

Midlands Antibiotic Amnesty campaign

November 2023



England

Presented by:
Dr Conor Jamieson, Regional Antimicrobial Stewardship Lead

Background

Antimicrobial resistance & the environment

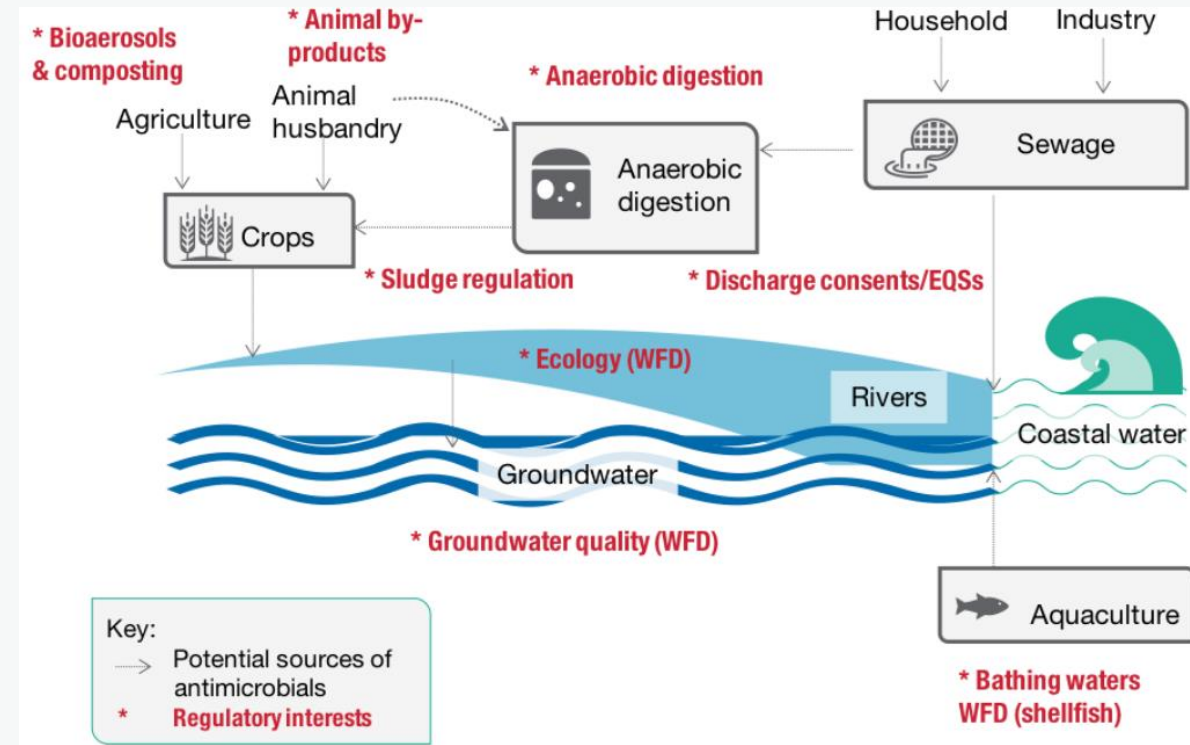
UK National Action Plan for antimicrobial resistance (AMR)

2019-2024

‘To deepen understanding of AMR in the environment, the UK will.... increase public awareness of the hazard and risk of AMR in the environment’

2.4.2 Minimise Antimicrobial Contamination

‘There are many sources of this and other antimicrobial contamination [in the environment] (including household disposal of unused antibiotics)’



