# Optimising duration of antimicrobial use

NHS Bath and North East Somerset, Swindon and Wiltshire PCN network 6th March 2024

Presented by:
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HM Government

# Tackling antimicrobial resistance 2019–2024

**The UK's five-year national action plan**

Published 24 January 2019

Optimising duration of antimicrobial use in primary care

## 3.1. Optimal use of antimicrobials in humans

**Ambition 4:** Provide safe and effective care to patients

**Ambition 8:** Demonstrate appropriate use of antimicrobials

MEASURING SUCCESS

**Target:** to reduce UK antimicrobial use in humans by 15% by 2024, including:

- a 25% reduction in antibiotic use in the community from the 2013 baseline;
- a 10% reduction in use of 'reserve' and 'watch' antibiotics in hospitals from the 2017 baseline

New 5-year NAP 2024 publishing

# Optimising antimicrobial duration

# NHS England National medicines optimisation opportunities 2023/24

This guidance describes the 16 national medicines optimisation opportunities for the NHS in 2023/24, and signposts to resources to help with their implementation. We recommend integrated care boards (ICBs) choose at least five medicines optimisation opportunities to focus and deliver on alongside their local medicine optimisation priorities. Progress against chosen opportunities will be reviewed using available data

https://www.england.nhs.uk/long-read/national-medicines-optimisation-opportunities-2023-24/

NHSBSA ePACT2 ICB performance dashboard published here

https://www.nhsbsa.nhs.uk/access-our-data-products/epact2/dashboards-and-specifications/national-medicines-optimisation-opportunities

## 14. Reducing course length of antimicrobial prescribing

Primary care prescribing data suggests that the shortest effective courses of antibiotics are not consistently prescribed and across general practice there is considerable variation in the proportion of short and long course prescriptions. Within this there may be health inequality in patient exposure to the harms of antibiotics and the threat of antimicrobial resistance

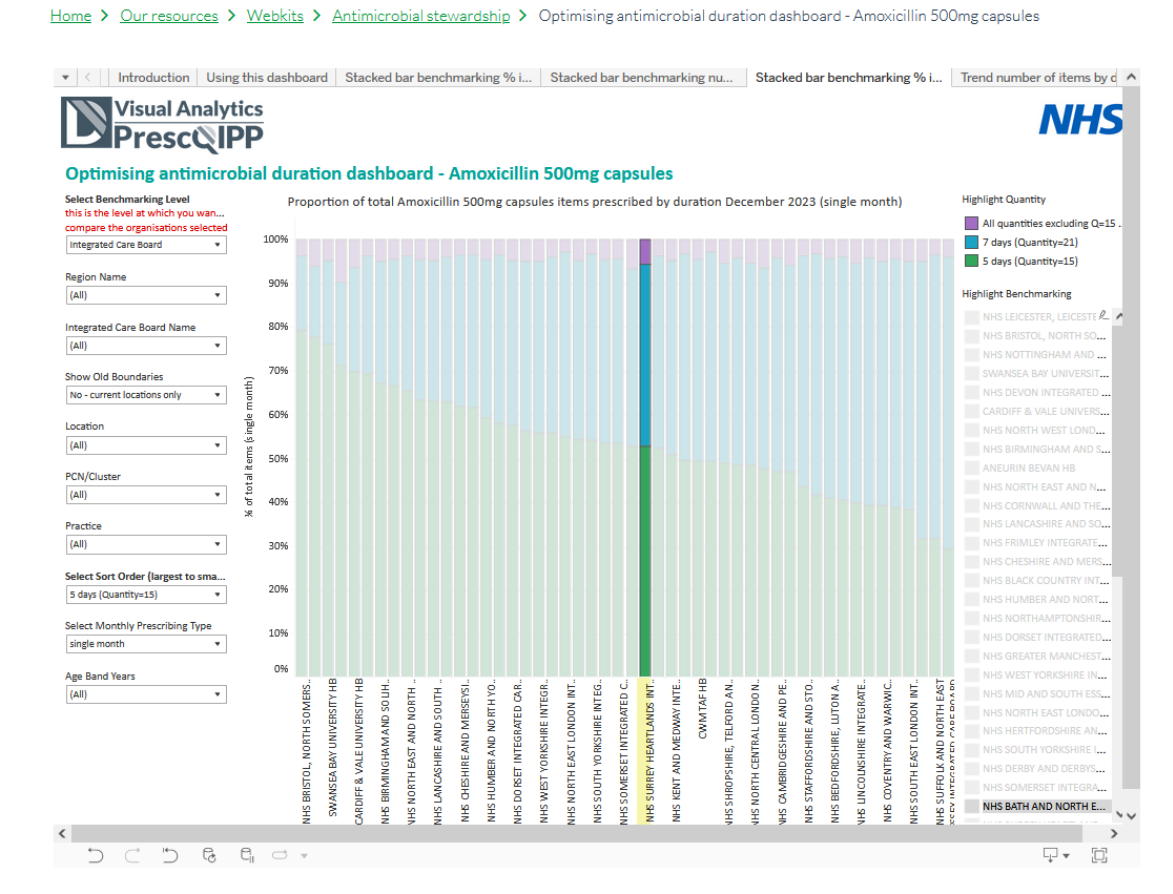
NICE guidance for common infections routinely recommends the shortest effective course of treatment, to reduce selection pressure for antimicrobial resistance and inadvertent patient harm from antibiotic treatment. Five-day courses are recommended when antibiotics are indicated for sinusitis, sore throat, COPD infective exacerbation, cough (acute), pneumonia (community-acquired) and otitis media

**What success looks like**

• By March 2024, 75% or more of total amoxicillin prescriptions as 5-day courses

# Optimising antimicrobial duration

## NHS England National medicines optimisation opportunities 2023/24




14. Reducing course length of antimicrobial prescribing

**What success looks like**

- By March 2024, 75% or more of total amoxicillin prescriptions as 5-day courses

How are BSW doing at December 2023?

53% 5-day duration N items = 3,965

42% 7-day duration N items = 3,108

# Evidence (some) for Shortest effective course lengths for antibiotics has been collated by NHSE South East

Access via NHS England AMR FutureNHS workspace here

Evidence bundle (SE Course Lengths) - Antimicrobial Resistance Programme - FutureNHS Collaboration Platform

Evidence bundle (August 2023)

Authors: South East RMOC APMO subgroup project group

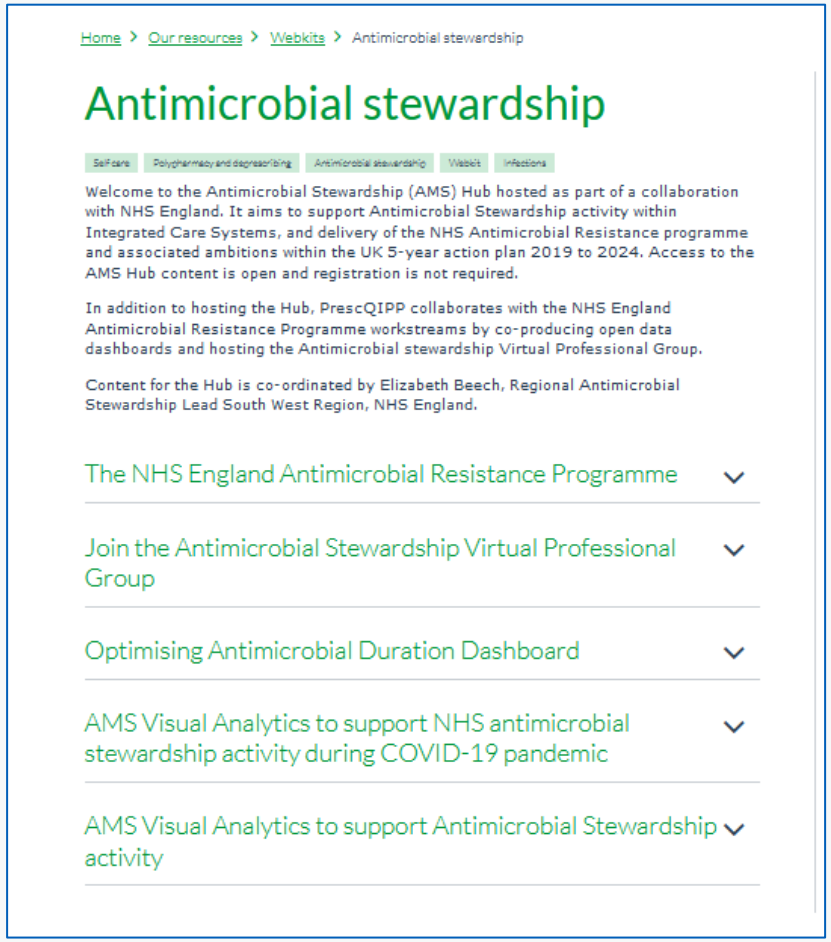
# Optimising antimicrobial duration methodology

## Metric development is based on

- High volume antibiotic
  *amoxicillin*
- NICE guidance dose and duration
  *500mg oral TDS 5 days*
- AMR programme priority workstream
  *linked to E.coli resistance*
- Define SMART metrics
  *AMOXICILLIN 500MG CAPSULE*
  *5 DAY = quantity 15*
  *7 DAY = quantity 21*
- Uses routinely reported data sets
  *ePACT2 data*

| NICE Antimicrobial Prescribing Guidance reccomendation | AMOXICILLIN 500MG CAPSULES |
|---|---|
| WHO DDD | 1500MG |
| Pneumonia (community-acquired): antimicrobial prescribing NG138 | 500MG three times a day for 5 days (higher doses can be used see BNF) 5Y+ |
| Otitis media (acute): antimicrobial prescribing NG91 | 500MG three times a day for 5 days to 7 days Young people under 18Y |
| Cough (acute): antimicrobial prescribing NG120 | 500MG three times a day for 5 days 5Y+ |
| Bronchiectasis (non-cystic fibrosis), acute exacerbation: antimicrobial prescribing NG117 | 500MG three times a day for 7 days to 14 days 5Y+ |
| Chronic obstructive pulmonary disease (acute exacerbation): antimicrobial prescribing NG114 | 500MG three times a day for 5 days 18Y+ |
| Urinary tract infection (catheter-associated): antimicrobial prescribing NG113 | 500MG three times a day for 7 days only if culture results available and suspectible non-pregnant women and men |
| Urinary tract infection (lower): antimicrobial prescribing NG109 | 500MG three times a day for 7 days only if culture results available and suspectible **pregnant women** |
| Urinary tract infection (recurrent): antimicrobial prescribing NG112 | 500MG single dose or 250MG at night 16Y+ 250MG at night 5Y+ |
| DURATION METRIC ADOPTED | AMOXICILLIN 500MG CAPSULES<br>WHO DDD 1500MG<br>5 DAY QUANTITY=15<br>7 DAY QUANTITY=21 |

# PrescQIPP Optimising antimicrobial duration dashboard https://www.prescqipp.info/our-resources/webkits/antimicrobial-stewardship/



Home > Our resources > Webkits > Antimicrobial stewardship

## Antimicrobial stewardship

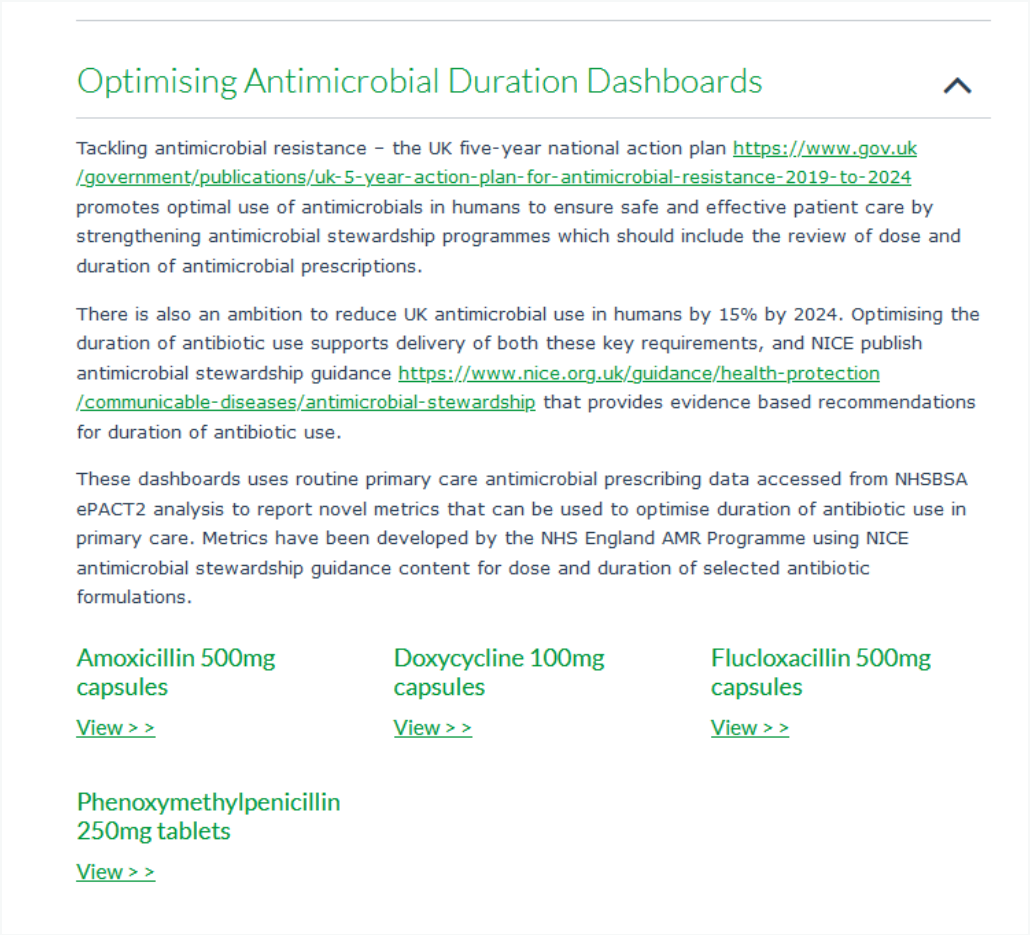
Self care | Polypharmacy and deprescribing | Antimicrobial stewardship | Wesbit | Infections

Welcome to the Antimicrobial Stewardship (AMS) Hub hosted as part of a collaboration with NHS England. It aims to support Antimicrobial Stewardship activity within Integrated Care Systems, and delivery of the NHS Antimicrobial Resistance programme and associated ambitions within the UK 5-year action plan 2019 to 2024. Access to the AMS Hub content is open and registration is not required.

