

# Shortest Effective Course Lengths for antibiotics - amoxicillin

## Key messages for primary care prescribers

For more resources please see the [Shortest effective course lengths project page on FutureNHS](#)

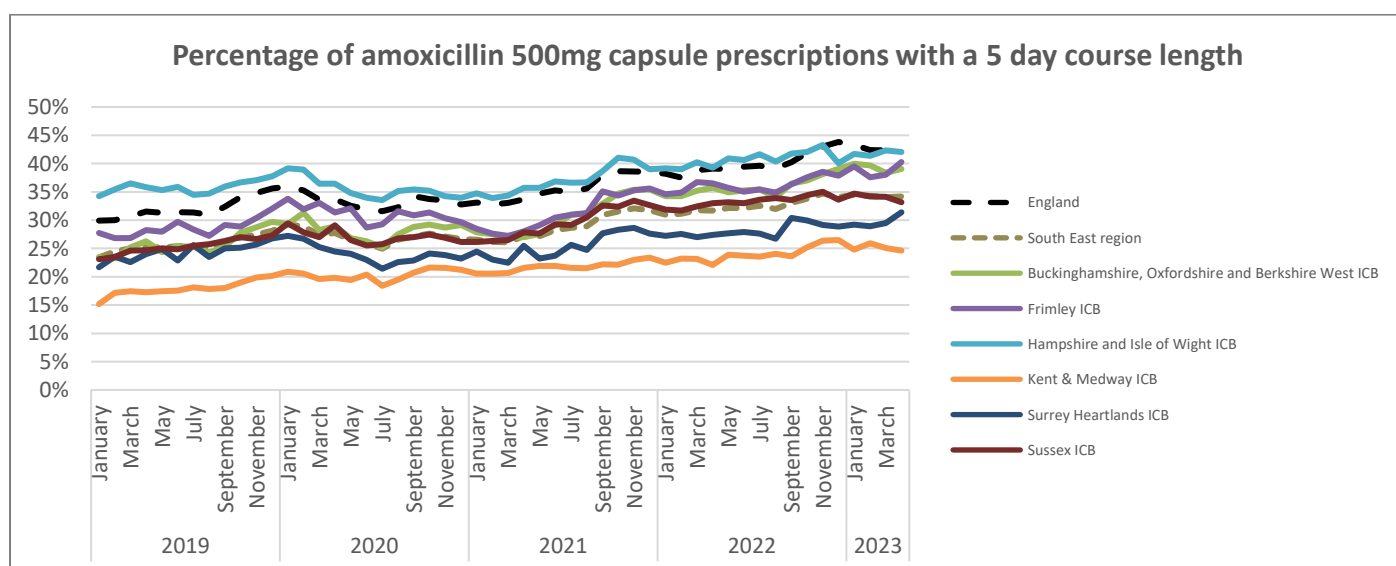
### What is the problem with current courses of antibiotics?

- Unnecessarily long courses of antimicrobials are one of the factors driving antimicrobial resistance and an increased risk of Clostridioides difficile infection in at-risk populations.
- Antibiotic course durations have often been based on a seemingly arbitrary and weak evidential basis<sup>1,2</sup>. With antimicrobial resistance recognised as a global threat to public health, reducing course lengths when the evidence demonstrates that this not only does no harm but is potentially safer for the patient<sup>3,4</sup>.
- ***“Each additional day of antibiotic therapy is associated with a 4% increase in risk of side effects and a 3% increase in risk of resistance” [Curran J 2022].***

Antimicrobials should only be used when they confer health benefits, in other words when the risk benefit ratio falls in favour of treatment.

### What is the aim of this project?

- **The project has set an ambition of achieving 75% of all amoxicillin 500mg capsule prescriptions being issued with 5 day course lengths, where NICE guidance recommends that duration, by March 2024.**
- This ambition is one of the 2023/24 [national medicines optimisation opportunities](#).
- Data from PrescQIPP’s [Optimising antimicrobial use](#) dashboard shows that 34% of amoxicillin 500mg prescriptions in the South East region were issued with a 5 day course (quantity of 15) in April 2023.
- This has increased from 23% in January 2019, however there is room for improvement as the majority of amoxicillin prescriptions are still for 7 day courses (60% in April 2023 compared to 52% nationally).



