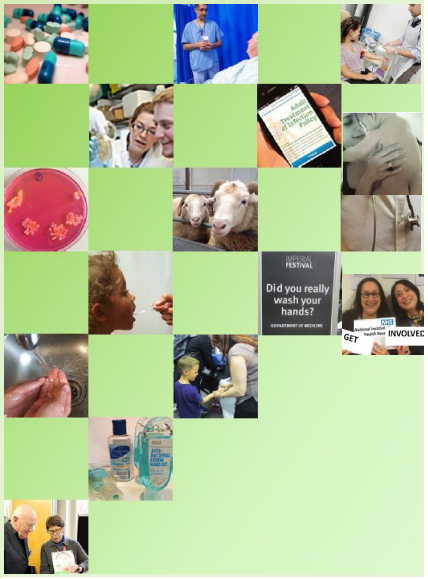
NHS
National Institute for Health Research

Health Protection Research Unit in Healthcare Associated Infections and Antibiotic Resistance



NIHR at 10

HPRU HCAI and AMR
8th floor Commonwealth building, Hammersmith Campus,
Du Cane Rd, London, W12 0NN

What is AMR?

Infections are caused by microorganisms (bugs or germs). Medicines used to treat infections are called antimicrobials or antibiotics. When bugs can no longer be effectively treated by antibiotics then we say they are resistant.

Antimicrobial Resistance (AMR for short) is a natural process caused by bugs which are exposed to antibiotics in insufficient quantities to kill them. This allows them to learn how to adapt (evolve) in a way which lets them survive in the presence of antimicrobials. These bugs are able to share this ability with other bugs even if they are not the same type allowing resistance to spread rapidly.

The **overuse and improper** use of antimicrobials in humans, animals (pets and food-producing animals) and plants has made AMR a global threat. In terms of human health, over or improper use means unnecessary antibiotics being taken for coughs or colds against which they are not effective or people not completing a course of drugs, or missing doses.

Why does AMR matter to me?

Antibiotics have helped millions of people across the world since they were discovered in the 1920s. We have been able to reduce the number of people affected by deadly diseases such as tuberculosis, whooping cough and scarlet fever.

Antibiotics have also been essential in preventing infections after routine hospital operations such as hip replacements or caesarean sections, or when the natural defences of the body are weakened after cancer treatments. All these medical advances are at risk if infections become resistant to current antibiotics.

There is a very real chance that our children and grandchildren may live in a world where antibiotics no longer work. Many bugs causing disease have now become resistant to multiple types of antibiotics including the drugs of last resort.

Drug-resistant infections are not just an issue affecting the UK. A recent report estimated that by 2050 over 10million people a year worldwide more than currently die of cancer.

What is being done?

There has been some action around the world to monitor and prevent the spread of resistant infections. Governments and others are funding work to develop new antibiotics and diagnostic tests to allow more accurate prescribing. They are also funding research centres dedicated to learn more about resistance including the Health Protection Research Unit in Healthcare Associated Infection and Antimicrobial Resistance at Imperial College.

- We are studying why some bugs are more deadly or spread more quickly than others, so we can produce better treatments.
- We are developing better tools to track the spread of resistance and predict which patients are most at risk of infection.
- We are looking at different ways to help patients and prescribers use antibiotics properly including the benefits of m-health and technology.
- We are evaluating both the burden of resistance and the impact of the solutions that we develop.

What can I do?

Everybody can help stop the advance of drug-resistant infections.

The 5 main things you can do are:

- **Wash your hands adequately to avoid passing bugs to others**
- **Do not ask your GP to give you antibiotics, let them decide**
- **Take antibiotics as advised by your doctor**
- **Get better informed by going to www.imperial.ac.uk/medicine/hpru-amr/patient-and-public-information/**
- **Tell others about drug-resistant infections**

You can also become involved in our research as a patient/public representative. You don't need any experience or medical or specialist knowledge and your participation can help us make a HUGE difference to our work. We will work with you to identify how you would like to contribute and can provide expenses to help cover any costs incurred in helping us.

How can I get more involved?

- By telling us how best to contact and attract other people like you to become involved
- By telling us if you can easily understand our documents
- By collecting data for research with us
- By working with us to analyse the results
- By volunteering at our events
- By talking to the people you know about our research
- By commenting on research proposals

Interested? For an initial discussion please contact head.ops@imperial.ac.uk or phone 0208 383 1280 or send your details to the address on this leaflet. A full induction will be provided to welcome you to our friendly team and introduce you to our existing public representatives

NAME: _____

ADDRESS: _____

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EMAIL: _____