In addition to hosting the Hub, PrescQIPP collaborates with the NHS England Antimicrobial Resistance Programme workstreams by co-producing open data dashboards and hosting the Antimicrobial stewardship Virtual Professional Group.

Content for the Hub is co-ordinated by Elizabeth Beech, Regional Antimicrobial Stewardship Lead South West Region, NHS England.

- The NHS England Antimicrobial Resistance Programme
- Join the Antimicrobial Stewardship Virtual Professional Group
- Optimising Antimicrobial Duration Dashboard
- AMS Visual Analytics to support NHS antimicrobial stewardship activity during COVID-19 pandemic
- AMS Visual Analytics to support Antimicrobial Stewardship activity



### Optimising Antimicrobial Duration Dashboards

Tackling antimicrobial resistance – the UK five-year national action plan https://www.gov.uk/government/publications/uk-5-year-action-plan-for-antimicrobial-resistance-2019-to-2024 promotes optimal use of antimicrobials in humans to ensure safe and effective patient care by strengthening antimicrobial stewardship programmes which should include the review of dose and duration of antimicrobial prescriptions.

There is also an ambition to reduce UK antimicrobial use in humans by 15% by 2024. Optimising the duration of antibiotic use supports delivery of both these key requirements, and NICE publish antimicrobial stewardship guidance https://www.nice.org.uk/guidance/health-protection/communicable-diseases/antimicrobial-stewardship that provides evidence based recommendations for duration of antibiotic use.

These dashboards uses routine primary care antimicrobial prescribing data accessed from NHSBSA ePACT2 analysis to report novel metrics that can be used to optimise duration of antibiotic use in primary care. Metrics have been developed by the NHS England AMR Programme using NICE antimicrobial stewardship guidance content for dose and duration of selected antibiotic formulations.

**Amoxicillin 500mg capsules**
View > >

**Doxycycline 100mg capsules**
View > >

**Flucloxacillin 500mg capsules**
View > >

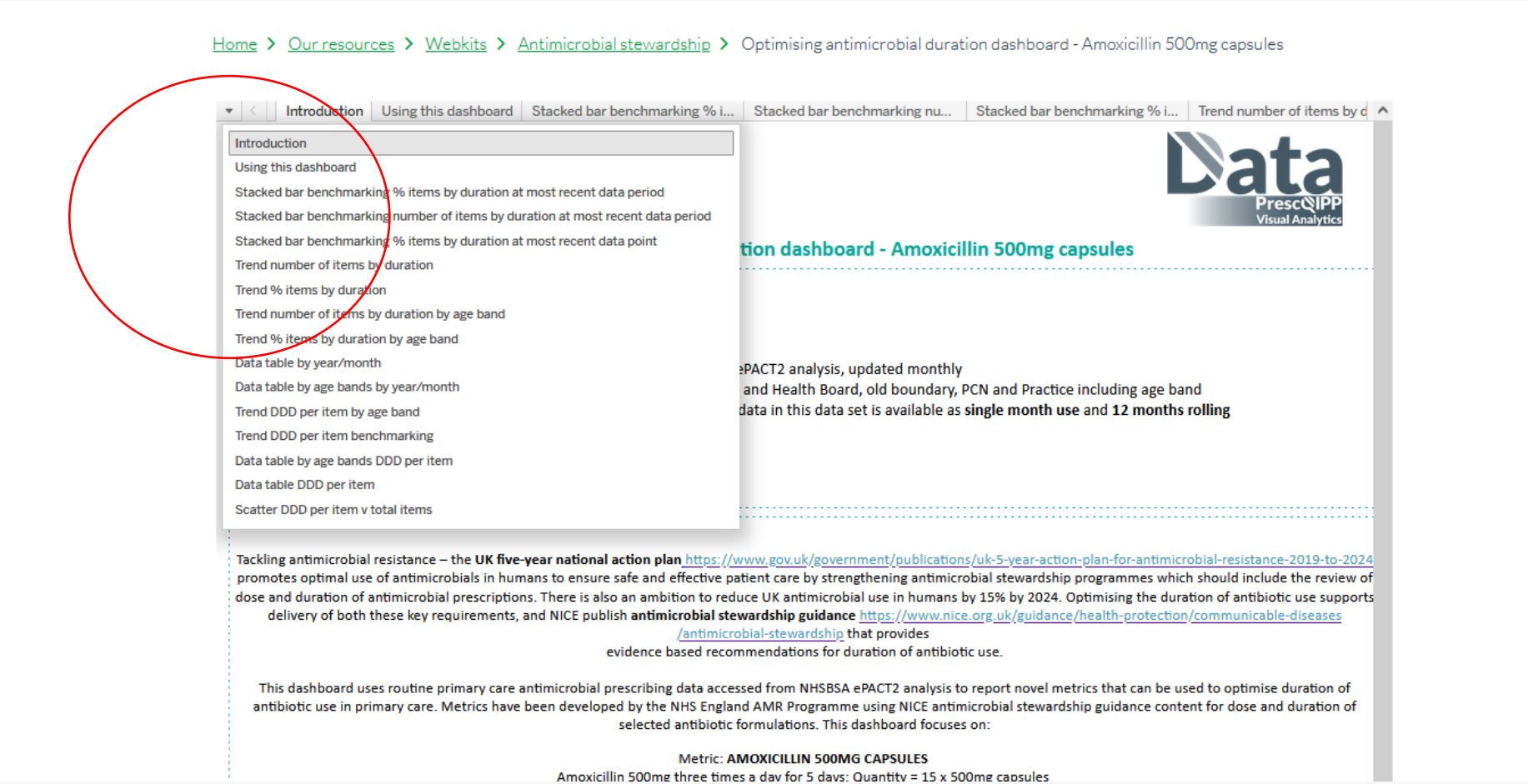
**Phenoxymethylpenicillin 250mg tablets**
View > >

# PrescQIPP Optimising antimicrobial duration dashboard

Please Log onto PrecQIPP so you can join in I slide share

https://www.prescqipp.info/our-resources/webkits/antimicrobial-stewardship/

# PrescQIPP Optimising antimicrobial duration dashboard - AMOXICILLIN



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Metric: **AMOXICILLIN 500MG CAPSULES**

Amoxicillin 500mg three times a day for 5 days: Quantity = 15 x 500mg capsules

Amoxicillin 500mg three times a day for 7 days: Quantity = 21 x 500mg capsules

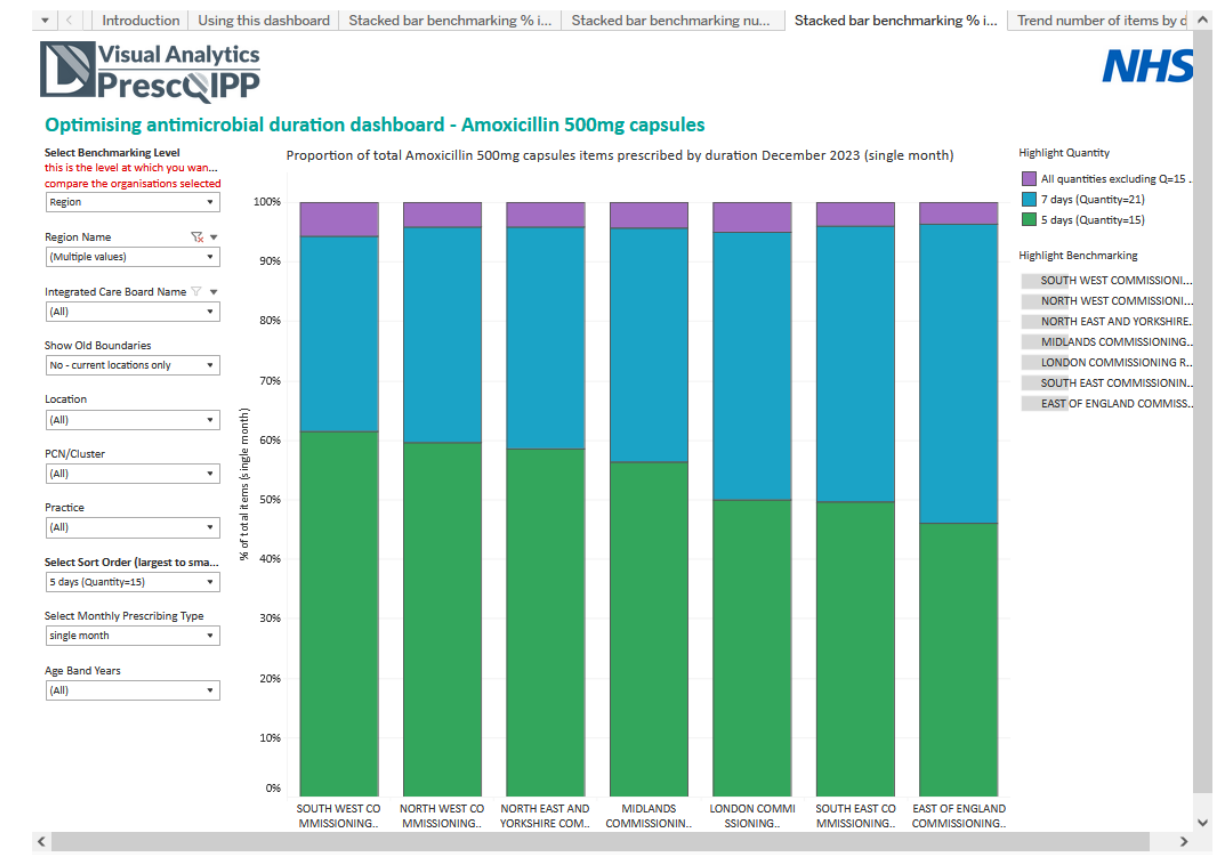
Amoxicillin 500mg for other dose and other duration: = other quantity x 500mg capsules

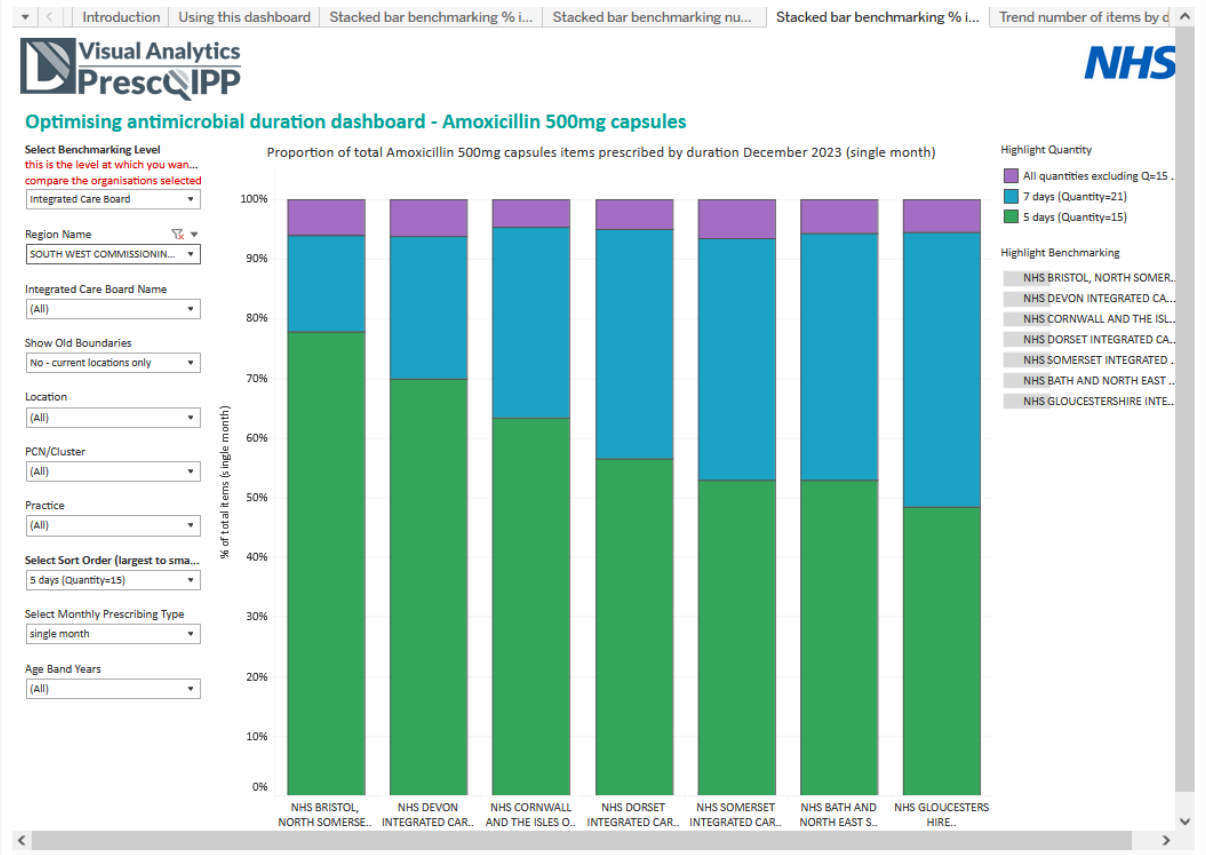
**Reducing amoxicillin 500mg three times a day from a 7 day to a 5 day duration delivers a 29% reduction in Defined Daily Doses (DDD)**