## What are we asking you to do?

The following 'quick wins' can be completed by ICBs and GP practices to help achieve this ambition:

- Enabling point-of-prescribing alerts (e.g. OptimiseRx and Scriptswitch) for amoxicillin 500mg capsules.
- Updating and auditing local antimicrobial prescribing guidelines to ensure alignment with NICE Guidance.
- Reviewing your data in PrescQIPP's [Optimising antimicrobial use](#) dashboard, completing an audit of course lengths and a review of local prescribing.
- Utilising the [TARGET toolkit resources](#).
- Highlighting the ambition and available resources in GP Bulletins and other primary care communications.

## Current guidelines for amoxicillin 500mg capsules

Condition/diagnosis	Course length	NICE Guidance link	SCAN Guidelines link
Acute cough	5 days	<a href="https://www.nice.org.uk/guidance/ng120">https://www.nice.org.uk/guidance/ng120</a>	<a href="https://viewer.microguide.global/SCAN/SCAN#content,75f7dfd8-81d2-4683-8e85-1a75bf73c09e">https://viewer.microguide.global/SCAN/SCAN#content,75f7dfd8-81d2-4683-8e85-1a75bf73c09e</a>
Acute exacerbation of chronic obstructive pulmonary disease (COPD)	5 days	<a href="https://www.nice.org.uk/guidance/ng114">https://www.nice.org.uk/guidance/ng114</a>	<a href="https://viewer.microguide.global/SCAN/SCAN#content,7db8c2ab-ec6b-4db5-aaa5-1a663b7c0b6c">https://viewer.microguide.global/SCAN/SCAN#content,7db8c2ab-ec6b-4db5-aaa5-1a663b7c0b6c</a>
Community-acquired pneumonia	5 days	<a href="https://www.nice.org.uk/guidance/ng138">https://www.nice.org.uk/guidance/ng138</a>	<a href="https://viewer.microguide.global/SCAN/SCAN#content,40e4d110-2bd3-4c69-8af1-151fbafd8f2b">https://viewer.microguide.global/SCAN/SCAN#content,40e4d110-2bd3-4c69-8af1-151fbafd8f2b</a>
Otitis media	5 to 7 days	<a href="https://www.nice.org.uk/guidance/ng91">https://www.nice.org.uk/guidance/ng91</a>	<a href="https://viewer.microguide.global/SCAN/SCAN#content,d0ef1100-d026-4d52-90ce-4c15c1ee2936">https://viewer.microguide.global/SCAN/SCAN#content,d0ef1100-d026-4d52-90ce-4c15c1ee2936</a>
Bronchiectasis (non-cystic fibrosis)	7 days	<a href="https://www.nice.org.uk/guidance/ng117">https://www.nice.org.uk/guidance/ng117</a>	No SCAN Guidelines for this condition
Catheter-associated urinary tract infections (only if culture results available and susceptible)	7 days	<a href="https://www.nice.org.uk/guidance/ng113">https://www.nice.org.uk/guidance/ng113</a>	<a href="https://viewer.microguide.global/SCAN/SCAN#content,9f71d943-7448-4a58-97df-c7f539222072">https://viewer.microguide.global/SCAN/SCAN#content,9f71d943-7448-4a58-97df-c7f539222072</a>
Lower urinary tract infections (for pregnant women, only if culture results available and susceptible)	7 days	<a href="https://www.nice.org.uk/guidance/ng109">https://www.nice.org.uk/guidance/ng109</a>	<a href="https://viewer.microguide.global/SCAN/SCAN#content,0b64d2d9-324a-4b30-be37-1157d212596b">https://viewer.microguide.global/SCAN/SCAN#content,0b64d2d9-324a-4b30-be37-1157d212596b</a>

Inclusion in this table does not infer amoxicillin is first line treatment, please refer to NICE or SCAN for information regarding where amoxicillin treatment is positioned for that infection. Always check the allergy status of your patient.

## References

1. [The Maxwell Finland Lecture: for the duration-rational antibiotic administration in an era of antimicrobial resistance and clostridium difficile - PubMed \(nih.gov\)](#)
2. [The New Antibiotic Mantra — “Shorter Is Better” - PMC \(nih.gov\)](#)
3. [Antibiotic resistance as big a threat as climate change – chief medic | Antibiotics | The Guardian](#)
4. [Antimicrobial resistance: a global threat | UNEP - UN Environment Programme](#)