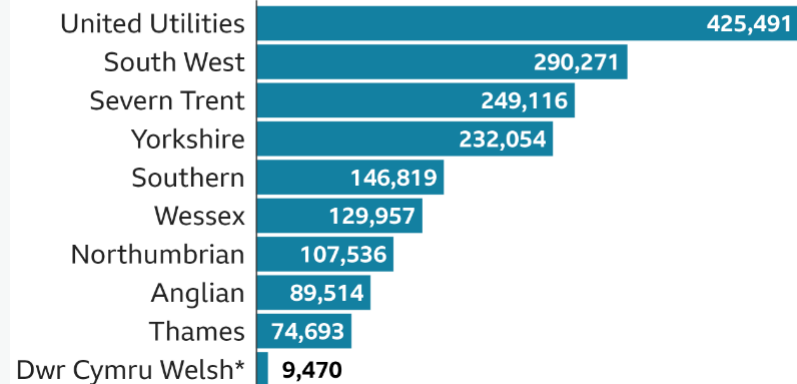
Fifty-seven swimmers fall sick and get diarrhoea at world triathlon championship in Sunderland

Athletes competing on stretch of UK coastline where reduced water quality at centre of dispute over sewage discharges



Water companies discharged sewage into rivers and seas for nearly 1.8 million hours

Hours of storm overflows in England in 2022



Climate > News

Water firms admit pumping raw sewage into UK rivers and seashores 1,000 times a day

Current situation is 'simply not good enough', Environment Agency boss says

Zoe Tidman • Thursday 31 March 2022 18:37 • 12 Comments





Impact of coastal water contamination – Beach Bum survey

- Examined 97 bathing water samples from England and Wales
- Looked for a particular antibiotic resistant bacteria
- Surfers were 3 times more likely to be carrying this organism in their gut than non-surfers

Sewage in water: a growing public health problem

A joint opinion piece from Professor Chris Whitty, Chief Medical Officer for England, Jonson Cox, Ofwat chair and Emma Howard Boyd, Environment Agency chair.

From: [Department of Health and Social Care](#)

Published 27 June 2022

"When bacteria from human faeces (coliforms) are ingested, it increases the risk of **significant infections** including **antibiotic resistant bacteria**."

"...Nobody wants a child to ingest human faeces."

"...Our rivers, seas and waterways should therefore be free from sewage to reduce risk to the public..."

Antibiotic disposal & Antibiotic amnesty

Leftover antibiotics – how come?

- Excessive antibiotic prescribing (numbers of prescriptions)
- Excessive durations of treatment



- Self limiting condition/symptomatic resolution
- Variable adherence to treatment regimen (frequency/side effects)

- Left over/unused antibiotics



Leftover antibiotics – what’s the problem?

Of 500 UK patients prescribed antibiotics in previous 12 months¹:

- **14%** had leftovers
 - Only **8%** returned to pharmacy for safe disposal
 - Almost **1/3** threw them away
 - **1/3** kept them for reuse

OECD report²:

- **63%** of medicines in UK are discarded in household waste
 - **11%** are discarded down toilets and sinks

258 of world’s rivers showed traces of pharmaceutical contamination, including trimethoprim in rivers in 4/5 continents³



¹McNulty et al. BMJ Open 2019;9:e030845. doi: 10.1136/bmjopen-2019-030

² Organisation for Economic Development 2022

³ Wilkinson et al. PNAS 2022;119: 8. <https://doi.org/10.1073/pnas.2113947119j>

Why do we need an antibiotic amnesty?

- Raise awareness of means of **safe disposal of antibiotics and other medicines**
 - Community pharmacies
 - Veterinary practices
- Prevent **unsafe disposal** – limit impact on water quality, aquatic life, wildlife
- Prevent **hoarding or sharing with others** – limit potential for inadequate/inappropriate treatment driving resistance
- Raise awareness and spread information