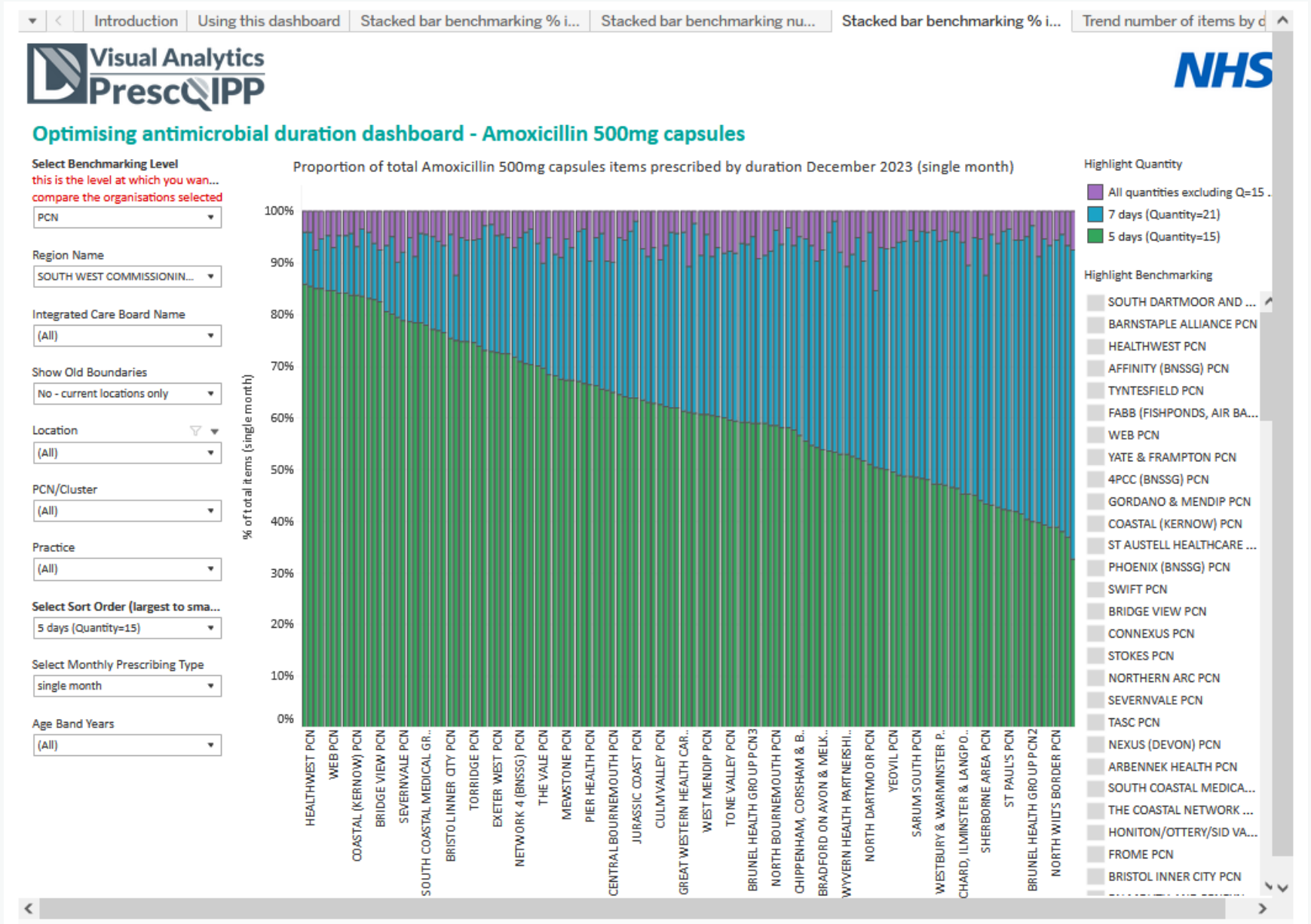
The World Health Organization (WHO) Defined Daily Dose (DDD) for amoxicillin is 1500mg

The Amoxicillin 500mg metric has been visualised in 14 Tabs and a brief description of how to use each visualisation is provided on the next page 'using this dashboard'

# PrescQIPP Optimising antimicrobial duration dashboard - AMOXICILLIN
# Doing well in South West Region – but room for BSW improvement



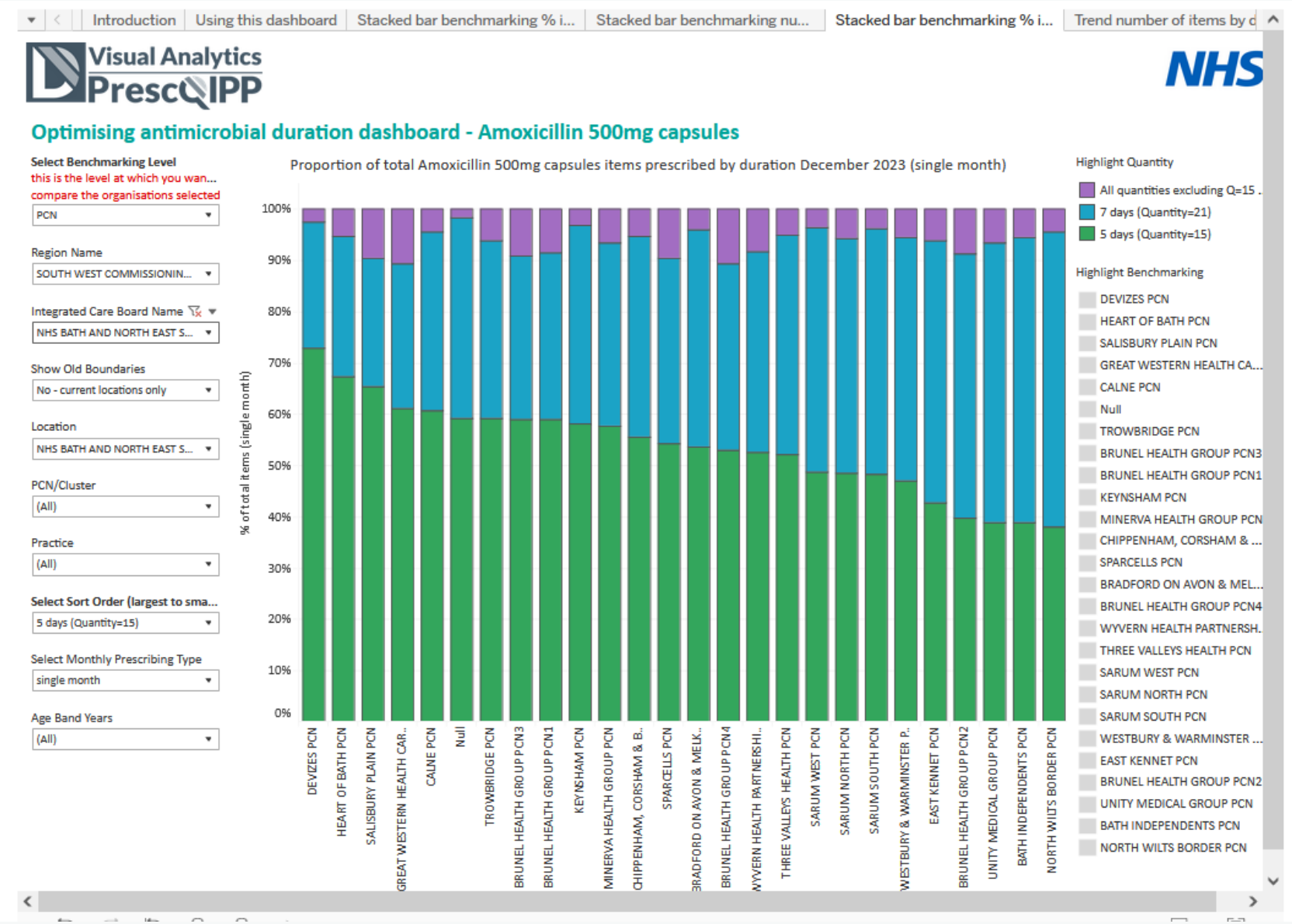






# PrescQIPP Optimising antimicrobial duration dashboard - AMOXICILLIN

PCN view across the South West variation 32%-86% 5-day duration

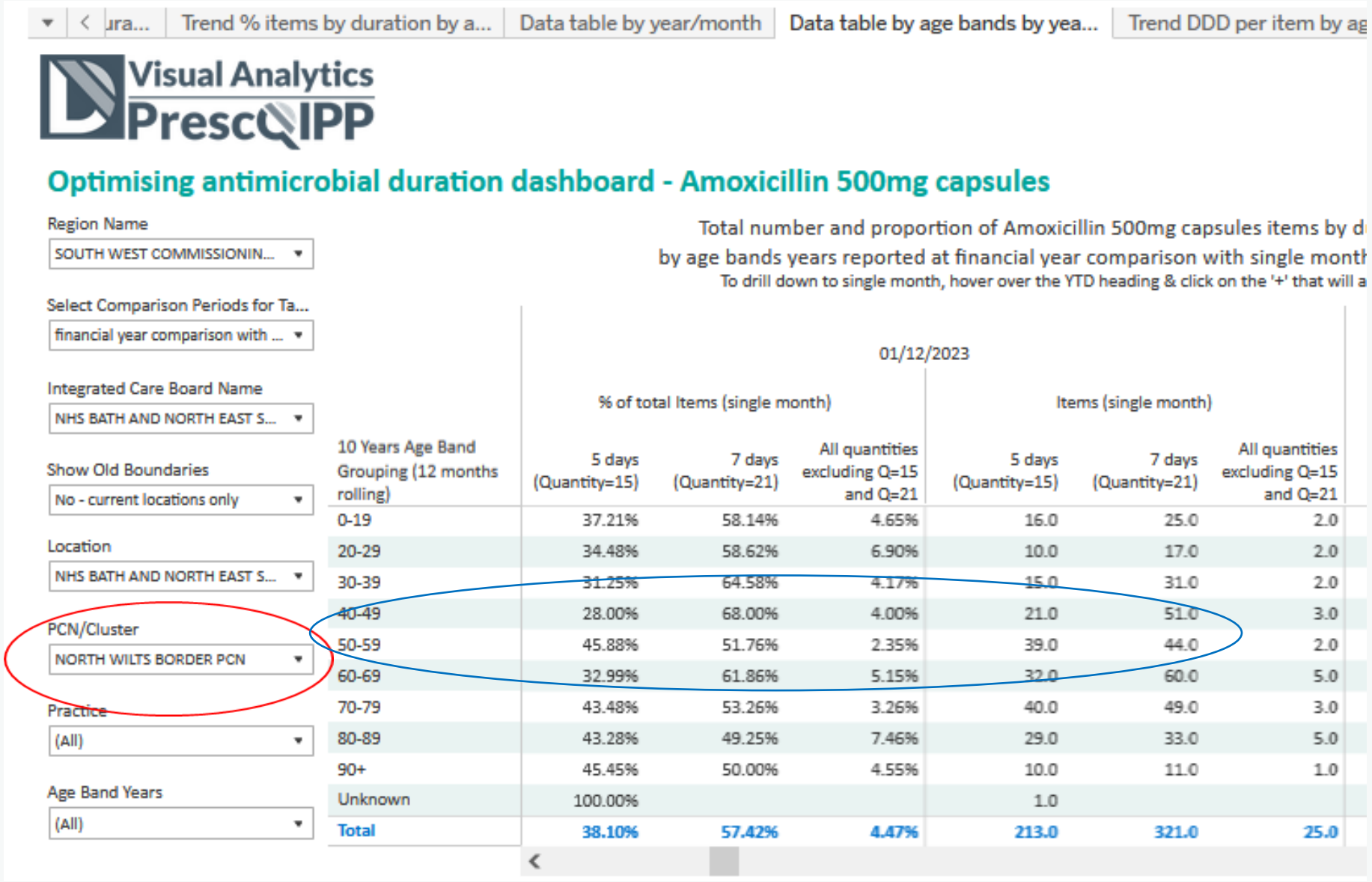
*note other-day duration remains very consistent*




# PrescQIPP Optimising antimicrobial duration dashboard - AMOXICILLIN

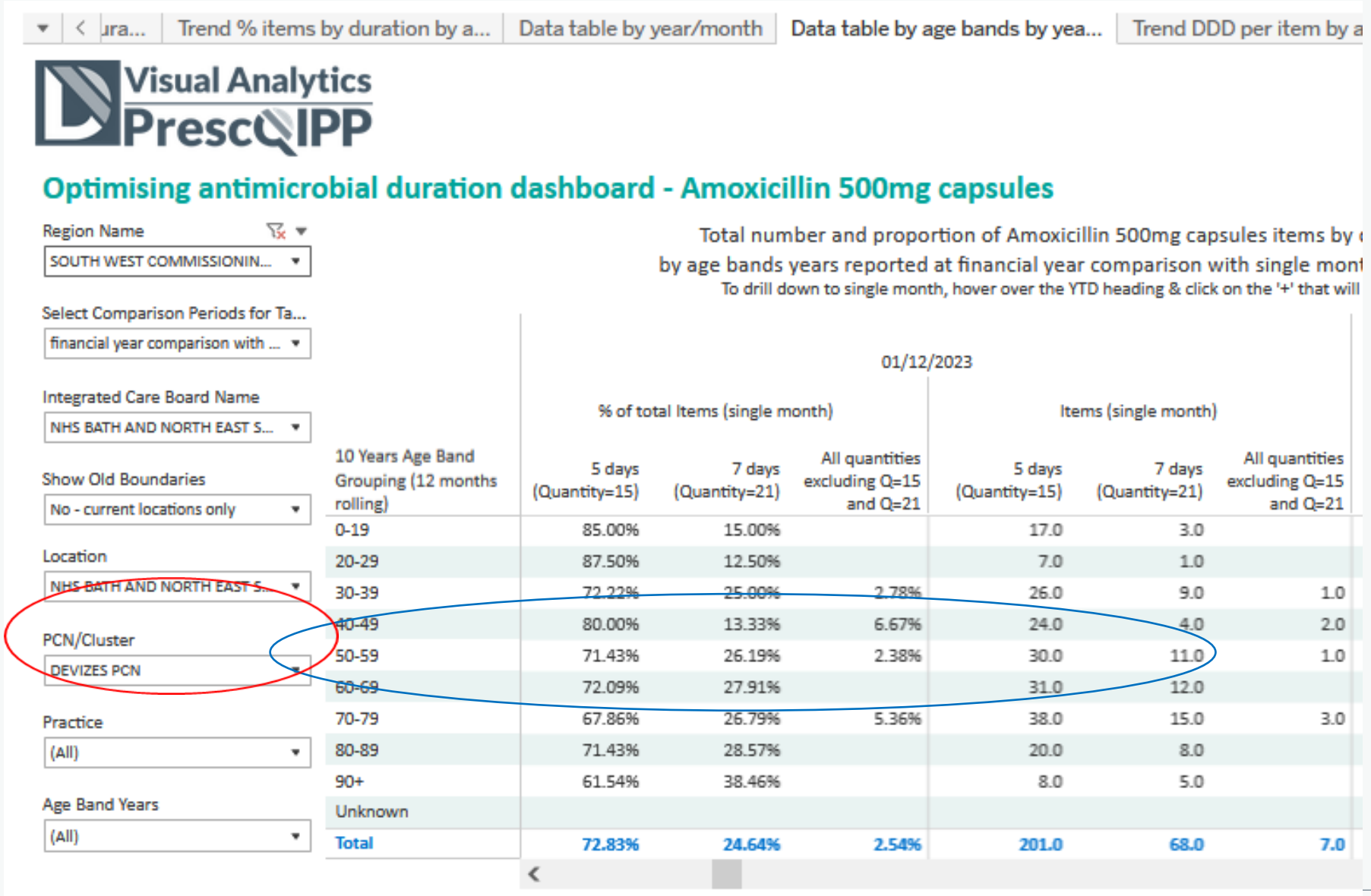
PCN view across BSW variation 38%-73% 5-day duration

*note other-day duration remains very consistent*




Use the Data table by age bands to look for variation in duration by age

North Wilts Border PCN




Use the Data table by age bands to look for variation in duration by age

Devizes PCN

# PrescQIPP Optimising antimicrobial duration dashboard - DOXYCYCLINE

Tackling antimicrobial resistance – the **UK five-year national action plan** https://www.gov.uk/government/publications/uk-5-year-action-plan-for-antimicrobial-resistance-2019-to-2024 promotes optimal use of antimicrobials in humans to ensure safe and effective patient care by strengthening antimicrobial stewardship programmes which should include the review of dose and duration of antimicrobial prescriptions. There is also an ambition to reduce UK antimicrobial use in humans by 15% by 2024. Optimising the duration of antibiotic use supports delivery of both these key requirements, and NICE publish **antimicrobial stewardship guidance** https://www.nice.org.uk/guidance/health-protection/communicable-diseases/antimicrobial-stewardship that provides evidence based recommendations for duration of antibiotic use.

