UNIVERSITY OF LEEDS

Lowering AntiMicrobial Prescribing (LAMP)

UK Health Security Agency

NHS

Dear Practice Manager and colleagues,

Antimicrobial resistance (AMR) is a growing global crisis, projected to cause 39 million deaths over the next 25 years if decisive action is not taken. [1] Despite increasing awareness, challenges such as limited funding, lack of widespread diagnostics, and insufficient public knowledge continue to impede progress.

General practitioners (GPs) play a key role in antibiotic stewardship but face significant barriers in controlling AMR. Many prescriptions are issued based on symptoms rather than confirmed bacterial infections, leading to unnecessary antibiotic use. Patient expectations and pressure to prescribe antibiotics contribute to overprescribing, which accelerates resistance. [2]

> **"About a million people die every year because of the spread of microbial resistance, and that figure will rise over the next 25 years."**
>
> **Professor Dame Sally Davies GCB DBE FRS FMedSci UK Special Envoy on Antimicrobial Resistance**

Studies show that **GPs are four times more likely to prescribe antibiotics when patients specifically request them**, even when clinical indicators do not support such treatment. [3] Educating patients on when antibiotics are truly necessary and when they are not is important.

Guidelines advocate for prudent antibiotic use but adherence is inconsistent, particularly for respiratory tract infections (RTIs), which account for a significant portion of primary care antibiotic prescriptions. Many RTIs are viral, making antibiotics **ineffective and potentially harmful** by promoting AMR. Strengthening GP education, raising patient awareness, and enhancing diagnostic support are essential steps in reducing inappropriate antibiotic use and curbing the growth of AMR. **Many patients expect antibiotics for self-limiting conditions, such as colds and mild fevers**, and general practitioners (GPs) often feel pressured to prescribe them, especially when antibiotics are perceived as "strong medicine" [4]

Prudent antimicrobial prescribing in all settings will it improve stewardship and following for example NICE guidance on antimicrobial stewardship Antimicrobial stewardship | Medicines guidance | BNF | NICE [5] or the TARGET resource Course: TARGET antibiotics toolkit hub | RCGP Learning [6] is recommended.

If you require further assistance please contact Michael Crookes, michael.crookes@nhs.net **tel: 07920 581594**

Yours sincerely,

Paul Carder, Head of West Yorkshire Research and Development

Partners:

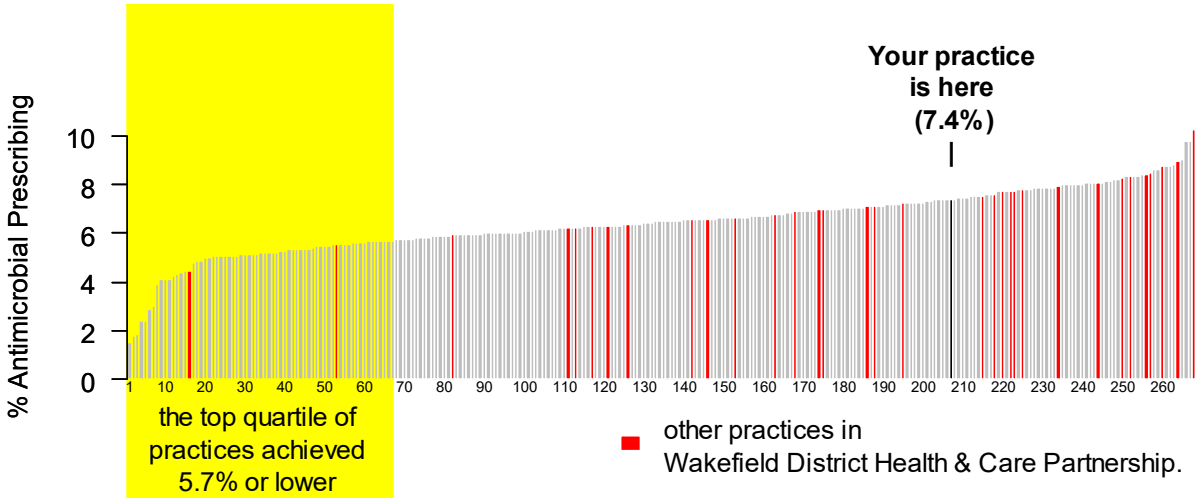
Bradford District and Craven Health and Care Partnership
Calderdale Cares Partnership
Kirklees Health and Care Partnership
Leeds Health and Care Partnership
Wakefield District Health & Care Partnership.
UK Health Security Agency (UKHSA)
University of Leeds
West Yorkshire Health and Care Partnership
West Yorkshire Integrated Care Board
West Yorkshire Research & Development

