

ANTIBIOTIC RESISTANCE IN NUMBERS

25K The number of people who die each year across Europe from infections resistant to antibiotics

12%

decrease in antibiotic prescriptions dispensed in General Practice in Wales between 2013 and 2017

The period of time since a new **class of antibiotics for human treatment was last introduced**, despite the fact that growing numbers of bacterial and viral infections are resistant to antibiotics **33 YEARS**

10% of the sore throats and 20% of acute sinusitis benefit from antibiotic treatment but the prescription rates are much higher than this

10%



1 IN 3

People in Wales take at least **one course of antibiotics** each year

10 million Estimated number of yearly deaths globally by 2050 if we do not act now

The **estimated lost productivity** to the global economy (\$100 trillion)

£66 trillion



Public Health Wales established the Welsh Antimicrobial Resistance Programme in 2008, in response to the growing global threat of antimicrobial resistance. The core aims of the programme are to minimise illness and death due to antimicrobial resistant infection, and to maintain the future effectiveness of antibiotics for the treatment/ prevention of infections in humans and animals.

Public Health Wales are co-ordinating the EAAD activities in Wales in collaboration with Public Health England (PHE), the Department for Environment, Food and Rural Affairs (DEFRA), the Department of Health, the other devolved administrations and other professional organisations.

PHE established the Antibiotic Guardian campaign to help protect antibiotics and improve knowledge about antibiotic resistance.

You are invited to become an Antibiotic Guardian

As an Antibiotic Guardian, you can encourage others to join you in protecting antibiotics against the growing threat of antibiotic resistance at antibioticguardian.com

Please share on social media using **#AntibioticGuardian**

Information and resources on the Antibiotic Guardian work in Wales can be found at:

www.publichealthwales.org/antibiotic-guardian



Public Health England



BECOME AN ANTIBIOTIC GUARDIAN

Protect yourself, your family, friends, colleagues and patients against the spread of antibiotic resistance.

Join us at antibioticguardian.com

Keep  **Antibiotics** Working

WHAT IS ANTIBIOTIC RESISTANCE?

The problem

Antibiotics, antifungals, antimalarials, antiretrovirals (collectively termed antimicrobials) treat infections by killing bacteria, fungi, parasites and viruses (respectively), but now we have an increasing number of these microbes that are able to resist the effects of these antimicrobials. This is called Antimicrobial Resistance. Infections caused by such microbes are termed drug resistant infections.

Antimicrobials, especially antibiotics, are becoming less effective. This can lead to more deaths and more complications for people receiving treatment. We have to tackle this problem before it gets worse.

How this happened

There are many reasons why antibiotics lose their effectiveness, but misuse is one of the key contributors:

Misuse of antibiotics can include any of the following¹:

- When antibiotics are prescribed/taken unnecessarily
- When antibiotic administration is delayed in critically ill patients
- When broad-spectrum antibiotics are used unnecessarily or when narrow-spectrum antibiotics are used incorrectly
- When the dose of antibiotics is lower or higher than appropriate for the specific patient
- When the duration of antibiotic treatment is too short or too long
- When antibiotic treatment is not guided by microbiological culture data results

What can we do?

Antibiotic resistance is one of the biggest threats facing us today but you can help. Please visit www.antibioticguardian.com and find out about the simple steps you can take to save our antibiotics.

¹Gyssens IC, van den Broek RJ, Kullberg BJ, Hekster Y, van der Meer JW. Optimizing antimicrobial therapy. A method for antimicrobial drug use evaluation. J Antimicrob Chemother. 1992 Nov;30(5):724-7.

A WORLD WITHOUT ANTIBIOTICS

Pre-antibiotic age

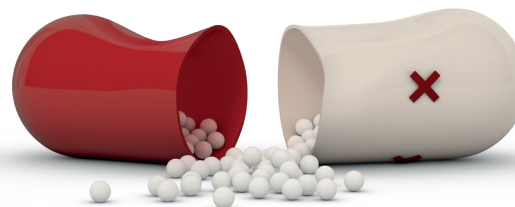
In a world before antibiotics, which was as recently as the 1930s, people often died from infections like pneumonia or meningitis. Simple medical procedures and operations were risky due to the chance of infection. Antibiotics changed that.

Antibiotic age

Since the 1940s, our antibiotics have allowed us to fight infections and save millions of lives. However, they are becoming ineffective against many infections because we aren't using them properly.

Post-antibiotic age

If bacteria become 'resistant' to our antibiotics, many routine treatments will again become increasingly dangerous. Setting broken bones, basic operations, even chemotherapy all rely on access to antibiotics that work. Antibiotic resistance is one of the biggest threats facing us today but we have a chance to fight back. Find out how at www.antibioticguardian.com



ANTIBIOTIC RESISTANCE WHAT CAN I DO?

Be an Antibiotic Guardian

Antibiotics are some of our most precious medicines used to treat both humans and animals.

The Antibiotic Guardian campaign was launched in 2014 to kick-start collective action from both health and social care professionals, students, educators in the human and animal health sector as well as members of the public to work together to slow the spread of antibiotic resistance.

By pledging to become an Antibiotic Guardian, you choose to perform a simple action which protects antibiotics against the threat of antibiotic resistance.

It is important that the public are made aware that taking antibiotics when they don't need them puts them and their family at risk of developing infections which cannot be easily treated with antibiotics.

Advise patients and the public to take these simple actions to keep antibiotics working:

- Ask their pharmacist to recommend medicines to help treat cold or flu symptoms or pain
- Take antibiotics exactly as prescribed, never save them for later, never share them with others
- To spread the word, tell their friends and family about antibiotic resistance

Sign up and learn more

Join the movement at www.antibioticguardian.com and choose a pledge that feels right for you to become an Antibiotic Guardian. Remember that your actions protect antibiotics.