This dashboard uses routine primary care antimicrobial prescribing data accessed from NHSBSA ePACT2 analysis to report novel metrics that can be used to optimise duration of antibiotic use in primary care. Metrics have been developed by the NHS England AMR Programme using NICE antimicrobial stewardship guidance content for dose and duration of selected antibiotic formulations. This dashboard focuses on:

Metric: **DOXYCYCLINE 100MG CAPSULES**

Doxycycline 200mg first day then 100mg once a day for a total of 5 days: Quantity = 6 x 100mg capsules

Doxycycline 200mg first day then 100mg once a day for a total of 7 days: Quantity = 8 x 100mg capsules

Doxycycline 200mg once a day for a total of 7 days: Quantity = 14 x 100mg capsules

Doxycycline 100mg for other dose and other duration: = other quantity x 100mg capsules

**Reducing doxycycline 200mg first day then 100mg once a day from a 7 day to a 5 day duration delivers a 25% reduction in Defined Daily Doses (DDD)**

The World Health Organization (WHO) Defined Daily Dose (DDD) for doxycycline is 100mg

The Doxycycline 200mg metric has been visualised in 14 Tabs and a brief description of how to use each visualisation is provided on the next page 'using this dashboard'

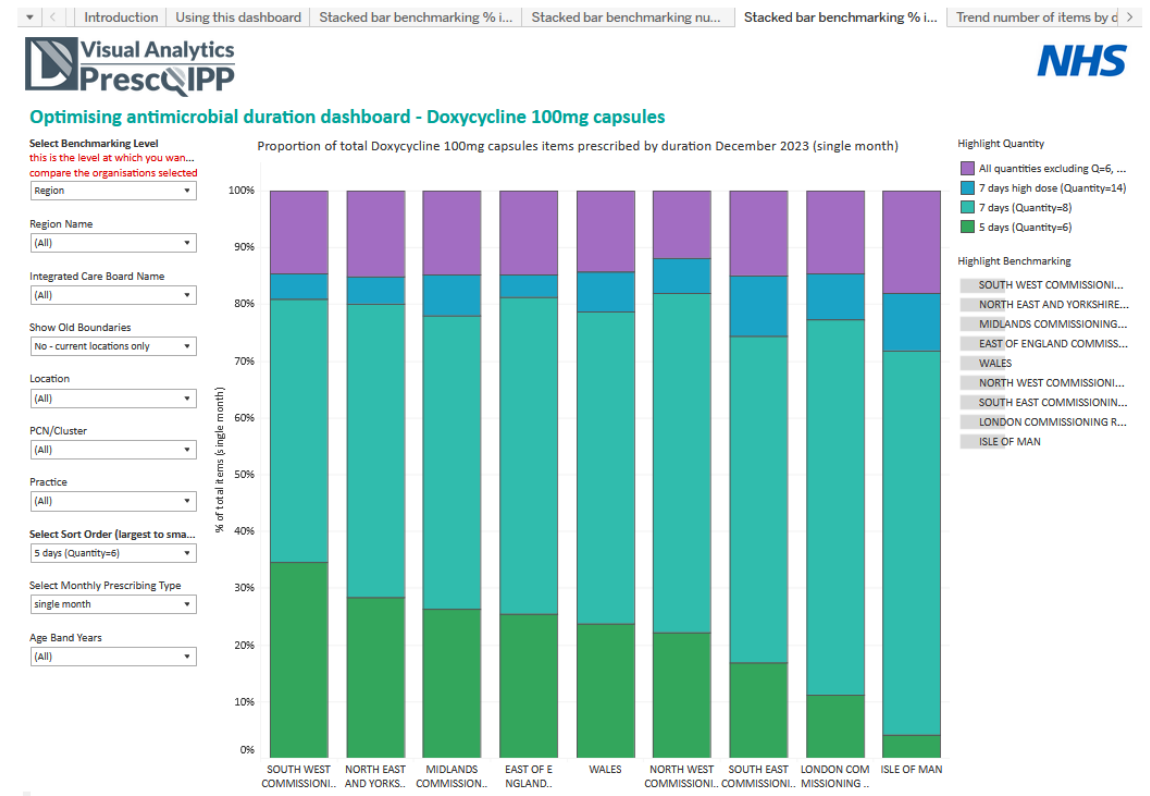
| NICE Antimicrobial Prescribing Guidance reccomendation | DOXYCYLINE 100MG CAPSULES |
|---|---|
| WHO DDD | 100MG |
| Pneumonia (community-acquired): antimicrobial prescribing NG138 | 200MG on first day then 100MG once a day (5 Day course in total) 12Y+ |
| Human and animal bites: antimicrobial prescribing NG184 | 200MG on first day then 100MG once a day (5 Day course in total) 12Y+ |
| Insect bites and stings: antimicrobial prescribing NG182 | 200MG on first day then 100MG once a day for 5 days to 7 days (total days) 18Y+ |
| Diabetic foot problems: prevention and management NG19 | 200MG on first day then 100MG once a day Can be increased to 200MG daily (7 day course in total) 18Y+ |
| Leg ulcer infection: antimicrobial prescribing NG152 | 200MG on first day then 100MG once a day Can be increased to 200MG daily (7 day course in total) 18Y+ |
| Cellulitis and erysipelas: antimicrobial prescribing NG141 | 200MG on first day then 100MG once a day for 5 days to 7 days (total days) 18Y+ |
| Cough (acute): antimicrobial prescribing NG120 | 200MG on first day then 100MG once a day (5 Day course in total) 12Y+ |
| Bronchiectasis (non-cystic fibrosis), acute exacerbation: antimicrobial prescribing NG117 | 200MG on first day then 100MG once a day for 7 days to 14 days (total days) 12Y+ |
| Chronic obstructive pulmonary disease (acute exacerbation): antimicrobial prescribing NG114 | 200MG on first day then 100MG once a day (5 Day course in total) 18Y+ |
| Sinusitis (acute): antimicrobial prescribing NG79 | 200MG on first day then 100MG once a day (5 Day course in total) 12Y+ |

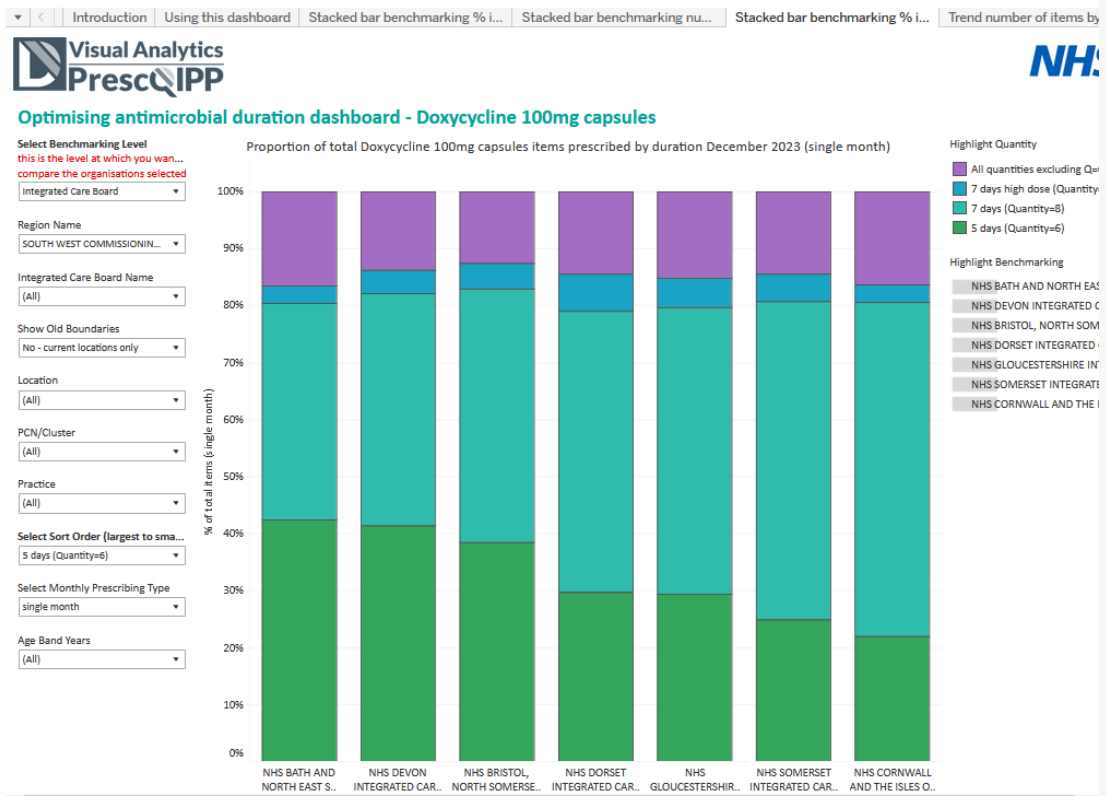
**Alternative oral antibiotics for penicillin allergy or if flucloxacillin unsuitable (guided by microbiological results when available)**

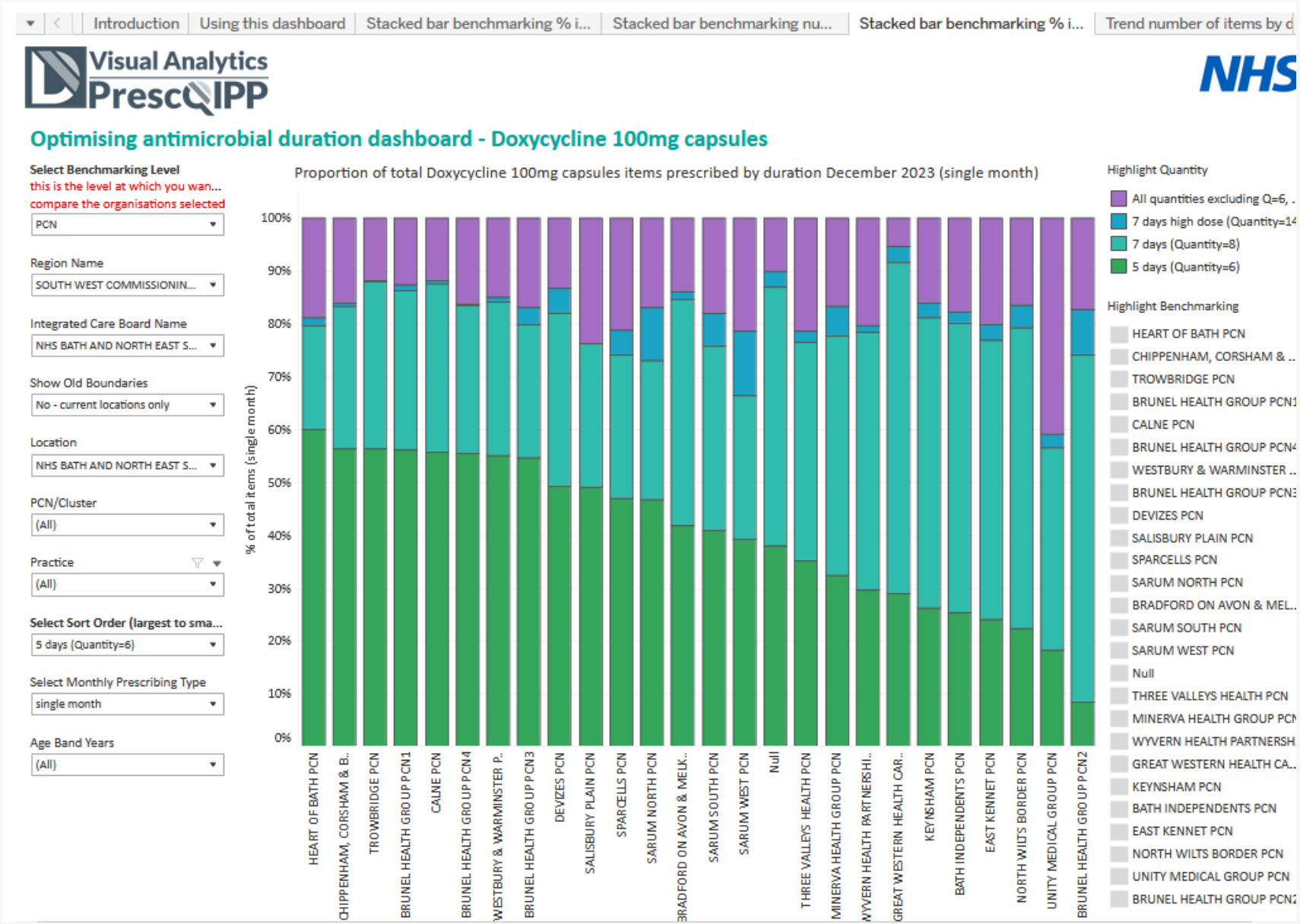
| | |
|---|---|
| Doxycycline | 200 mg on first day, then 100 mg once a day (can be increased to 200 mg daily) for 7 days.<br><br>A longer course (up to a further 7 days) may be needed based on clinical assessment. However, skin does take some time to return to normal, and full resolution of symptoms at 7 days is not expected. |

| | |
|---|---|
| **Alternative first-choice antibiotics for penicillin allergy or if flucloxacillin is unsuitable** (give orally unless person unable to take oral or severely unwell) | **Clarithromycin** (5 to 7 days):<br><br>500 mg twice a day orally<br><br>**or** 500 mg twice a day intravenously<br><br>**Erythromycin** (in pregnancy; 5 to 7 days):<br><br>500 mg four times a day orally<br><br>**Doxycycline** (5 to 7 days in total):<br><br>200 mg on the first day then 100 mg once a day orally |

# PrescQIPP Optimising antimicrobial duration dashboard - DOXYCYCLINE
# Doing well in South West Region – and BSW leading 5-day Quantity=6






# PrescQIPP Optimising antimicrobial duration dashboard - DOXYCYCLINE

PCN view across BSW LOTS of variation 9%-60% 5-day duration

*what are Unity PCN doing ? unusual 'other-day' use*
*Sarum West have high '7-day high dose' use*

# PrescQIPP Optimising antimicrobial duration dashboard - FLUCLOXACILLIN

Tackling antimicrobial resistance – the **UK five-year national action plan** https://www.gov.uk/government/publications/uk-5-year-action-plan-for-antimicrobial-resistance-2019-to-2024 promotes optimal use of antimicrobials in humans to ensure safe and effective patient care by strengthening antimicrobial stewardship programmes which should include the review of dose and duration of antimicrobial prescriptions. There is also an ambition to reduce UK antimicrobial use in humans by 15% by 2024. Optimising the duration of antibiotic use supports delivery of both these key requirements, and NICE publish **antimicrobial stewardship guidance** https://www.nice.org.uk/guidance/health-protection/communicable-diseases/antimicrobial-stewardship that provides evidence based recommendations for duration of antibiotic use.