Can you reduce how many of your patients are prescribed an antibiotic?

College Lane Surgery

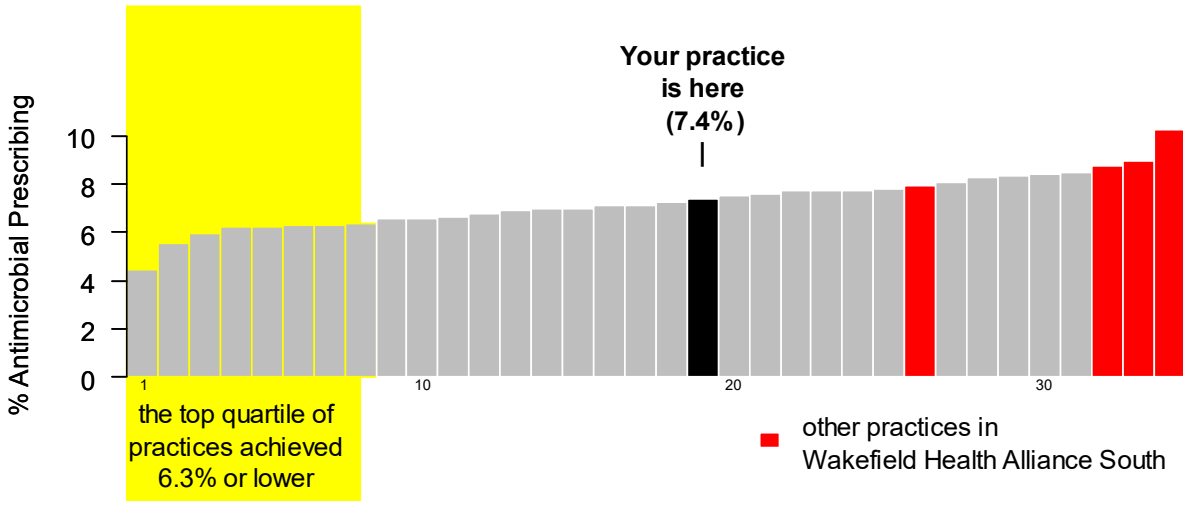
Achievement in participating practices across West Yorkshire Health and Care Partnership

The graph below demonstrates: Your practice (black bar) and percentage of the practice population prescribed an antibiotic (803) in the last 8 weeks; a lower value indicates better clinical practice.



- Achievement throughout West Yorkshire Health and Care Partnership (range 1.5% to 10.3%)
- The best achieving practices within West Yorkshire Health and Care Partnership (yellow box – achieving 5.7% or below)
- Other practices within your place (red bars, Wakefield District Health & Care Partnership.)

