mg capsule prescribing by quantity aligned to duration of use. Intended to promote 5day duration.

Good for

Monitoring adherence to NICE antimicrobial prescribing guideline recommendation for amoxicillin 500mg tds for 5 days for most RTIs

NHS BSA ePACT2 Antimicrobial Stewardship Dashboard Children

Antimicrobial Stewardship - Children

National Region ICB SICBL PCN Practice Datasets Supporting Information

ICB in National ICB in Region

* Indicator ASC02 - Number of children prescribed antibiotics per 1,000 children * Period Type Monthly

* Age Band (Years) 0-4 * Period Dec-22 * ICB NHS BRISTOL, NORTH SOMERSET AND SOUTH GLOUCE

Apply

Children prescribed antibiotics in the 0-4 years age band in NHS BRISTOL, NORTH SOMERSET AND SOUTH GLOUCESTERSHIRE INTEGRATED CARE BOARD: Dec-22

Quartile 1 - Lowest 25% **100** Prescribing of antibacterial items per 1,000 children

Quartile 1 - Lowest 25% **89** Number of children prescribed antibiotics per 1,000 children

4,571 Number of children prescribed antibiotics

4,354 Number of children prescribed one antibiotic

217 Number of children prescribed two or more antibiotics

ASC02 - Number of children prescribed antibiotics per 1,000 children
Children prescribed per 1,000 children on registered list size in the 0-4 years age band in NHS BRISTOL, NORTH SOMERSET AND SOUTH GLOUCESTERSHIRE INTEGRATED CARE BOARD compared to all ICBs: Dec-22

Indicator Value: **89** ICB Value, **133** National Value

ASC02 - Number of children prescribed antibiotics per 1,000 children
Monthly trend over time for children prescribed per 1,000 children on registered list size for each age band in NHS BRISTOL, NORTH SOMERSET AND SOUTH GLOUCESTERSHIRE INTEGRATED CARE BOARD

Indicator Value: 0-4 Age Band (Years), 5-9 Age Band (Years), 10-14 Age Band (Years)

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* Indicator ASC02 - Number of children prescribed antibiotics per 1,000 children * Period Type Monthly

* Age Band ASC01 - Prescribing of antibacterial items per 1,000 children SOMERSET AND SOUTH GLOUCE

ASC02 - Number of children prescribed antibiotics per 1,000 children SOUTH GLOUCESTERSHIRE INTEGRA

ASC03 - Number of children prescribed multiple antibiotics

ASC04 - Prescribing of specific antibiotic items per 1,000 children

ASC05 - Prescribing of UTI related antibiotic items per 1,000 children

• How to access?

Via NHSBSA ePACT2 [here](#) registration required

• Why use?

Improve antibiotic stewardship in the population of children.

Includes a count and proportion of children prescribed antibiotics in primary care by 5Y age bands, by month/12 month. Trends from 2018. Selection by specific antibiotic(s)

• Good for

Improvement in a defined population known to have high antibiotic use. Supports penicillin allergy delabelling improvement.

NHS BSA ePACT2 Antimicrobial Stewardship Dashboard RightCare UTI Focus Pack



This dashboard is in redevelopment

The screenshot shows a web interface for 'Urinary Tract Infection data packs'. The breadcrumb trail is 'RightCare - National > Data packs > Urinary Tract Infection data packs'. The main heading is 'Urinary Tract Infection data packs'. Below this, there are three columns of text. The first column describes the purpose of the data packs: 'Urinary Tract Infections: benchmark, compare and identify opportunities for local systems to improve and reduce unwarranted variation'. It explains that the packs enable local health systems to identify opportunities for further improvement in the safe and effective management of UTI in primary care, in particular in older people, and builds on the improvement delivered by the NHS 2019/20 CQUIN scheme. It also mentions that the packs are personalised for each CCG, provide an opportunity to assess and benchmark current systems, and are supported by a new NHS Business Services Authority (NHSBSA) ePACT2 dashboard. The second column is titled 'Antibiotic prescribing indicators ePACT2 dashboard with latest data to identify opportunities for improvement'. It states that the RightCare packs and associated ePACT2 dashboard allow commissioners and PCNs to identify opportunities for improvement and risk reduction associated with:

- Primary care prescribing of antibiotics to treat lower UTI, with a focus on prescribing in people aged 70+ years using new prescribing indicators
- Inpatient admissions for UTI, including readmissions
- E.coli bloodstream infections
- Admissions from care homes
- Urinary catheter use in the community

The third column states that this resource has been developed in collaboration with the Antimicrobial Resistance (AMR) team, Public Health England and the NHS Business Services Authority. It also mentions that to support NHS antimicrobial stewardship improvement activity, the NHSBSA has created a new ePACT2 dashboard that reports the RightCare primary care antibiotic prescribing indicators found in this product on a 12-month rolling basis at National, Regional, ICS, CCG, PCN and GP practice level. At the bottom of the dashboard, there is a green button that says 'Access the RightCare UTI Data Packs here'.

• How to access?

Via NHSBSA ePACT2 [here](#) registration required. RightCare UTI data packs via FutureNHS [here](#)

• Why use?