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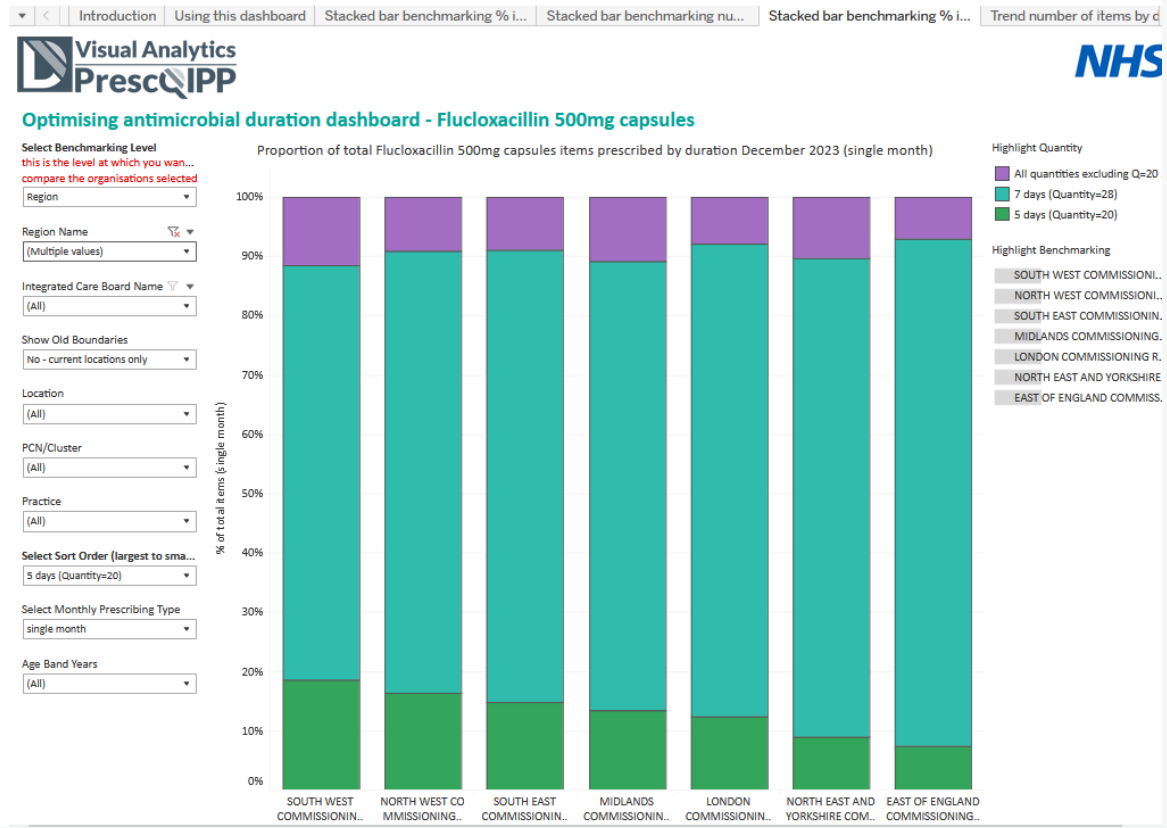
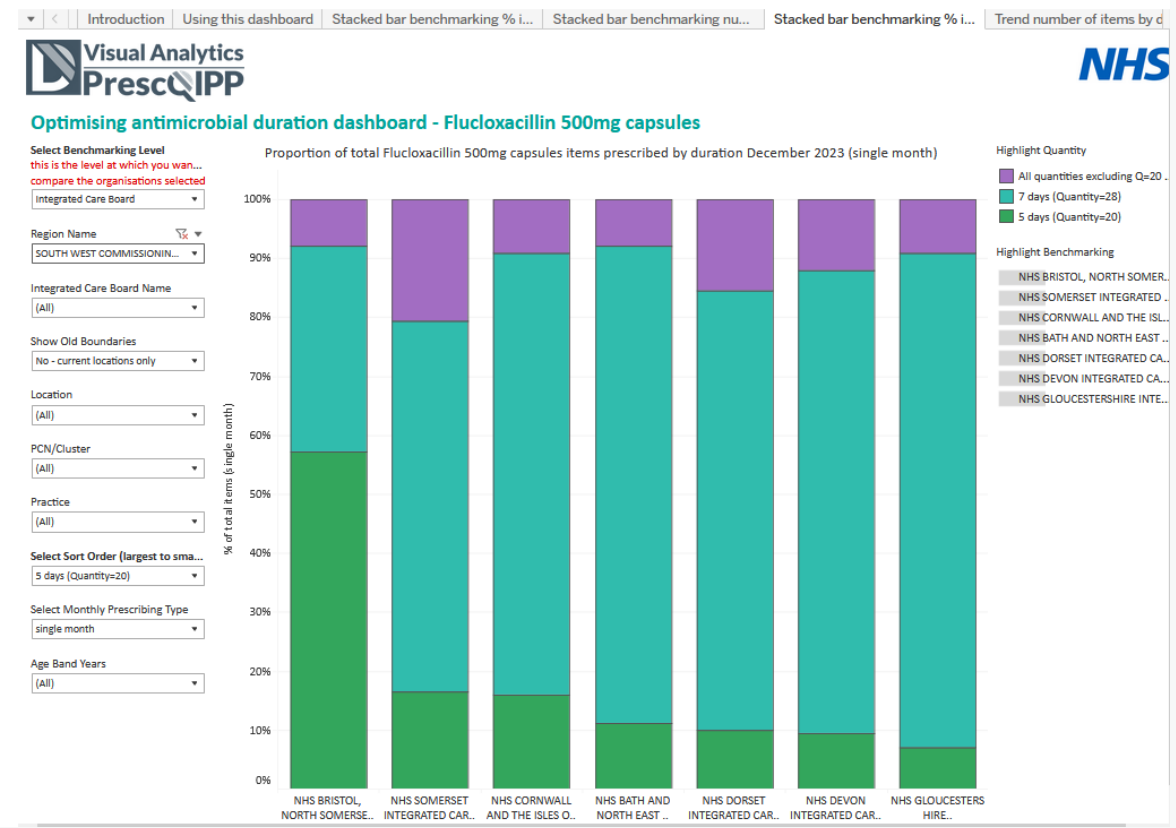
Metric: **FLUCLOXACILLIN 500MG CAPSULES**
Flucloxacillin 500mg four times a day for 5 days: Quantity = 20 x 500mg capsules
Flucloxacillin 500mg four times a day for 7 days: Quantity = 28 x 500mg capsules
Flucloxacillin 500mg for other dose and other duration: = other quantity x 500mg capsules
**Reducing flucloxacillin 500mg four times a day from a 7 day to a 5 day duration delivers a 29% reduction in Defined Daily Dose (DDD)**
The World Health Organization (WHO) Defined Daily Dose (DDD) for flucloxacillin is 2000mg

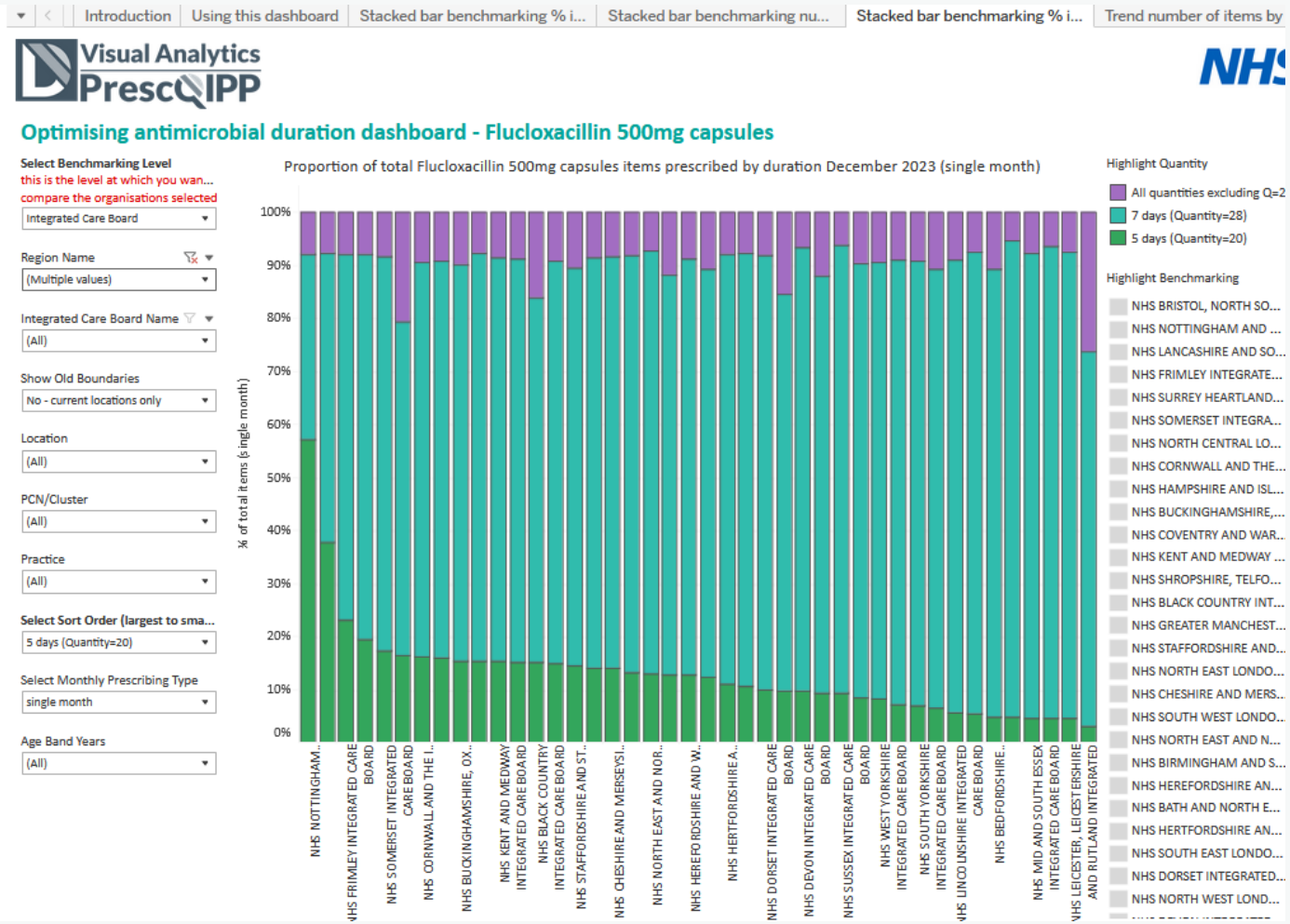
The Flucloxacillin 500mg metric has been visualised in 14 Tabs and a brief description of how to use each visualisation is provided on the next page 'using this dashboard'

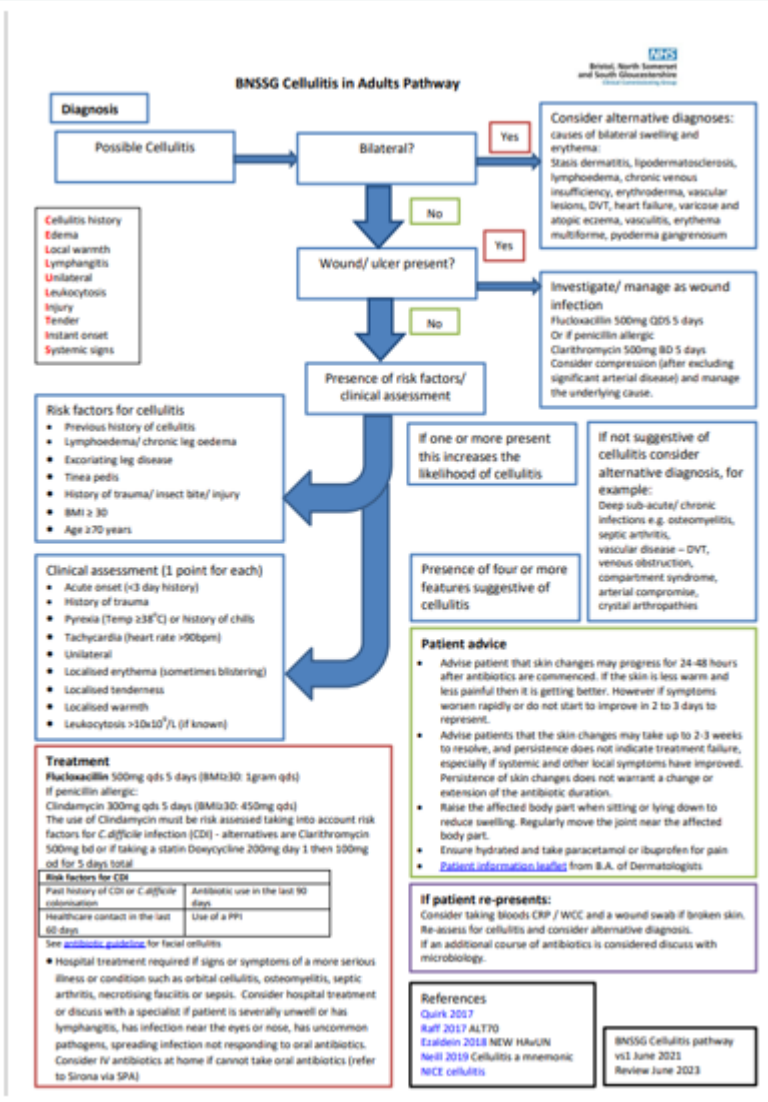
# PrescQIPP Optimising antimicrobial duration dashboard - FLUCLOXACILLIN ICS guidance needs to be reviewed with microbiology and stakeholders