Achievement in participating practices across your PCN and Place



- Achievement within your place (range 4.4% to 10.3%)
- The best achieving practices within your place (yellow box – achieving 6.3% or below)
- Achievement within your PCN (range 7.4% to 10.3%)
- Other practices within your PCN (red bars, Wakefield Health Alliance South)

Your practice achievement on individual indicators:

Key indicators for the last 8 weeks	Number of patients	Percentage	Top quartile of practices in ICB achieved:
Prescribed an antibiotic — This measures total number of antibiotic prescriptions for all indications issued in the data collection period.	803	7.38%	5.7% or below
Any age repeat prescription antibiotic >6 months — We remind practices to review patients on antibiotics on repeat regularly – there have been examples of prophylactic antibiotics for UTI being prescribed for years with little or no benefit seen after 6 months.	19	0.17%	0.1% or below
Aged 16-64 with acute prescription of a UTI related antibiotic excluding pregnant women — Guidance for UTI prescribing has changed several times over recent years which can cause confusion. This measure looks at all acute prescriptions for UTI in practices for all patients aged 16-64 years.	19	0.29%	0.2% or below
Prescribed Co-amoxiclav — Co-amoxiclav is an antibiotic which should be reserved for a few specific indications, this measure will allow you to review appropriateness of all co-amoxiclav prescribing.	55	0.51%	0.1% or below
COPD - >2 rescue packs (antibiotic and steroid) issued in the last 12 months — Guidance recommends for people who have used 3 or more courses of oral corticosteroids and/or oral antibiotics in the last year, investigate the possible reasons for this.	26	0.24%	0.1% or below
0-9 Year olds prescribed antibiotic for RTI (upper & lower) — West Yorkshire is almost in the worst quartile for prescribing of antibiotics for children. Practices should be cautious about prescribing antibiotics for children, especially if there is doubt that the infection may be viral in origin.	5	0.48%	0.7% or below
Aged 65+ Prescribed an antibiotic for UTI - No Urine culture — Guidance recommends urine culture in UTI in older adults - ideally before antibiotics are started due to the risks of resistance increasing. Consider review of patients who did not have MSU when antibiotic prescribed.	12	0.47%	0.2% or below
Acute prescription of topical cream — Topical antimicrobials can also contribute to antibiotic resistance if used inappropriately. This measure is specifically focusing on the prescribing of fusidic acid containing products e.g. Fucidin to review whether use is appropriate.	52	0.48%	0.3% or below
Coded sinusitis and prescribed an antibiotic that's not penicillin with no allergy status — Guidance states only in cases lasting longer than 10 days (unless the patient is systemically very unwell or at high risk of complications) and if an antibiotic is necessary first line treatment is phenoxymethylpenicillin.	7	0.06%	0%
Overall number of respiratory tract infection with an antibiotic prescribed (upper & lower) — The majority of respiratory tract infections will be viral in origin – otitis media, sinusitis, cough and sore throat, in these circumstances antibiotics should not be first line in most cases.	62	0.57%	0.7% or below

