

NICE Guidance 2017 – What does this mean for schools and teachers?

What is the NICE Guidance?

The National Institute for Health and Care Excellence (NICE) Guidance on antimicrobial stewardship and changing behaviour around antibiotics was launched on the 25th January 2017 recommending that all schools use Public Health England’s e-Bug resources to teach children and young people about hygiene, infections and antibiotics.

What is antimicrobial stewardship?

Antimicrobial stewardship is a program that promotes the appropriate use of antimicrobials (including antibiotics).

What is antimicrobial resistance (AMR)?

Antimicrobial resistance is the ability of a microbe to adapt so that the medication used to treat the infection becomes ineffective. When the microbe becomes resistant to most antimicrobials they are often referred to as “superbugs”.

What is the difference between an antibiotic and antimicrobial?

Antibiotics are only active against bacteria. Antimicrobials are active against other microbes such as viruses or fungi.

What has caused antimicrobial resistance?

Ever since antimicrobials (more commonly called antibiotics) were discovered, microbes have been finding ways of adapting so they cannot be killed by antimicrobials. Microbes adapt by mutating in some way; most commonly by changing or mutating their protective wall. As a result of this, most bacteria causing common infections cannot be killed by the first antibiotic discovered, penicillin, so these bacteria are said to be penicillin resistant.

The amount of antibiotic resistance increases with the more antibiotics we use. For every course of antibiotics you take some of your bacteria will become resistant within days and then they start spreading this resistance to other bacteria they are in contact with. We can carry antibiotic resistant microbes without knowing and spread them to others quite easily, for example by shaking hands or sneezing.

Why should we be worried about it?

Scientists through the 1960’s, 70’s and 80’s discovered new antibiotics and these antibiotics kill or weaken the bacteria and other microbes in different ways. This was the golden era of antibiotics. However, microbes are very clever and they have continued to mutate and are now resistant and cannot be killed by many more antibiotics.

Over the years scientists have developed more antibiotics, but this antibiotic pipeline has dried up. Therefore, common infections are becoming resistant to antibiotics; particularly in really ill patients in hospital settings. An example of this resistance is water infections (urinary tract infections or UTIs), which are very common in women, and about a quarter of the infections are now resistant to our first line antibiotic, trimethoprim.

How can we combat AMR?

To tackle AMR we need to:

1. Look after our antibiotics by using them when we only need them
2. Have better hygiene and vaccination rates to stop infections spreading so we need to use fewer antimicrobials
3. Develop new antimicrobials

What does the new NICE guidance say?

1. Firstly everyone is responsible for helping in this battle against antimicrobial resistance every day – from children to the elderly, healthy or ill, all health and animal related professionals, all in education, and all clinical commissioning groups and hospitals and politicians
2. The overarching principles are:
 - a. Wash your hands to stop infections and antibiotic resistance spreading.
 - b. Always cover your sneezes and coughs to stop infections and antibiotic resistance spreading.
 - c. Only use antibiotics when you really need them.
 - d. Always get the vaccinations you are due.

How can our school follow the NICE Guidance?

1. All children should be taught in an age appropriate way about hand, respiratory, and food hygiene and appropriate antimicrobial use, using resources such as the Public Health England's [e-Bug](#) resources.
2. All staff involved in teaching science and PSHE are recommended to complete [e-Bug training](#) to have the knowledge, confidence and skills to teach children and young people about hygiene and antibiotics.
3. All schools and colleges need appropriate hand washing facilities, so everyone can wash their hands after using the toilet, before eating, after handling raw meat or dirty vegetables, and after handling animals.
4. Encourage your school members to become part of the nationwide [Antibiotic Guardian](#) campaign to increase awareness of antimicrobial use.
5. Schools should use the NICE endorsed website called [Germ Defence](#) to teach about protecting yourself against cold and flu.