

# Myths and Facts About Antimicrobial Resistance (AMR)

Whilst public awareness of AMR is increasing, there are still several common misconceptions around the nature of AMR and the use of antibiotics, including:

## 1. Antibiotics are effective against all infections

**False!** Antibiotics only work on pathogens that are sensitive to them, and pathogens are increasingly becoming resistant to common therapies. Additionally, some antibiotics are antibacterials, which only work against bacteria; they will not relieve symptoms of viral infections even though they are sometimes prescribed inappropriately to treat these infections.<sup>1</sup>

## 2. AMR occurs when the body becomes resistant to antibiotics

**This is a common misconception;** it is actually the bacteria themselves that can develop resistance to standard treatment, not the human body.<sup>2</sup> These bacteria can then spread to other people and cause infections.

## 3. It is good practice to stop taking antibiotics as soon as I feel better, to minimise the risk of resistance

**To the contrary,** it is important to follow the advice of your healthcare professional and to continue to take the course of antibiotics for as long as directed by them.<sup>3,4</sup>

## 4. Antibiotic resistance is only a problem for people who take antibiotics frequently

**Not true.** Although closely following instructions for antibiotic use does decrease your risk, anyone can become infected by multi-drug resistant bacteria. This is because the bacteria or pathogens change and find ways to resist the effects of antibiotics. This process of adaptation leads to antimicrobial resistance.<sup>5</sup>

## 5. There isn't anything I can do to stop the spread of AMR

**Wrong!** Everyone has a role to play in combatting AMR, from industry to policymakers to the general public. You can personally help advance efforts against resistance by only taking antibiotics when needed, keeping up to date with vaccinations, and always taking antibiotics exactly as prescribed by your healthcare professional.<sup>4,6</sup>

## 6. I live in a country where AMR is not a great concern, and so I do not have to worry

**This is not the case;** globalization has increased the spread of AMR, so it is an issue no matter where you live.<sup>7</sup>

## 7. Vaccinations do not help prevent the spread of AMR

**False!** You can take an active role in the prevention of AMR by keeping vaccinations up to date for you and your family. Experts agree that vaccines play a vital role in the arsenal to address AMR.<sup>6</sup> Vaccines are administered to help prevent infections from happening in the first place, which naturally leads to reducing the use of antibiotics.

## 8. There is no issue with taking antibiotics that have been prescribed for someone else

**This is not true.** Patients are prescribed antibiotics for particular infections, and therefore an antibiotic prescribed for one person may not work for someone else.<sup>3</sup> You should visit your primary care doctor if you feel unwell so that, if it is appropriate, they can prescribe medication.

**References:** 1. National Institute for Health and Care Excellence (NICE). Antibacterials, principles of therapy. Available at: <https://bnf.nice.org.uk/treatment-summary/antibacterials-principles-of-therapy.html>. Last accessed August 2019. 2. Centers for Disease Control and Prevention. About Antimicrobial Resistance. Available at: <https://www.cdc.gov/drugresistance/about.html>. Last accessed August 2019. 3. National Health Service (NHS). Overview: Antibiotics. Available at: <https://www.nhs.uk/conditions/antibiotics/>. Last accessed August 2019. 4. World Health Organization (WHO). Antibiotic resistance: key facts, 5 February 2018. Available at: <https://www.who.int/news-room/fact-sheets/detail/antibiotic-resistance>. Last accessed August 2019. 5. WHO Europe, Antimicrobial resistance - About AMR page. Available at: <http://www.euro.who.int/en/health-topics/disease-prevention/antimicrobial-resistance/about-amr>. Last accessed August 2019. 6. Jansen KU, Anderson AS. The role of vaccines in fighting antimicrobial resistance (AMR). Hum Vaccin Immunother. 2018;14:2142-2149. 7. Antimicrobial Resistance: Policy Insights. OECD. Available at: <https://www.oecd.org/health/health-systems/AMR-Policy-Insights-November2016.pdf>. Last accessed August 2019.