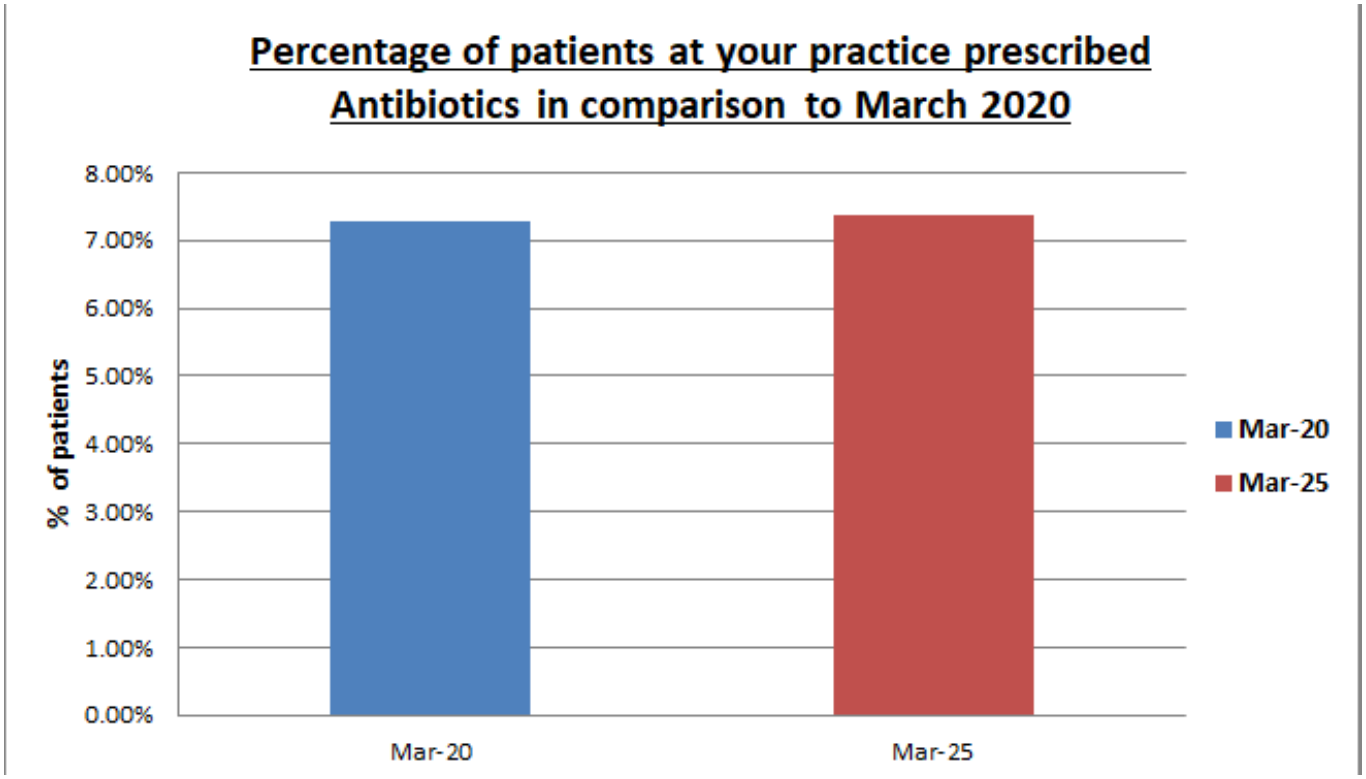
What has changed?

Since this time five years ago Antimicrobial prescribing in your practice has increased by

10%

Don't be disheartened, there may be many clinical reasons why there wasn't a reduction in your antibiotic prescribing. Childhood diseases are becoming prevalent once more and Covid-19 has not gone away, can you identify anything that may have influenced your prescribing over the last 2 months? Have there been any localised outbreaks of illness that required you to prescribe antibiotics? You can use the attached action plan to help with this.

Can you reduce prescribing in the fifth year of LAMP? This is your comparison to this stage at baseline March 2020