# PrescQIPP Optimising antimicrobial duration dashboard - FLUCLOXACILLIN



# PrescQIPP Optimising antimicrobial duration dashboard - PHENOXYMETHYLPENICILLIN

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Metric: **PHENOXYMETHYLPENICILLIN 250MG TABLETS**

Phenoxymethylpenicillin 500mg four times a day or 1000mg twice a day for 5 days: Quantity = 40 x 250mg tablets

Phenoxymethylpenicillin 500mg four times a day or 1000mg twice a day for 7 days: Quantity = 56 x 250mg tablets

Phenoxymethylpenicillin 500mg four times a day or 1000mg twice a day for 10 days: Quantity = 80 x 250mg tablets

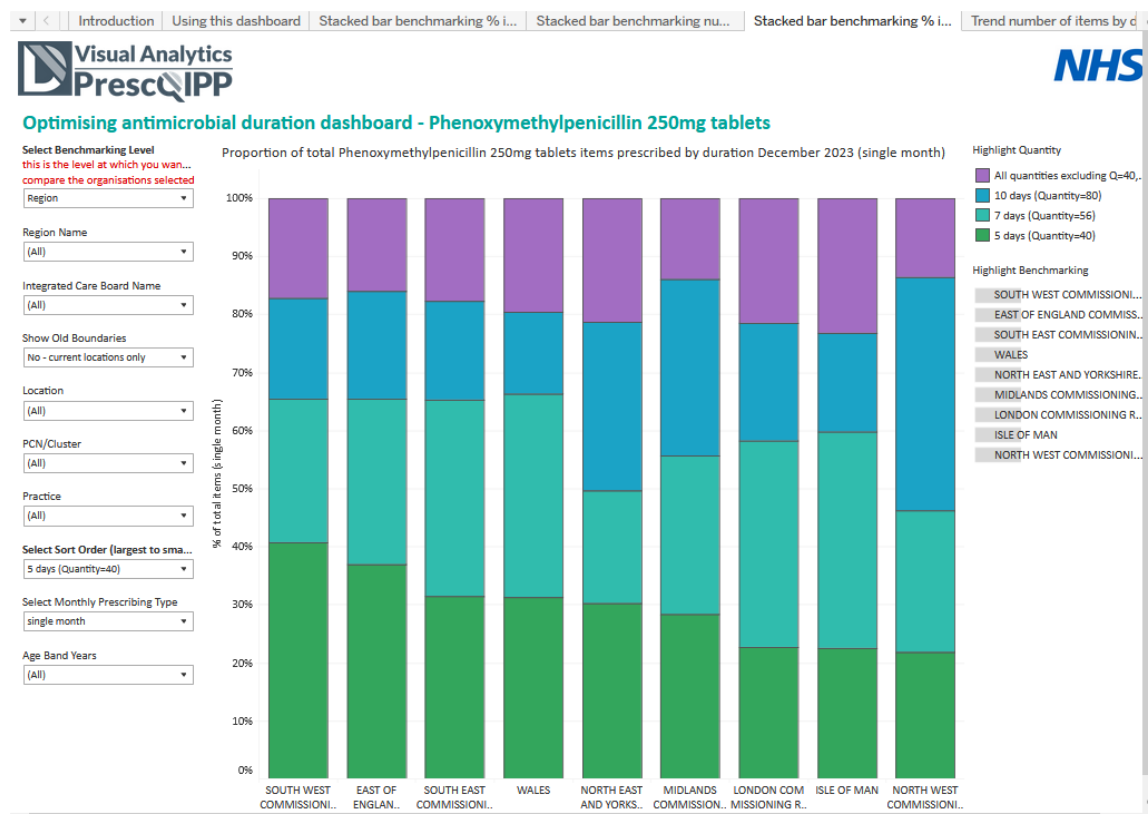
Phenoxymethylpenicillin 250mg for other dose and other duration: = other quantity x 250mg tablets

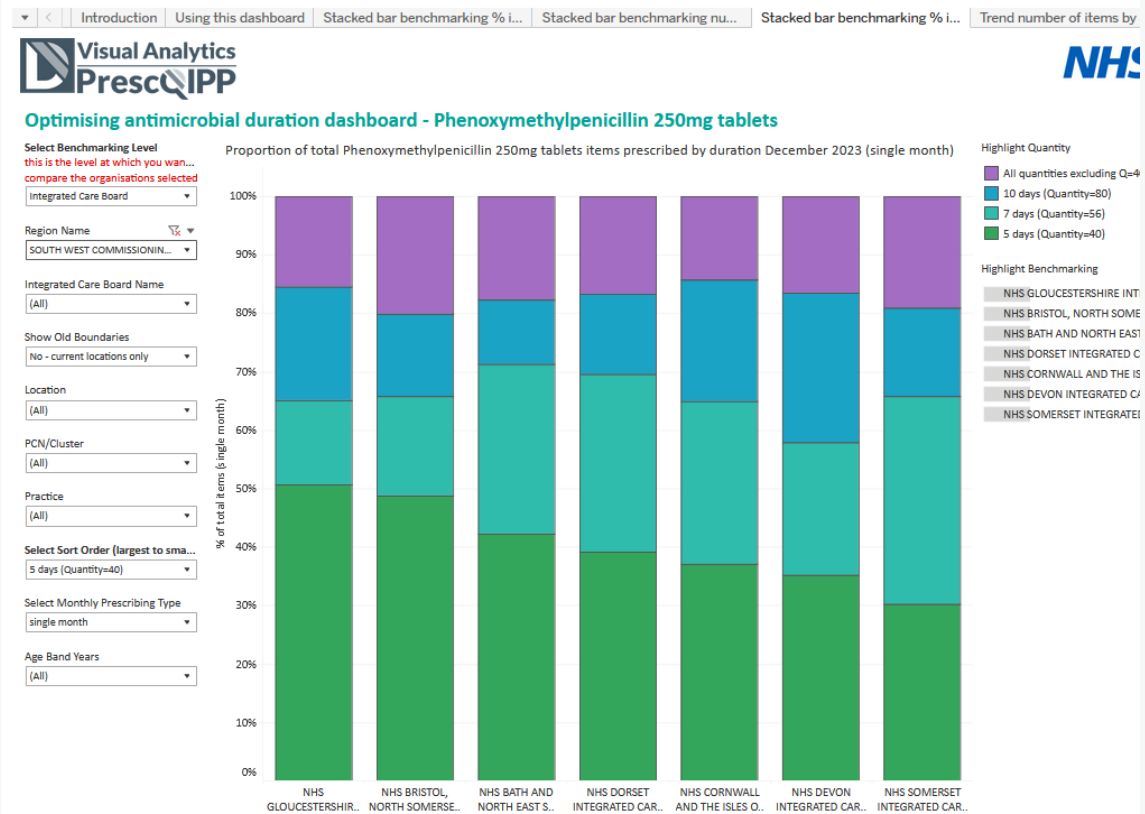
**Reducing phenoxymethylpenicillin 500mg four times a day or 1000mg twice a day from a 7 day to a 5 day duration delivers a 29% reduction in Defined Daily Dose (DDD)**

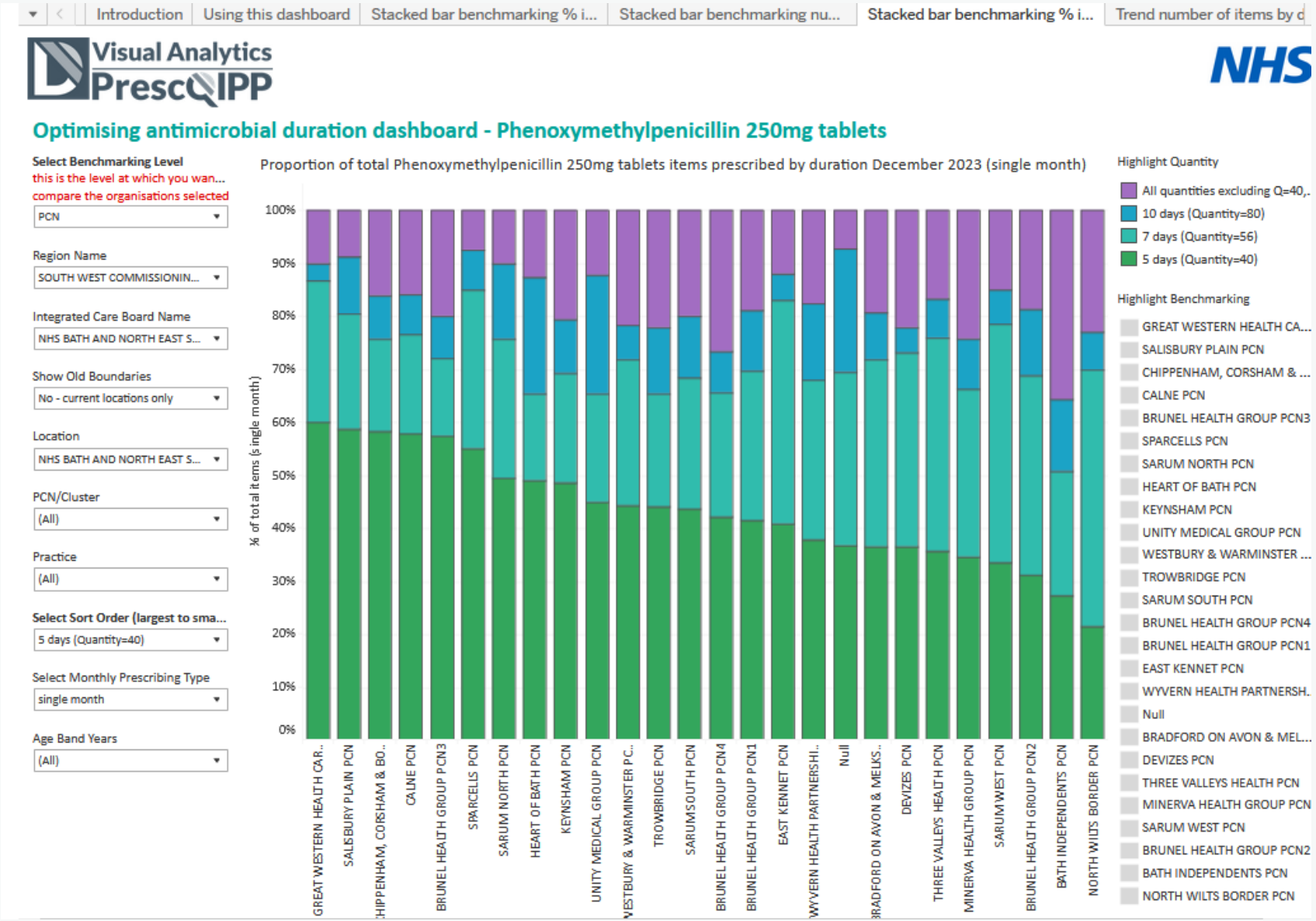
The World Health Organization (WHO) Defined Daily Dose (DDD) for phenoxymethylpenicillin is 2000mg

The Phenoxymethylpenicillin 250mg metric has been visualised in 14 Tabs and a brief description of how to use each visualisation is provided on the next page 'using this dashboard'

