The use of antibiotics (and other antimicrobial agents) can lead to disease-causing bacteria developing resistance, making it more difficult to treat patients' infections. These resistant organisms can spread from person to person, with the potential to cause serious and difficult-to-treat infections.

Reducing the use of antibiotics by preventing infection, getting the right diagnosis early, and avoiding antibiotics when they are not needed, is important to stop the development and spread of antibiotic-resistant bacteria.



Antibiotics used in agriculture are also a potential source of antibiotic resistant bacteria that can harm humans. Health professionals in Northern Ireland are beginning to work with those within agriculture and industry to influence the amount of antibiotics used in animals.

In 2016, Lord Jim O'Neill published a major review of the harms associated with antimicrobial resistance, in which he projected greatly increasing human and financial costs. In response, the UK government committed to two major aims relating to human health:

- halving healthcare-associated gram negative bloodstream infections by 2020/21
- halving inappropriate antimicrobial prescribing by 2020/21

Northern Ireland's current five year Strategy for Tackling Antimicrobial Resistance ends in 2017 and a new strategy is being developed. Northern Ireland's Chief Medical Officer wrote to all HSC professionals in Northern Ireland in June 2016, committing to meet these targets (HSS(MD) 6/2017).

The PHA-led regional Healthcare-associated Infection and Antimicrobial Stewardship Improvement Board is developing a series of new initiatives to measure and reduce unnecessary antibiotic use, antimicrobial resistance and gram-negative bloodstream infections, which will be rolled out over the coming months, including a series of engagement and education events in autumn 2017 for HSC professionals.

Examples of recent steps taken by HSC to reduce antimicrobial resistance include:

- Each Trust has appointed a new senior pharmacist to work with care homes on prescribing.
- More than 100 practice-based pharmacists were recently recruited and the vast majority of general practices will have access to a practice-based pharmacist during 2017.
- More than half of general practices signed up to a new Locally Enhanced Service that was created to support a named Antibiotic Champion in undertaking audit and improvement.
- A pilot of point-of-care CRP testing is underway in five general practices.
- The PHA is coordinating a point prevalence survey of hospital-acquired infections and antimicrobial use in all Northern Ireland acute hospitals in June 2017 and will contribute data to 2016/17 ECDC for inclusion in a pan-European report.
- The PHA organised a regional Symposium on 13 March 2017, with a focus on antimicrobial resistance. The event was used as an opportunity to raise the profile of antimicrobial resistance among health professionals and for networking among HSC and wider stakeholders with an interest in antimicrobial resistance, antimicrobial stewardship and infection control.

The PHA will be working with stakeholders across the HSC to help create the conditions for prescribers to reduce their antibiotic use, and therefore reduce the amount of antibiotic-associated harm caused to patients. If you are committed to reducing the harm caused by antimicrobial-resistant infections, sign up to be an Antibiotic Guardian and pledge to help prevent antibiotics becoming obsolete: http://antibioticguardian.com/.

Many new resources to help prescribers and inform the public have been developed and can be accessed freely online:

The Northern Ireland Regional Infection Prevention and Control Manual: https://www.niinfectioncontrolmanual.net/

The Northern Ireland Formulary: http://niformulary.hscni.net/

Northern Ireland self-care resources:

http://niformulary.hscni.net/PatientZone/YourMeds/Pages/default.aspx

e-Bug resources for children and young people: http://www.e-bug.eu/

TARGET (Treat Antibiotics Responsibly, Guidance, Education, Tools)

resources for GPs: http://www.rcgp.org.uk/TARGETantibiotics

Start Smart Then Focus guidance for treating sepsis and reviewing

antibiotic treatment: https://www.gov.uk/government/publications/antimicrobial-

stewardship-start-smart-then-focus

British Society for Antimicrobial Chemotherapy resources:

http://www.bsac.org.uk/

The Healthcare-associated Infection and Antimicrobial Stewardship Improvement Board is seeking service user and carer representatives to help shape how we approach these challenges. More information is available in this **service user role description** and **application form**. Forms should be returned by 31 July 2017.

Information for people who work with livestock about livestock-associated MRSA is available from Veterinary Medicines Directorate, Department of Health, Food Standards Agency, Public Health England, and Animal and Plant Health Agency here: https://www.gov.uk/government/publications/la-mrsa-information-for-people-who-work-with-livestock

Publications

Summary CDI and MRSA incidence tables, 1st April 2006 to present

Clean your hands materials

Positive Blood Cultures: Laboratory Reports, NI

Escherichia coli (E.coli) Bacteraemia Surveillance

Pseudomonas

Pseudomonas Factsheet

Preventing infections caused by Pseudomonas - Parent/Carer Information Leaflet

Screening patients for Pseudomonas - Parent/Carer Information Leaflet

<u>Preventing infection caused by Pseudomonas work on water supplies - Parent/Carer</u> Information Leaflet

2019 Northern Ireland HCAI & AMR Symposium

The PHA Health Protection division hosted the one day symposium to share learning and facilitate discussion on the topics healthcare-associated infections (HCAI), antimicrobial resistance (AMR) and antimicrobial stewardship.

The expert-led sessions in this symposium discussed and debated the key challenges for HCAI and antimicrobial resistance, providing evidence-based practical solutions to address these challenges.

The event featured presentations from external speakers, updates from the surveillance teams and the sharing of best practice and learning from work undertaken to date. Presentations from the day are attached below. Copyright of the presentations is owned by each author.

BELFAST AMS DILIP 2019 FINAL sharing 20-03-19.pptx

CPE in IE HPA HCAI AMR Symposium 120319 KarenBurns.pptx

Gram negative bacteraemia reduction Scotland A-lan Banks.pptx

HALT Final HCAI Symposium.pptx

HCAI and AMR symposium - DF presentation final.pptx

HCAI Symnposium Presentation HCAI Rachel.pptx

HPSymposium_12MARCH2019_M McConaghy.pptx

IPC and AMR 12 March 2019 Damani PHA sent.pptx

NI - AMR Challenges Opportunities English Perspectivev2.pptx

Regional hcai improvement board 110319 C Gormley.pptx

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