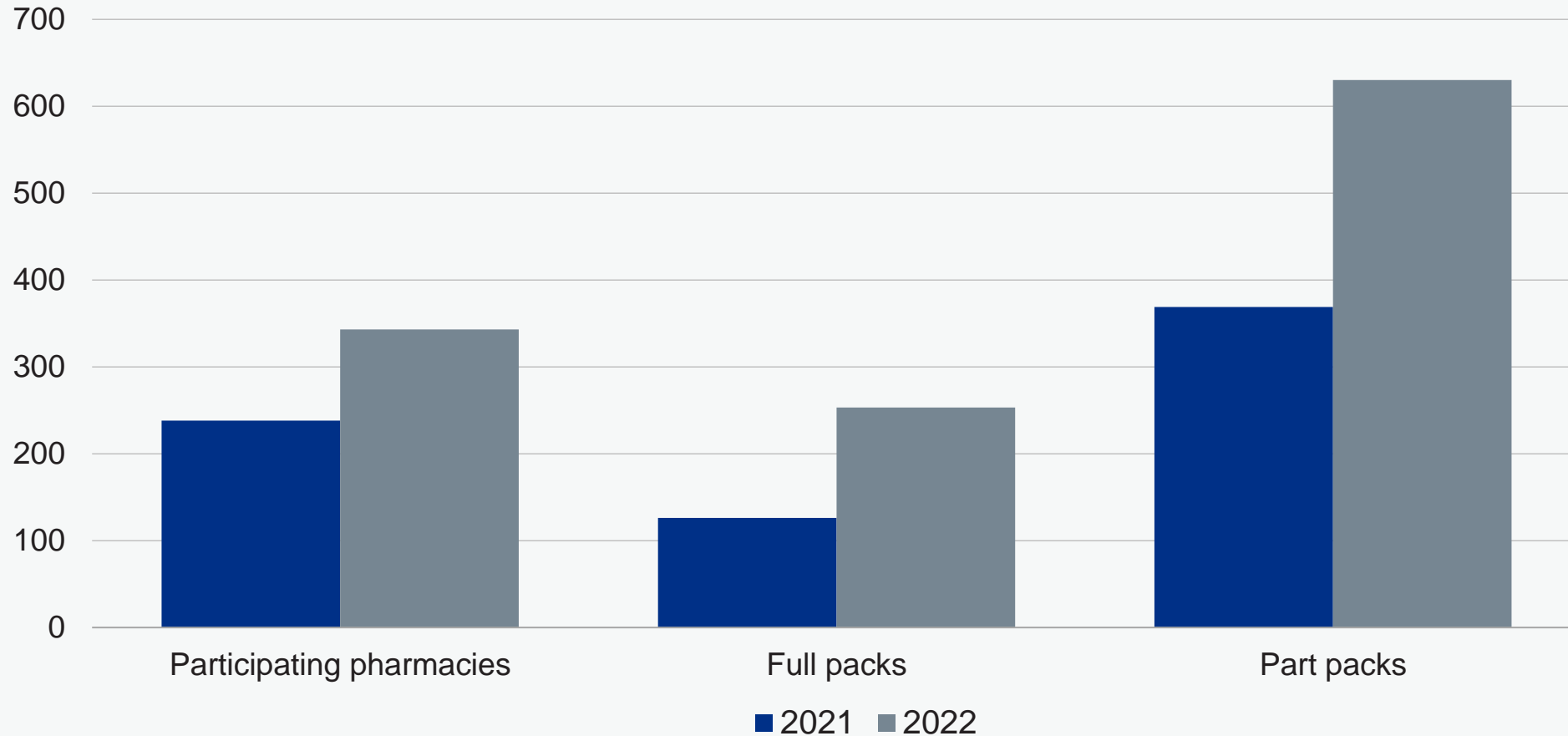


Irish study: **75%** of members of the public disposed of medicines appropriately if they had been given advice on disposal practices from a healthcare professional*

Midlands Antibiotic Amnesty campaign

Results from 2021 & 2022 Amnesty campaigns

Number



2021 Amnesty campaign: 2 weeks; 2022 campaign: 4 weeks

Antimicrobial
resistance

25 July 2022



By Conor Jamieson, Donna
Cooper, Rakhi Aggarwal,
Marco Ercolani & Angela
Barker

Antibiotic amnesty – positive action to tackle antimicrobial resistance through community pharmacies

The unsafe disposal of antibiotics is hazardous to both the environment and human health — community pharmacy could help address these issues through a nationally coordinated antibiotic amnesty.

