Recent trends on antibiotic use in Scotland

SAPG AMT Network
May 2022 update
Trends in antibiotic use in the community in Scotland during the COVID-19 pandemic.
Method

Data Source
- PIS electronic prescription data
- Available two days after Rx generated

Antibiotic Grouping

Respiratory antibiotics
- Amoxicillin
- Azithromycin
- Clarithromycin
- Co-amoxiclav
- Doxycycline

Key Outcome Measure
- Weekly number of prescriptions for antibiotics in 2022 compared with number in 2019, 2020 and 2021
Results: Respiratory antibiotics
Results: Amoxicillin

Results: Clarithromycin
Results: Doxycycline

Results: Co-amoxiclav
Trends in dental antibiotic use in Scotland.
Method

Data Source
• PIS data on dispensed (paid) prescriptions (all primary except dental)
• Available 3 months in arrears

Total antibiotics

Specific antibiotics
• Amoxicillin
• Metronidazole
• Pen V

Key Outcome Measure
• Monthly number of prescriptions for antibiotics in 2022 compared with number in 2019, 2020 and 2021
Results: dental antibiotic use
Results: dental amoxicillin use

Number of Paid Amoxicillin Items for dental (GP14) forms - Scotland

-28%
Results: dental phenoxymethylenicillin use
Results: dental amoxicillin and phenoxyemethylpenicillin use

Number of Paid Amoxicillin and Phenoxyemethylpenicillin Items for dental (GP14) forms - Scotland

- 2019
- 2020
- 2021
- 2022
Results: dental metronidazole use

Number of Paid Metronidazole Items for dental (GP14) forms - Scotland

- 2019
- 2020
- 2021
- 2022
Method

Data Source
- PIS data on dispensed (paid) GP14 dental prescriptions
- Available 3 months in arrears
- Dental Claims Data, MIDAS PHS

Total antibiotics

Key Outcome Measure
- Monthly items per claim for antibiotics in 2022 compared with number in 2019, 2020 and 2021
Results:
Number of Dental Claims

Number of Dental Claims - Scotland

Number of Dental Claims

- Jan
- Feb
- Mar
- Apr
- May
- Jun
- Jul
- Aug
- Sept
- Oct
- Nov
- Dec
Results:
total dental antibiotic use

Items per Claim for dental (GP14) forms - Scotland

- 2019
- 2020
- 2021
- 2022

+149%
Progress Against Antibiotic Use Indicators
10 October 2019

Dear Colleagues

**Standards on Healthcare Associated Infections and Indicators on Antibiotic Use**

On 24 January 2019, the UK government published a 20-year vision for AMR and a 5-year national action plan for tackling AMR (2019-24). These documents were developed collaboratively by a UK High Level Steering Group which included officials from all four UK countries. The UK plan set ambitious targets to reduce inappropriate prescribing of antibiotics and to reduce healthcare associated Gram-negative bacteraemia. The Scottish Government agreed in principle to endorse reductions in prescribing and Gram-negative bacteraemia in line with the UK national action plan, but reserved the right to set standards at levels that were appropriate for Scotland.

The new Standards and Indicators have been approved by the Cabinet Secretary for Health and Sport, and are attached at Annex A. They build on work by expert groups such as Health Protection Scotland and the Scottish Antimicrobial Prescribing Group.

I trust these standards and indicators provide useful benchmarks to support a local quality improvement framework as we take forward our important work to prevent and control healthcare associated infections and to contain antimicrobial resistance. We recognise that Boards may need time to develop and test effective interventions to support implementation of these standards and indicators. I look forward to working with you in this process.

Kind regards

Fiona McQueen
Chief Nursing Officer

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ANNEX A: Updated HCAI standards and antibiotic use indicators for Scotland

**Antibiotic use indicators**

1. A 10% reduction of antibiotic use in Primary Care (excluding dental) by 2022, using 2015/16 data as the baseline (items/1000/day).
2. Use of intravenous antibiotics in secondary care defined as DDD / 1000 population / day will be no higher in 2022 than it was in 2018.
3. Use of WHO Access antibiotics (NHSE list) ≥60% of total antibiotic use in Acute hospitals by 2022.
Indicator 1: A 10% reduction of antibiotic use in Primary Care (excluding dental) by 2022, using 2015 as the baseline
Indicator 1: A 10% reduction of antibiotic use in Primary Care (excluding dental) by 2022, using 2015/16 data as the baseline.
Indicator 2: Use of intravenous antibiotics in secondary care will be no higher in 2022 than it was in 2018
Indicator 2: Use of intravenous antibiotics in secondary care will be no higher in 2022 than it was in 2018.
Indicator 3: Use of WHO Access antibiotics greater than or equal to 60% of total antibiotic use in Acute hospitals by 2022
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Scotland

Percentage of DDDs

Year Quarter

Target: 60%
Acute Hospital Antibiotic Use by NHS Health Board Funnel Plot Analysis
Method

Data Source
• Hospital Medicines Utilisation Database (HMUD)
• Information Services Division ISD(S)1

Key Outcome Measure
• Total DDDs in Acute Hospitals per 100,000 Bed Days

Time period
• June 2020-July 2021
Amoxicillin

Rate of DDDs per 100,000 Acute Bed Days

Total Acute Bed Days

KEY

- >60% Access Use
- 55-60% Access Use
- <55% Access Use
Co-amoxiclav
Doxycycline

Rate of DDDs per 100,000 Acute Bed Days

Total Acute Bed Days

0 200,000 400,000 600,000 800,000 1,000,000

0 5,000 10,000 15,000 20,000 25,000 30,000

SH OR WI BRDG HG FV FF GR TY AA LN LO GGC
Clarithromycin

Rate of DDDs per 100,000 Acute Bed Days

Total Acute Bed Days
Gentamicin

Rate of DDDs per 100,000 Acute Bed Days

Total Acute Bed Days

0 200,000 400,000 600,000 800,000 1,000,000
Co-trimoxazole
Piperacillin + Tazobactam
Acknowledgements

Thanks to Karen Gronkowski, Aidan Morrison and Polly Russell