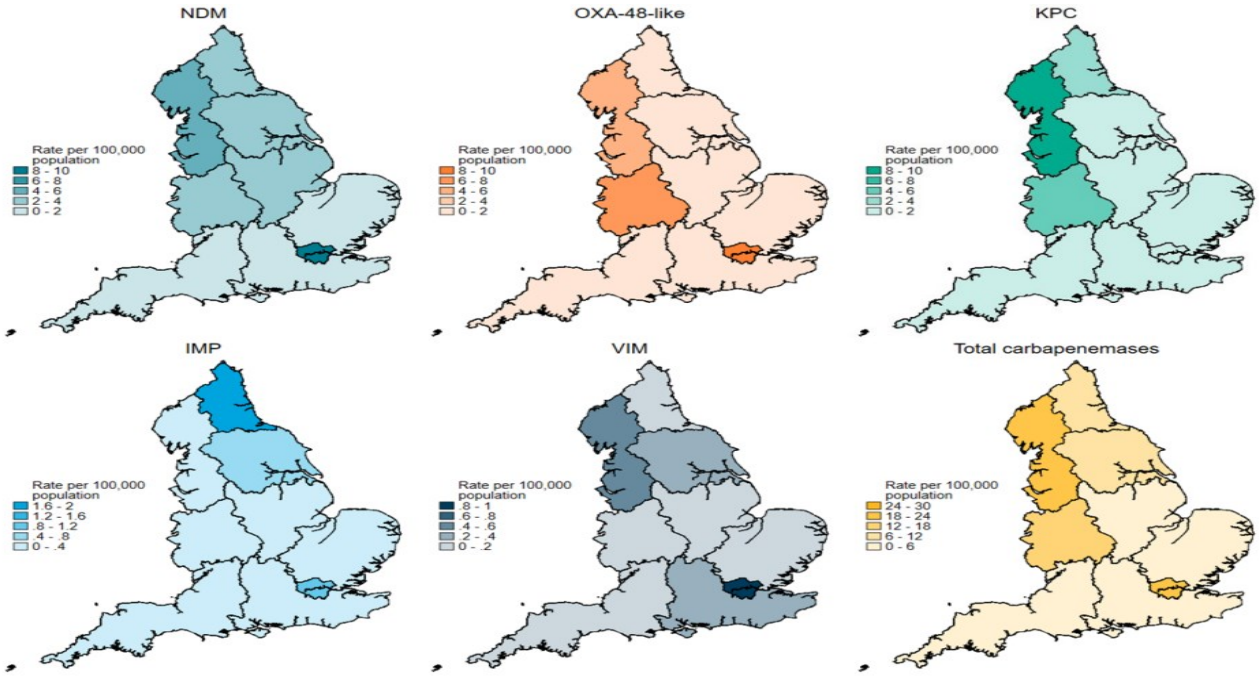
Public Health Susceptibility Data - Acquired carbapenemase-producing Gram-negative organisms (CPO)

In England we recognise the 'big 5' carbapenemase families typically associated with CPO; NDM, OXA-48, KPC, IMP and VIM. These are the carbapenemase enzymes most commonly reported in the UK, but there are other families of carbapenemases that can cause resistance. Carbapenemases can be named after their place of original identification (e.g., New Delhi Metallo-beta-lactamase, NDM), or their mechanism of action (e.g., imipenemase, IMP).

Figure 1 illustrates the regional differences in the distribution of the 'big 5' across England in 2023. There is substantial variation between regions and carbapenemase enzymes. This is variation has arisen due to large outbreaks originating in hospital settings that have resulted in endemicity (e.g., KPC in Greater Manchester, NDM in London and IMP in the North East). Fortunately in Yorkshire and Humber we have amongst the lowest rates of the 'big 5' per population.

Figure 1: Regional notifications per 100,000 population of acquired carbapenemase-producing Gram-negative bacteria by carbapenemase family in England, 2023

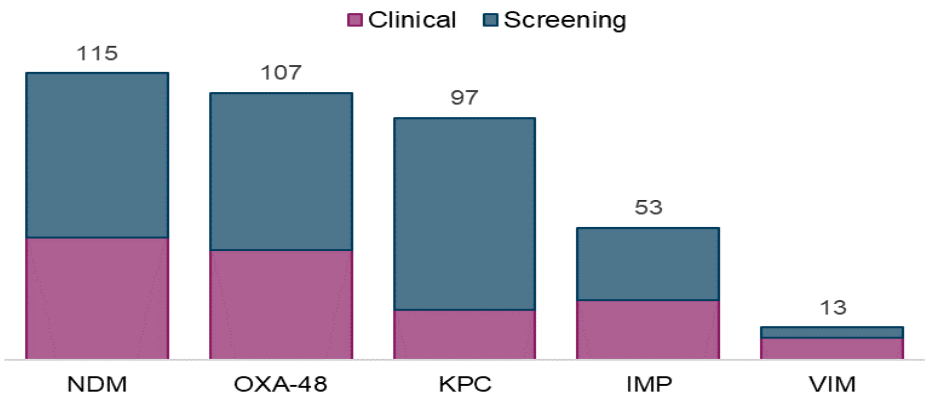
Source: English surveillance programme for antimicrobial utilisation and resistance (ESPAUR) report 2023 to 2024



There were **385 CPO cases reported from NHS acute trust laboratories in Yorkshire and Humber in 2024** (**Figure 2**), with NDM, OXA-48 and KPC being the most commonly reported enzymes.