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Antimicrobial
resistance

26 July 2022



By **Carolyn Wickware**

Pharmacies receive nearly 500 packs of medicine during regional antibiotic amnesty

Exclusive: As part of World Antimicrobial Awareness Week in 2021, community pharmacies in the Midlands held an antibiotic amnesty and received 500 packs of medicines for safe disposal.

Antimicrobial
resistance

09 November 2022



By **Corrinne Burns**

Royal Pharmaceutical Society encourages UK-wide antibiotic amnesty

The Society warns that unsafe disposal of medicines can increase the spread of resistance genes among bacteria, putting human and animal health at risk.

Antimicrobial
resistance

26 September 2023



By **Tammy Lovell**

Nearly 900 packs of medicine returned to Midlands pharmacies during regional antibiotic amnesty

The Scottish government has said it also intends to run an amnesty campaign via community pharmacies.

Antibiotic Amnesty

Tackling antimicrobial resistance through safe disposal

Leftover antibiotics should be disposed of safely to reduce the risk of AMR – this prevents hoarding, inappropriate reuse or disposing of them via domestic waste streams. Contaminating the environment and water courses with antibiotic residues can spread resistance genes among bacteria, putting our One Health at risk.

Many people do not realise that leftover antibiotics can be returned to pharmacies or veterinary practices for safe disposal. Our amnesty campaign aims to tackle that, by supporting you to run local amnesty campaigns to raise awareness of simple action that can help to tackle AMR.

On this page you will find advice on running an antibiotic amnesty campaign, and multi-lingual resources to support your local setting.

Running an Antibiotic Amnesty We've put together some advice on **Running an Antibiotic Amnesty Campaign.**

Amnesty Resources **Download resources to promote your amnesty.**

JOURNAL ARTICLE

Impact of a community pharmacy led antibiotic amnesty in the Midlands region of England

Get access >

Marco G Ercolani, Rakhi Aggarwal ✉, Angela Barker, Donna Cooper, Conor Jamieson

International Journal of Pharmacy Practice, riad040,
<https://doi.org/10.1093/ijpp/riad040>

Published: 24 August 2023 Article history ▼

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An antibiotic amnesty can be a One Health tool to tackle antimicrobial resistance

[Fergus Allerton](#) ✉, [Conor Jamieson](#), [Rakhi Aggarwal](#), [Angela Barker](#), [Megan Work](#), [Donna Cooper](#) & [Ian Ramsey](#)

Nature Medicine **29**, 1046–1047 (2023) | [Cite this article](#)

586 Accesses | 7 Altmetric | [Metrics](#)



BECOME AN ANTIBIOTIC GUARDIAN

Keep **Antibiotics** Working

Shortlist: Antibiotic Guardian 2022/23 Shared Learning Event and Awards

[Click here to register for the Antibiotic Guardian Shared Learning Event and Awards](#)

Public engagement

County Durham MO team (NENC ICB)

Ducit Blue Foundation

NHS Birmingham and Solihull ICB

Roll Back Antimicrobial resistance Initiative (RBA Initiative)

University of Liverpool - Antimicrobial Resistance Citizens' Jury project



Supported by



Veterinary Medicines Directorate



THE WEBINAR VET





Antibiotic amnesty plans for 2023

1st November to 30th November

- Letter to community pharmacy contractors via PharmOutcomes 26th September
- Expressions of interest module live on PharmOutcomes
 - Sign up by **15th October** to receive high quality printed resources via post*
 - All campaign resources available on PharmOutcomes platform
- All resources available on Royal Pharmaceutical Society website (multiple languages available)
- Option on PharmOutcomes to express interest in participating in research
- Request to record basic data and return at the end of the amnesty period