# PrescQIPP Optimising antimicrobial duration dashboard - PHENOXYMETHYLPENICILLIN





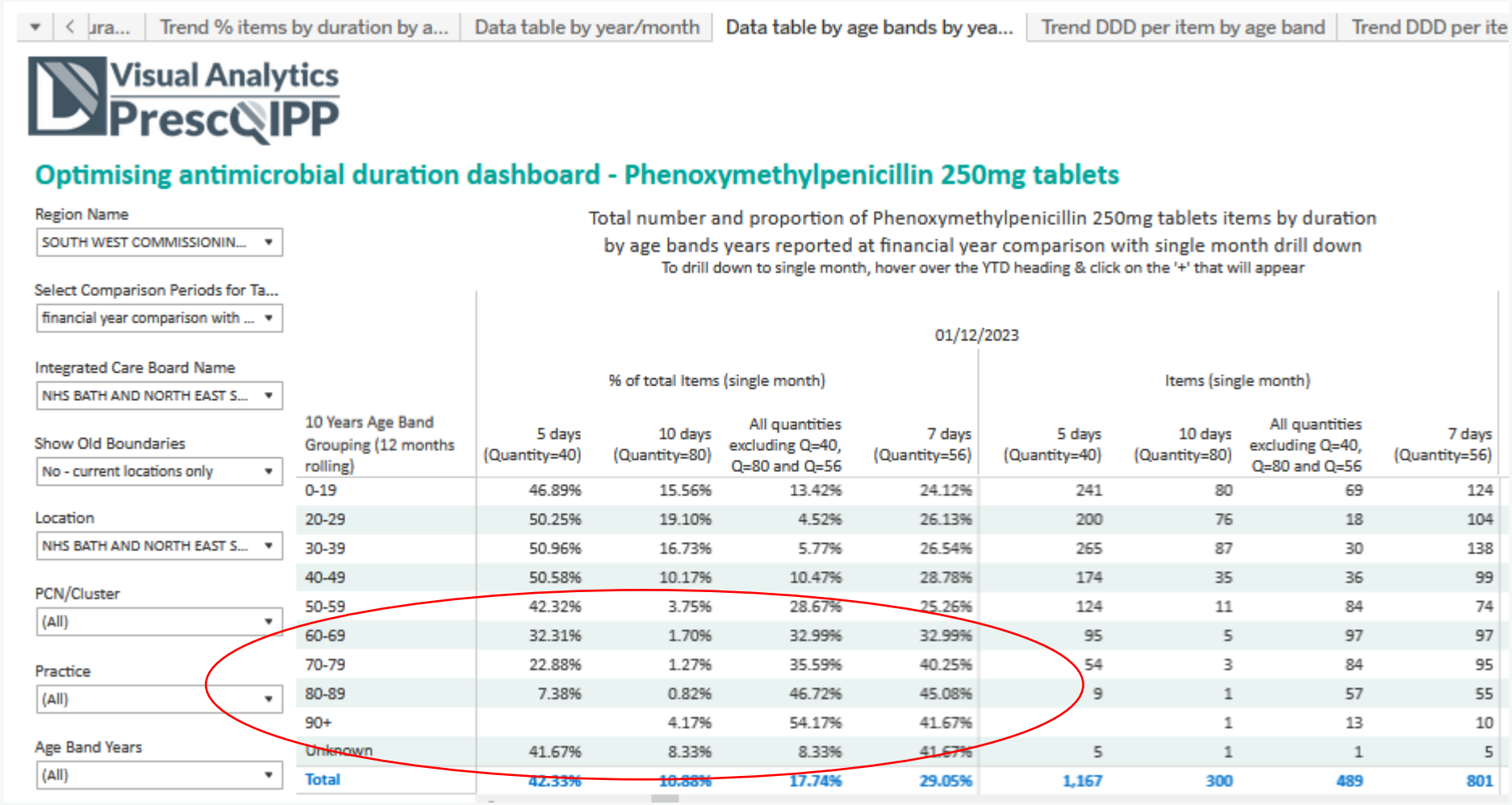

# PrescQIPP Optimising antimicrobial duration dashboard - PHENOXYMETHYLPENICILLIN

PCN view across BSW LOTS of variation

21%-60% 5-day duration

3% to 23% 10-day duration

# PrescQIPP Optimising antimicrobial duration dashboard - PHENOXYMETHYLPENICILLIN



ura... | Trend % items by duration by a... | Data table by year/month | Data table by age bands by yea... | Trend DDD per item by age band | Trend DDD per ite

Visual Analytics PrescQIPP

## Optimising antimicrobial duration dashboard - Phenoxymethylpenicillin 250mg tablets

Region Name: SOUTH WEST COMMISSIONIN...

Select Comparison Periods for Ta...: financial year comparison with ...

Integrated Care Board Name: NHS BATH AND NORTH EAST S...

Show Old Boundaries: No - current locations only

Location: NHS BATH AND NORTH EAST S...

PCN/Cluster: (All)

Practice: (All)

Age Band Years: (All)

Total number and proportion of Phenoxymethylpenicillin 250mg tablets items by duration by age bands years reported at financial year comparison with single month drill down

To drill down to single month, hover over the YTD heading & click on the '+' that will appear

01/12/2023

| 10 Years Age Band Grouping (12 months rolling) | % of total Items (single month) | | | | Items (single month) | | | |
|---|---|---|---|---|---|---|---|---|
| | 5 days (Quantity=40) | 10 days (Quantity=80) | All quantities excluding Q=40, Q=80 and Q=56 | 7 days (Quantity=56) | 5 days (Quantity=40) | 10 days (Quantity=80) | All quantities excluding Q=40, Q=80 and Q=56 | 7 days (Quantity=56) |
| 0-19 | 46.89% | 15.56% | 13.42% | 24.12% | 241 | 80 | 69 | 124 |
| 20-29 | 50.25% | 19.10% | 4.52% | 26.13% | 200 | 76 | 18 | 104 |
| 30-39 | 50.96% | 16.73% | 5.77% | 26.54% | 265 | 87 | 30 | 138 |
| 40-49 | 50.58% | 10.17% | 10.47% | 28.78% | 174 | 35 | 36 | 99 |
| 50-59 | 42.32% | 3.75% | 28.67% | 25.26% | 124 | 11 | 84 | 74 |
| 60-69 | 32.31% | 1.70% | 32.99% | 32.99% | 95 | 5 | 97 | 97 |
| 70-79 | 22.88% | 1.27% | 35.59% | 40.25% | 54 | 3 | 84 | 95 |
| 80-89 | 7.38% | 0.82% | 46.72% | 45.08% | 9 | 1 | 57 | 55 |
| 90+ | | 4.17% | 54.17% | 41.67% | | 1 | 13 | 10 |
| Unknown | 41.67% | 8.33% | 8.33% | 41.67% | 5 | 1 | 1 | 5 |
| Total | 42.33% | 10.88% | 17.74% | 29.05% | 1,167 | 300 | 489 | 801 |

10-day duration provides microbiological cure

5-day duration provides symptomatic resolution

# Optimising antimicrobial duration

## The BCW:

- **Behavioural theory at its core**
- **9 Intervention Functions:**
- **‘broad categories of means by which an intervention can change behaviour’**

Use rules to reduce the opportunity to engage in the behaviour (or to increase behaviour by reducing opportunity to engage in competing behaviours)
Set prescribing system to default to 5 day duration – Opt Out approach

Increase knowledge or understanding
Implement into guidelines with education. Use the national Duration resources.
Robust evidence base as metrics set on NICE guidance content
Shared learning via PrescQIPP AMS VPG WAAW 2023 webinar

**Nudge/** Change the physical or social context
Clinical decision support alerts
Position EMIS/SystmOne antibiotic pick list at 5 day duration quantity
Choose 5-day original packs
Use a SystmOne antimicrobial formulary
Integrate into infection pathway guidance

Use communication to induce positive or negative feelings to stimulate action
WAAW2022 Shorter is Better Brad Spellberg webinar
Include in local bulletins
Use local expert opinion to endorse


Provide an example for people to aspire to or emulate
Use PrescQIPP Optimising antimicrobial duration data for benchmarking
Use local opinion leaders to endorse and champion

Create an expectation of reward
NHS England Medicines Optimisation Opportunity
Local prescribing Incentive scheme

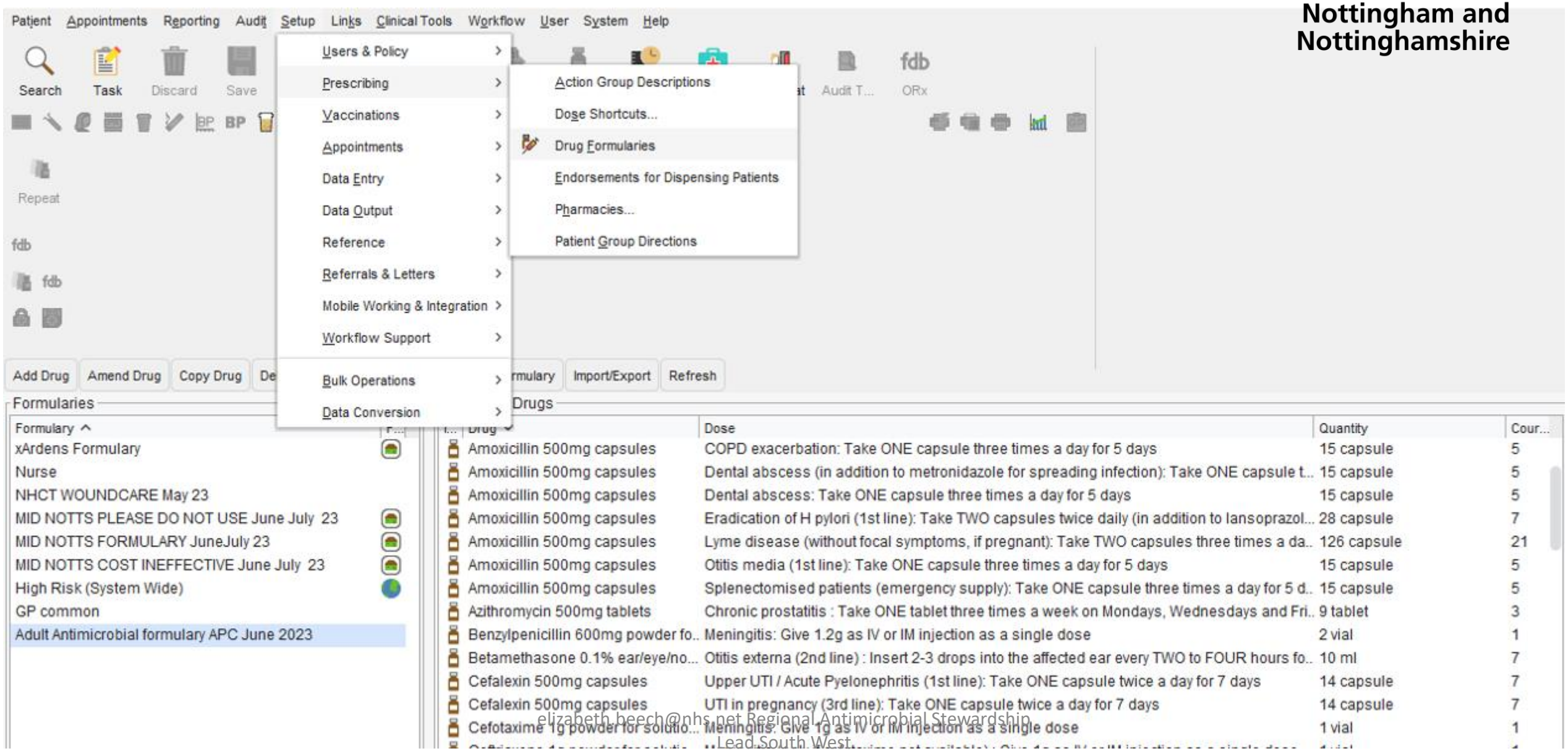
Increase means or reduce barriers to increase capability (beyond education or training) or opportunity (beyond environmental restructuring)
Make guidelines accessible and easy to use
Easy access to Duration infographics
Position EMIS/SystmOne antibiotic pick list at 5 day duration quantity
Use clinical decision support software and/or templates
Make 5 day original packs easily available

Impart skills
Practice prescribing visits
Expert webinars

Create an expectation of punishment or cost
Harm to patient and family and carers
Potential litigation
Impact of local drug-bug resistance rates
Reputational harm

# SystmOne Formulary

NHS
Nottingham and Nottinghamshire

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OptimiseRx

NHS
Nottingham and Nottinghamshire

Antibiotics: amoxicillin (or clarithromycin or doxycycline if amoxicillin unsuitable) recommended for the first-line treatment of community acquired pneumonia in non-pregnant patients aged 18 years and over

**Headline:**

Amoxicillin (or clarithromycin or doxycycline if amoxicillin unsuitable) is recommended as first-line treatment.

**Details:**

NICE (NG138, Sep 2019) recommend a 5-day course of amoxicillin (doxycycline or clarithromycin if amoxicillin unsuitable) for the first-line treatment of low severity (CRB65 severity score = 0) community acquired pneumonia. For moderately severe cases (CRB65 severity score = 1 or 2) a 5-day course of amoxicillin is recommended, adding clarithromycin if atypical pathogens are suspected. Doxycycline or clarithromycin are alternative first-line options if the patient is penicillin allergic or if recommended by microbiology. For high severity cases (CRB65 severity score = 3 or 4) a 5-day course of co-amoxiclav is recommended (with clarithromycin if atypical pathogens suspected) or levofloxacin if penicillin allergic or recommended by microbiology.

Refer to hospital if symptoms do not improve or suggest a more serious infection.

**Local Text:**

**References:**

NICE Guideline

NICE Guideline

Notts APC Antimicrobial Guideline

**Description of Rule Logic:**

Patients aged 18 years and over, not recorded as pregnant within 10 months, with community acquired pneumonia within 1 day, not previously prescribed antibiotics within 13 days, prescribed an oral antibiotic other than a recommended option (amoxicillin, clarithromycin, doxycycline, co-amoxiclav, levofloxacin).

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# ANTIBIOTIC DURATIONS FOR COMMON INFECTIONS IN PRIMARY CARE (ADULTS)

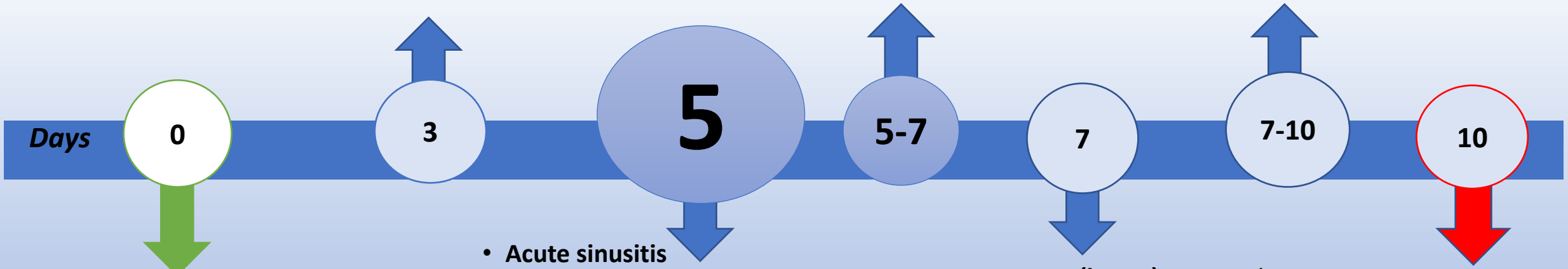
NHS England

NICE recommended durations of antibiotic courses for **first-line treatments**

- **UTI (lower)** *non – pregnant women*

- **Cellulitis and Erysipelas**
- **Acute otitis media** *with risk of complication or systemically unwell*

- **Pyelonephritis (acute)** *men and non-pregnant women*



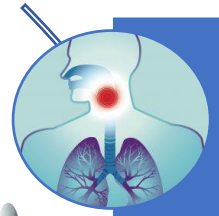

- **Sinusitis** *symptoms less than 10 days*
- **Acute cough** *no risk of complications*
- **Viral sore throat** *according to FeverPAIN/CENTOR score*
- **Asymptomatic bacteriuria**
- **Acute otitis media**

- **Acute sinusitis**
- **COPD *acute exacerbation***
- **Acute cough** *with risk of complications or systemically unwell*
- **Community Acquired Pneumonia (CAP)**
- **Sore throat** *according to FeverPAIN/CENTOR score for symptomatic cure only*