Figure 2 illustrates the split between clinical samples (e.g., urine, blood, sputum) vs screening samples (typically a rectal swab). Currently we don't routinely screen all hospital admissions for CPO so often our detection from screening either represents swabs done in an outbreak setting or swabbing of patients who have been identified as being at high risk of carrying a CPO e.g., been an inpatient in a hospital abroad or contact of another CPO case.

Figure 2: Acquired CPO cases identified in Yorkshire and Humber residents by enzyme and sample type, 2024



Have you reviewed and updated your team plan of action?

- What are we going to do (e.g. which indicators would you like to review if any)?

- When are we going to do it (opportunistic, systematic, a combination or another time)?

- Who will be involved (GPs, pharmacist, administrative staff)?

Frequently Asked Questions:

Where do these data sets come from? These West Yorkshire data sets were extracted from SystmOne and EMIS by the Place based teams on Wednesday 5th of March 2025.

How can we share this at practice level? Your latest report will be available online via your general practice stack. You can access this via the QR Code or web link for your GP practice stack **https://api.ltb.io/show/BHJGH**. You can also download a PDF version and print if necessary.

Where can I find the searches in the GP IT system? The searches can be found at:
Bradford District & Craven -Reporting > clinical reporting > data quality > meds mgmt. > LAMP year two
Calderdale, Kirklees and Wakefield
SystmOne:- Data Quality > CCGs Collaborative> LAMP Antibiotic data
EMIS Web:- CHKW CCGs Enterprise > CCGs Collaborative > Antibiotics
Leeds — SystmOne:- NHS Leeds CCG > Meds Opt Provider Team > LAMP searches FINAL
Leeds — EMIS Web:- Leeds Central Reporting Unit > Medicines Opt (Provider) > LAMP searches

Report 36 April 2024	Report 37 May 2024	Report 38 July 2024	Report 39 September 2024	Report 40 November 2024	Report 41 January 2025	Report 42 March 2025

References:

1) Darzi, A. (2024). We need to do more to keep antibiotics working. *BMJ*, 387, q2491. https://doi.org/10.1136/bmj.q2491

2) Domen, J., Aabenhus, R., Balan, A., Bongard, E., Böhmer, F., Bralić Lang, V., Bruno, P., Chlabicz, S., Colliers, A., García-Sangenís, A., Ghazaryan, H., Kowalczyk, A., Jensen, S., Lionis, C., van der Linde, T. M., Malania, L., Pauer, J., Tomacinschii, A., Vellinga, A., Zastavnyy, I., Goossens, H., Butler, C. C., van der Velden, A. W., & Coenen, S. (2024). The effect of a general practitioner's perception of a patient request for antibiotics on antibiotic prescribing for respiratory tract infections: secondary analysis of a point prevalence audit survey in 18 European countries. *BJGP Open*. https://doi.org/10.3399/BJGPO.2024.0166

3) Domen, L., et al. (2024). The Global Burden of AMR and Strategies for Reducing Antibiotic Prescribing. *Journal of Global Health*, 21(3), 120-130.

4) Ramdas, N., Meyer, J.C., Schellack, N., Godman, B., Turawa, E., & Campbell, S.M. (2025). Knowledge, attitudes, motivations, expectations, and systemic factors regarding antimicrobial use amongst community members seeking care at the primary healthcare level: A scoping review. *Antibiotics, 14*(78). https://doi.org/10.3390/antibiotics14010078

5) Antimicrobial stewardship | Medicines guidance | BNF | NICE - https://bnf.nice.org.uk/medicines-guidance/antimicrobial-stewardship/

6) Course: TARGET antibiotics toolkit hub | RCGP Learning - https://elearning.rcgp.org.uk/course/view.php?id=553