ANTIBIOTIC AMNESTY

NHS

ANTIBIOTICS should never be saved for later or shared with others



HAND YOUR OLD OR UNUSED ANTIBIOTICS IN HERE

ANTIBIOTIC GUARDIAN

ਐਂਟੀਬਾਇਓਟਿਕ ਐਮਨੈਸਟੀ

NHS

ਐਂਟੀਬਾਇਓਟਿਕ ਦਵਾਈਆਂ ਨੂੰ ਕਦੇ ਵੀ ਬਾਅਦ ਵਿੱਚ ਵਰਤੇ ਜਾਣ ਲਈ ਰੱਖਿਆ ਨਹੀਂ ਜਾਣਾ ਚਾਹੀਦਾ ਜਾਂ ਦੂਜਿਆਂ ਨਾਲ ਸਾਂਝਾ ਨਹੀਂ ਕੀਤਾ ਜਾਣਾ ਚਾਹੀਦਾ



ਆਪਣੀਆਂ ਪੁਰਾਣੀਆਂ ਜਾਂ ਨਾ ਵਰਤੀਆਂ ਗਈਆਂ ਐਂਟੀਬਾਇਓਟਿਕ ਦਵਾਈਆਂ ਕਿਸੇ ਵੀ ਸਥਾਨਕ ਫਾਰਮੇਸੀ ਵਿੱਚ ਦੇ ਦਿਓ

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ANTIBIOTIC GUARDIAN

HAND YOUR OLD OR UNUSED ANTIBIOTICS IN AT ANY LOCAL PHARMACY

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AMNESTIA ANTYBIOTYKOWA

NHS

Nie wolno zachowywać antybiotyków na później ani dzielić się nimi z innymi



ANTIBIOTIC GUARDIAN

ODDAJ SWOJE STARE LUB NIEUŻYWANE ANTYBIOTYKI W DOWOLNEJ LOKALNEJ APTECE.

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Antibiotic amnesty plans for 2023

Data collection

- Number of amnesty conversations held with patients & public
- Number of full packs of antibiotics returned
- Number of part packs of antibiotics returned

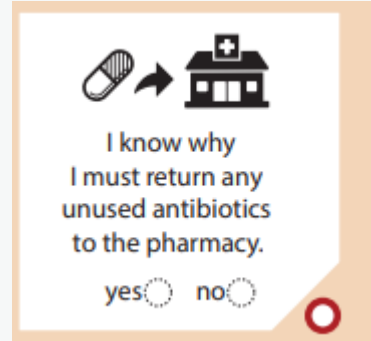
- Return data via PharmOutcomes module by 15th December

Pharmacy Quality Scheme 2023-24

6.1.3.f Safe disposal

By the end of 31 March 2024, all patient-facing pharmacy staff working in the pharmacy on the day of the declaration must have been trained on the reasons why unwanted and expired antibiotics should be returned to the pharmacy for safe disposal and the adverse effects on the environment and AMR when antibiotics are disposed of in domestic waste. The Royal Pharmaceutical Society has provided some short videos and material available [here](#).

The pharmacy must be able to evidence they have spoken (a verbal conversation rather than written communication) with all patients, their carer or representative, for whom they have dispensed antibiotics between 1 June 2023 and the day of the declaration, about the benefits of them returning all unwanted antibiotics to a community pharmacy for safe and environmentally friendly disposal.





Antibiotic amnesty research plans

2022

- 4th year MPharm students from De Montfort University and Wolverhampton University visited participating pharmacies December 2022 and Feb/March 2023
- Collected granular data on the antibiotics being returned (176 in total)
 - Drug, quantity, dispensing date, expiry date, dispensing location etc.
 - 28% returned more than 1 year since being dispensed
- More pharmacies expressed interest in research than there were students available to conduct it (UoB, Aston – no volunteers, Wolverhampton, DMU)
- 2023 plans to repeat the work – DMU looking at a more interventional project to boost the amnesty campaign
- Community pharmacy support for MPharm students very much appreciated!



Summary

- 2021 & 2022 campaigns were successful and gained attention nationally
- Midlands region showcasing the public health role of community pharmacy
- Unique link with veterinary practice – helps to amplify messages
- Many pharmacies expressed interest in research – supporting students and may help future recruitment? Can this translate to other research areas?
- Campaign relies on goodwill & support from community pharmacy teams
- Support of MaPCOG & funding from LPNs is welcomed and appreciated

Thank You



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