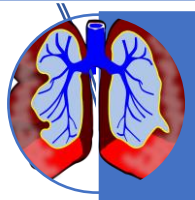
- **UTI (lower)** *men and pregnant women*
- **Catheter-associated UTI (CAUTI)**

- **Sore throat -** *according to FeverPAIN/CENTOR score* ***10 days for Penicillin V ONLY for microbiological cure***

# 5 DAYS FOR 5 INFECTIONS (ADULTS)

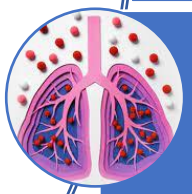



**Sore Throat (if antibiotic indicated)** Phenoxymethylpenicillin 500mg four times a day for 5 days for symptomatic cure **OR** clarithromycin 250mg to 500mg twice a day for 5 days **OR** erythromycin 250mg to 500mg four times a day for 5 days



**COPD (acute infective exacerbation)** Amoxicillin 500mg three times a day for 5 days **OR** doxycycline 200mg day 1 and then 100mg daily on days 2-5 **OR** clarithromycin 500mg twice a day for 5 days

**Acute Cough (if antibiotic indicated)** Doxycycline 200mg day 1 then 100mg daily on days 2-5 **OR** amoxicillin 500mg three times a day for 5 days **OR** clarithromycin 250mg to 500mg twice a day for 5 days **OR** erythromycin 250mg to 500mg four times a day or 500mg to 1g twice a day for 5 days

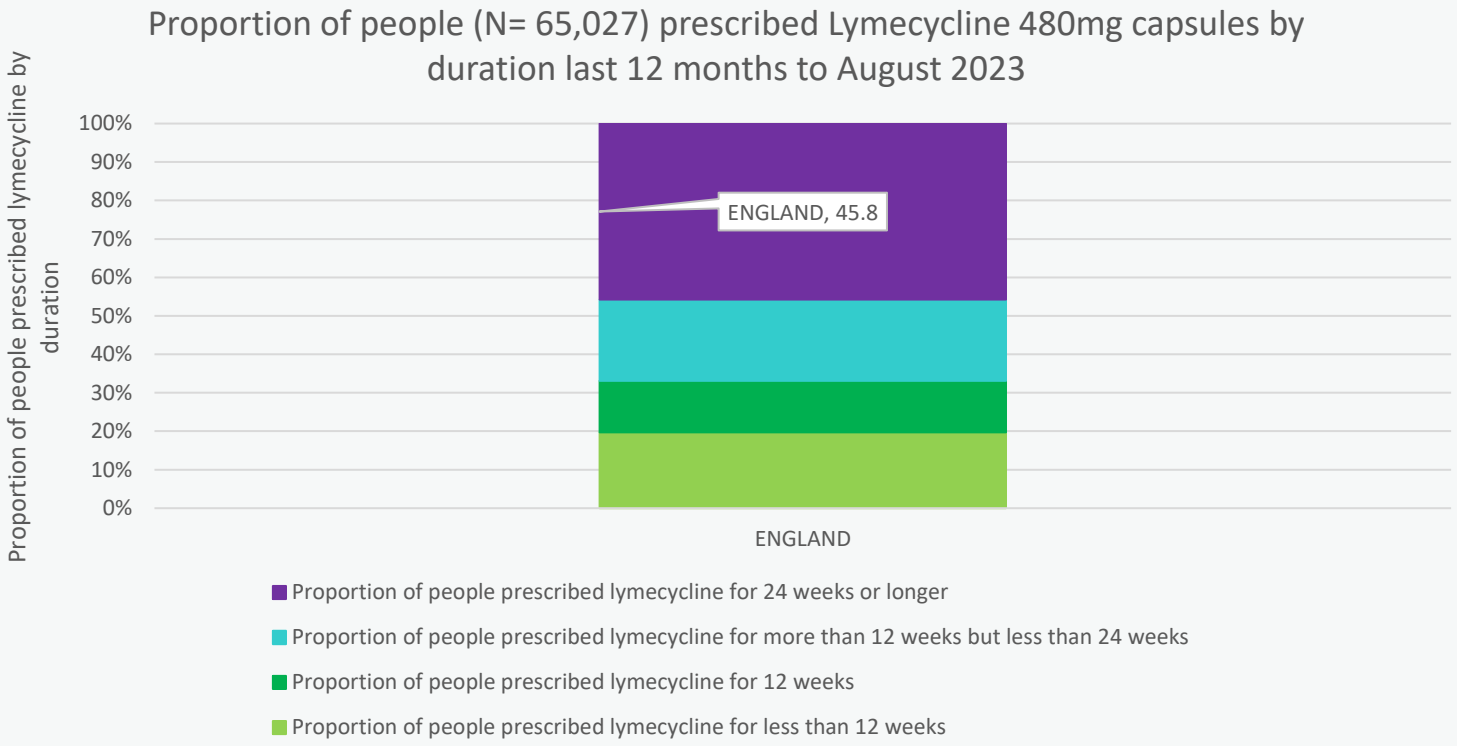


**Community Acquired Pneumonia** Amoxicillin 500mg to 1g three times a day for 5 days **OR** doxycycline 200mg on day 1, then 100mg daily on days 2-5 **OR** clarithromycin 500mg twice a day for 5 days **OR** erythromycin (in pregnancy) 500mg four times a day for 5 days

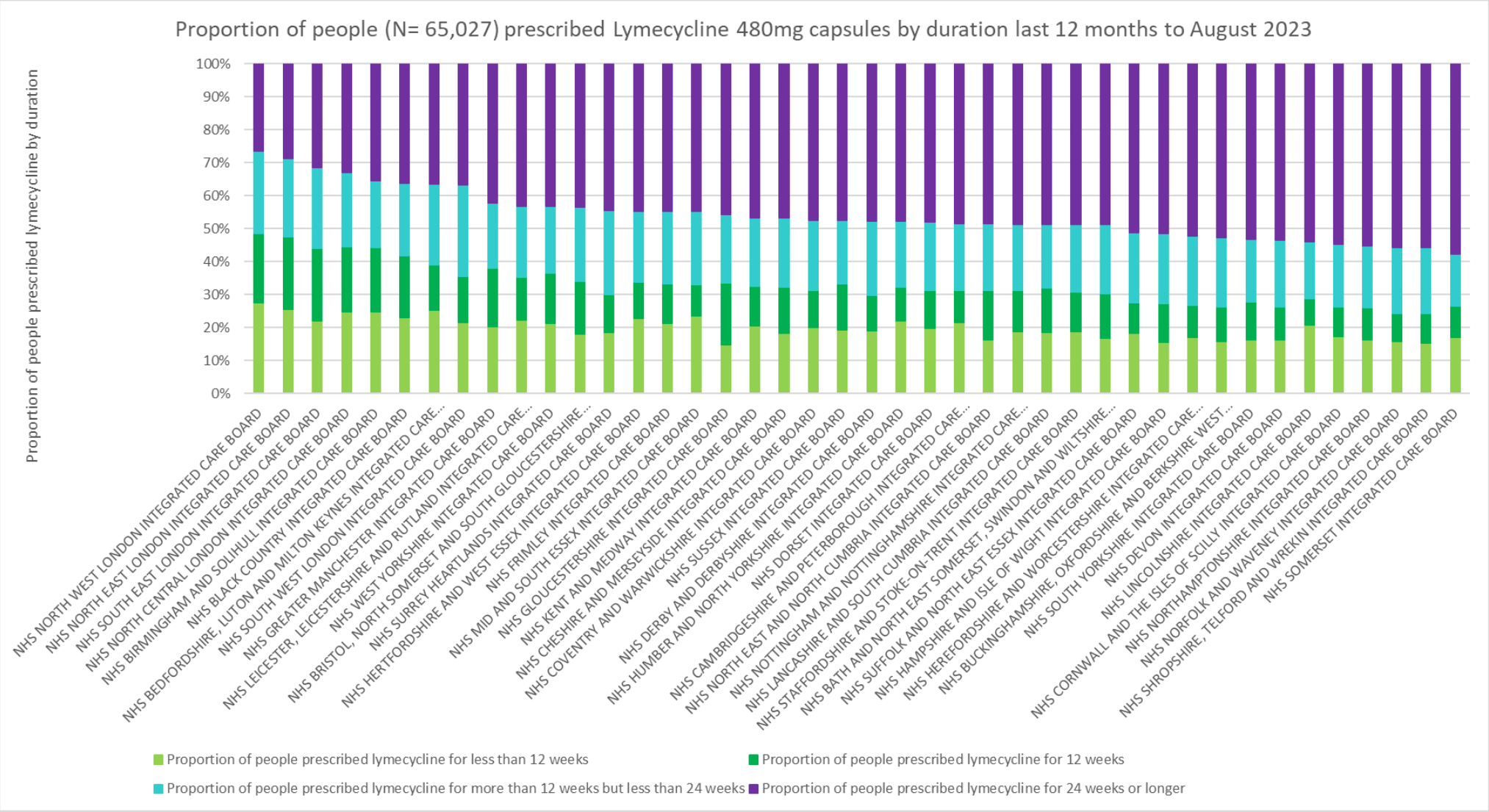
**Acute Sinusitis (if antibiotic indicated)** Phenoxymethylpenicillin 500mg four times a day for 5 days OR if systemically very unwell co-amoxiclav 500/125mg 1 three times a day for 5 days **OR** for penicillin allergy doxycycline 200mg on day 1, then 100mg daily on days 2-5 **OR c**larithromycin 500mg twice a day for 5 days **OR** erythromycin (in pregnancy) 500mg four times a day for 5 days

# Optimising antimicrobial duration - ACNE

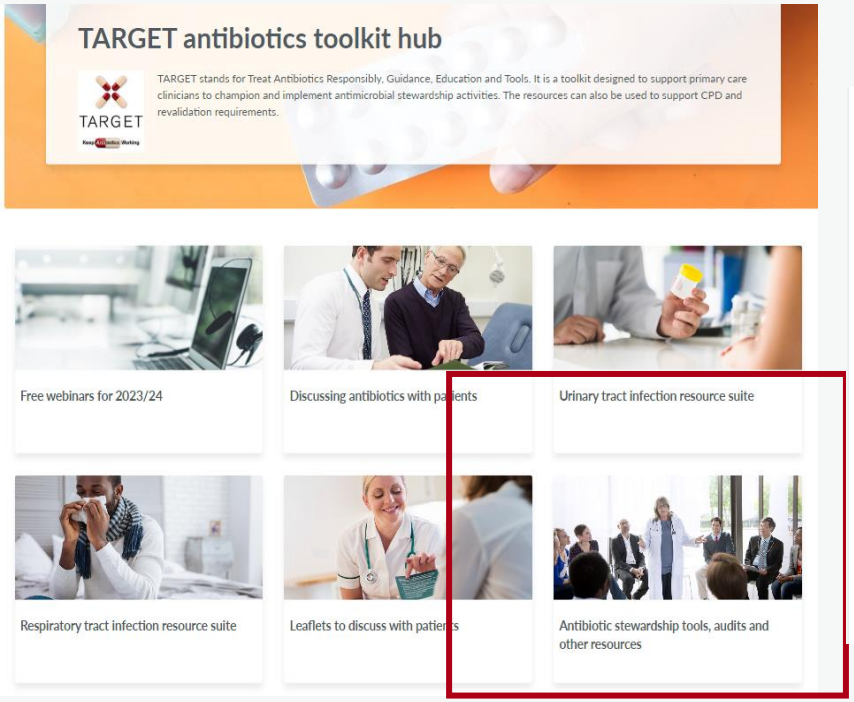
| | | | |
|---|---|---|---|
| Moderate to severe | Fixed combination of topical adapalene with topical benzoyl peroxide, applied once daily in the evening, plus either oral lymecycline or oral doxycycline taken once daily | • Oral component may be effective in treating affected areas that are difficult to reach with topical treatment (such as the back)<br>• Treatment with adequate courses of standard therapy with systemic antibiotics and topical therapy is a Medicines and Healthcare products Regulatory Agency (MHRA) requirement for subsequent oral isotretinoin, which is only recommended for severe acne (see recommendation 1.5.10 and the MHRA guidance on important risks and precautions for isotretinoin) | • Not for use in pregnancy, during breastfeeding (see recommendation 1.5.8), or under the age of 12<br>• Topical adapalene and topical benzoyl peroxide can cause skin irritation (see recommendation 1.5.7), photosensitivity, and bleaching of hair and fabrics<br>• Oral antibiotics may cause systemic side effects and antimicrobial resistance<br>• Oral tetracyclines can cause photosensitivity |
| Moderate to severe | Topical azelaic acid applied twice daily, plus either oral lymecycline or oral doxycycline taken once daily | • Oral component may be effective in treating affected areas that are difficult to reach with topical treatment (such as the back)<br>• Treatment with adequate courses of standard therapy with systemic antibiotics and topical therapy is an MHRA requirement for subsequent oral isotretinoin, which is only recommended for severe acne (see recommendation 1.5.10 and the MHRA guidance on important risks and precautions for isotretinoin) | • Not for use in pregnancy, during breastfeeding (see recommendation 1.5.8), or under the age of 12<br>• Oral antibiotics may cause systemic side effects and resistance<br>• Oral tetracyclines can cause photosensitivity |



# Optimising antimicrobial duration - ACNE



# Access the How To guides via TARGET toolkit
www.rcgp.org.uk/TARGETantibiotics




## How to..? Resources (repeat and long term antibiotics)

The 'How to...?' series aims to support primary care teams to review the appropriateness of antimicrobials in the evidence-based treatment and prevention of Acne Vulgaris and Chronic obstructive pulmonary disease (COPD).

Use the how to resources to manage and review adults on long-term and repeated antibiotics for the treatment and prevention of Acne Vulgaris and COPD exacerbations. The acne resource can also be used for children over the age of 12.

- How to... ? resource for Acne Vulgaris V1.1 (PDF file, 362 KB)
- How to... ? resource for COPD V1.1 (PDF file, 402 KB)

The TARGET acne 'How to...' worked examples are a resource designed to be used with the TARGET acne 'How to...' toolkit for the review of antibiotic prescribing of patients with acne in primary care.

- How to... ? worked examples for Acne Vulgaris V1 (PPT)

You can access the search strategy guides and documents for EMIS, SystmOne and Vision, as outlined in the How to guides by downloading this zip file. Please refer to the instruction guides.

# Thank You

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