Aligns to the primary care antibiotic prescribing metrics in use in RightCare UTI data pack which focus on improving the management of lower UTI in people aged 70+Y in primary care

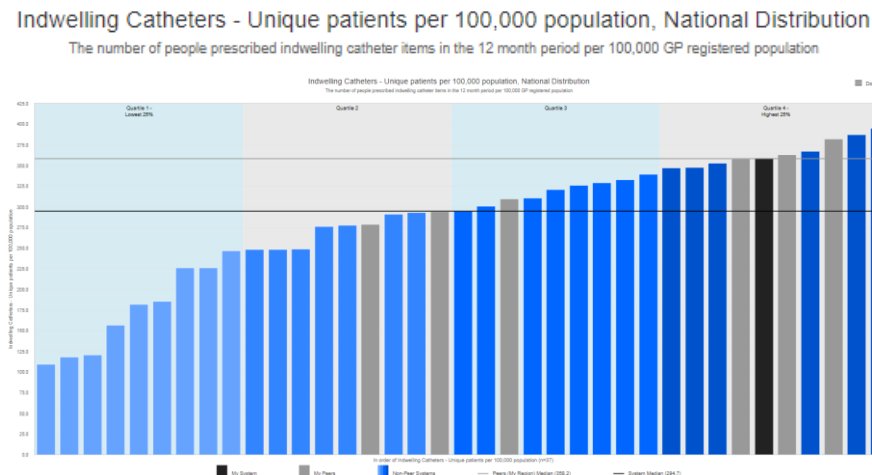
• Good for

Improvement in a defined population known to have higher risk of antibiotic resistant UTI, and highest burden of Gram-negative blood stream infections (GNBSI).

NHS England Model Health System AMR Dashboard - UTI

Urinary Tract Infection

- Risk Factors →
- Antibiotic prescribing in primary care →
- Catheter prescribing in primary care →
- Community E.coli Positive Urine susceptibility testing →
- A&E attendances →
- Inpatient admissions →
- E.coli and Klebsiella bacteraemia rates →
- Inequalities →



- **How to access?**

Via Model Health System [here](#) registration required

- **Why use?**

Improvement of the UTI pathway at an integrated care system level. Reports a wide variety of UTI related metrics based on routine NHS data. Includes metric reporting by gender

- **Good for**

System level improvement in a defined population known to have higher risk of antibiotic resistant UTI, and highest burden of Gram-negative blood stream infections (GNBSI). Reports population use of urinary catheters

AMR Dashboard



Antimicrobial Resistance Data and Analysis Dashboard Tool

The core aim of the AMR Dashboard Tool is to provide a mechanism for the NHS to identify variation in the patterns of infection, treatment, and patient outcomes across different care settings and pathways.

The screenshot shows the AMR Dashboard interface with the following sections:

- DASHBOARDS:**
 - Antimicrobial Resistance:** Explore trends in resistance levels to key antibiotics in five bloodstream infections.
 - Hospital Admissions:** Review hospital admissions for patients diagnosed with bacterial infection and/or sepsis.
 - Prescribing Trends in Primary Care:** Explore prescribing trends in primary care for NOF 44a/b, Broad-spectrum, and UTI.
 - Multiple Prescribing in Primary Care:** Analysis of patients prescribed multiple antibiotics by age, sex, and geography.
- DOCUMENTATION:**
 - Guidance:** Guidance and Support for the AMR Workspace.
 - Change Log:** Review updates to the AMR Workspace.
- EXTERNAL LINKS:**
 - User Feedback Survey:** Submit feedback on using the AMR Dashboard Tool.
 - FutureNHS:** AMR Data Workstream Guidance and Support.
 - National Homepage:** Return to the National Data Platform Homepage.

- **How to access?**

[Link to the AMR dashboard](#)

[Instructions on how to obtain access](#)

- **Why use?**

For data related to hospital admissions and outcomes for bacterial infections and sepsis

For resistance levels for key drug-bug combinations by age and sex

For prescribing patterns by deprivation and at the patient-level (number of antibiotic prescriptions per year)

- **Good for**

Detailed metrics, granular exploration and drill down by demographics

NHS Standard Contract performance reporting

NHS AMR Future NHS Workspace

CCG2: Appropriate antibiotic prescribing for UTI in adults aged 16+ CQUIN

- **How to access?**

Via Improvement and Assurance schemes [here](#)

- **Why use?**

Hosts CCG2 CQUIN scheme resources and reports quarterly performance for all Trusts who adopted the scheme

- **Good for**

CCG2 CQUIN scheme resources and performance reporting

NHS Standard Contract requirement to reduce broad spectrum antibiotic consumption

- **How to access?**

Via Improvement and Assurance scheme [here](#)

- **Why use?**

Hosts the baseline data, reduction targets, and quarterly performance for all Trusts in scope

- **Good for**

Trust performance reporting

RxInfo Define and UKHSA Fingertips data

RxInfo Define

- **How to access?**

Via Rx-Info web site [here](#) registration required

- **Why use?**

Supports antimicrobial stewardship improvement within NHS Trusts including delivery of NHS Standard Contract requirement to reduce antibiotic consumption. Do not use for Trust NHS Standard Performance assurance reporting

Good for

Monthly access to data and pre-set reports that support delivery of the NHS Standard Contract requirement to reduce hospital antibiotic consumption

Fingertips

- **How to access?**

Via the Office for Health Improvement and Disparities (OHID) web site [here](#) open access

- **Why use?**

Open access. Reports metrics to support delivery of the UK AMR National Action Plan ambitions to reduce antibiotic consumption, Healthcare Associated Infections, and drug-bug resistance,

Good for

Benchmarking NHS Trust, ICB and GP practice activity, including Drug-bug susceptibility data and for monitoring trends in activity over time

Any questions?

For more information, please subscribe to the **AMR NHSFutures workspace** (click on the link below) where you will find additional guidance and information relating to all data tools as well as core programme information:

[AMR – Data Workstream - Antimicrobial Resistance \(AMR\) Programme - FutureNHS Collaboration Platform](#)

For queries please contact:

england.prevention-amr@nhs.net

Or contact elizabeth.beech@nhs.net or christine.pinkard@nhs.net directly