

# WHAT ARE ANTIMICROBIALS?



Antimicrobials is the name given to a group of medicines which work by killing or preventing the growth of disease-causing microorganisms such as bacteria, viruses, fungi and protozoa.



KNOW MORE ABOUT ANTIMICROBIAL RESISTANCE (AMR)

# HOW DOES ANTIMICROBIAL RESISTANCE HAPPEN? (PART 1)



Antimicrobial resistance is the resistance of a microorganism to an antimicrobial medicine to which it was previously sensitive.

 **KNOW MORE ABOUT ANTIMICROBIAL RESISTANCE (AMR)**

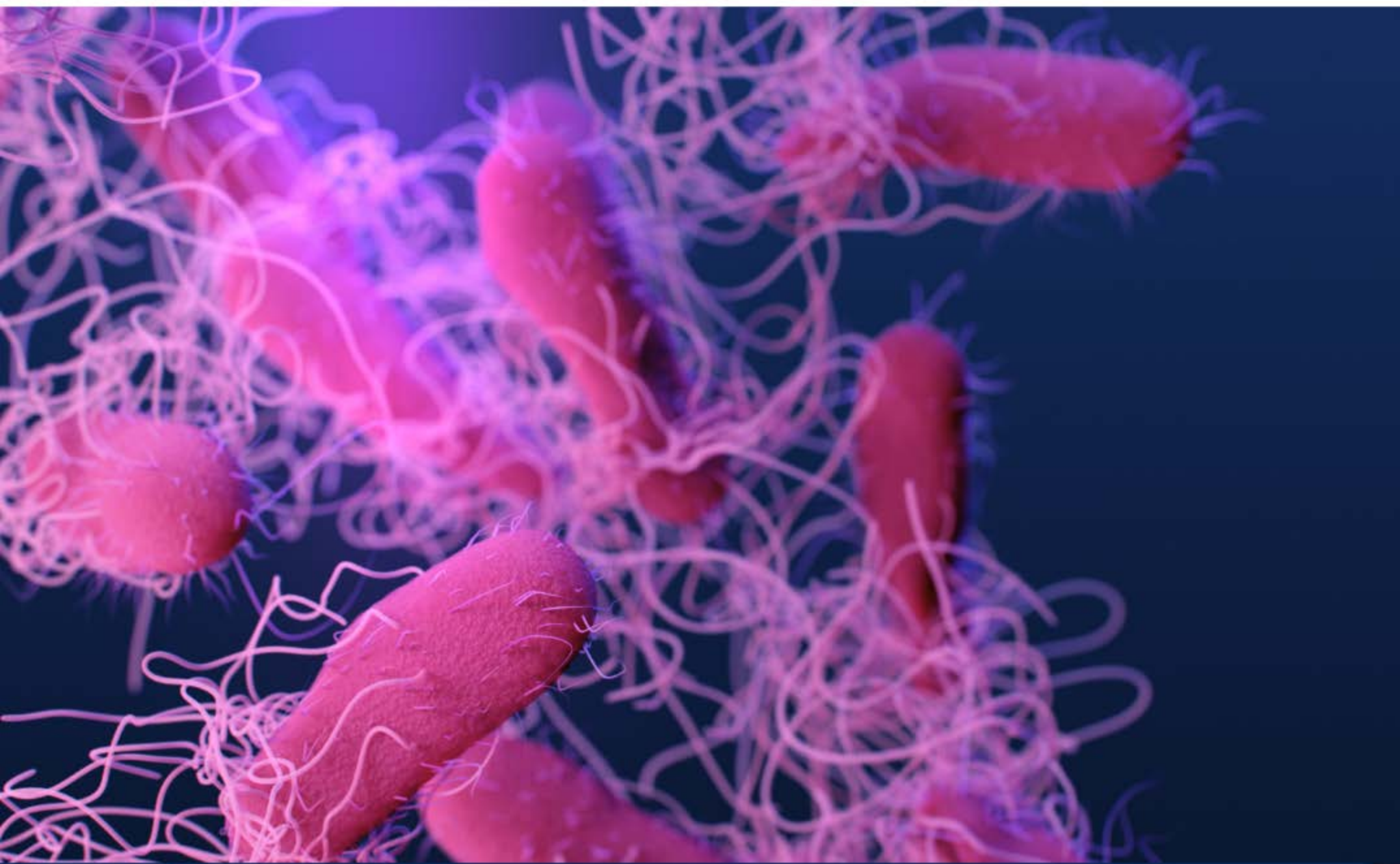
# HOW DOES ANTIMICROBIAL RESISTANCE HAPPEN? (PART 2)



It develops when a microorganism mutates or acquires a resistance gene.

 **KNOW MORE ABOUT ANTIMICROBIAL RESISTANCE (AMR)**

# HOW DOES ANTIMICROBIAL RESISTANCE HAPPEN? (PART 3)



Resistant organisms such as bacteria, viruses, fungi and parasites are then able to withstand attack by antimicrobial medicines, such as antibiotics, antivirals, and antimalarials.

 **KNOW MORE ABOUT ANTIMICROBIAL RESISTANCE (AMR)**

# WHAT HAPPENED AS A RESULT OF ANTIMICROBIALS?



This causes standard treatments to become ineffective, and infections that can persist may spread to others.

 **KNOW MORE ABOUT ANTIMICROBIAL RESISTANCE (AMR)**

# WHAT CAUSES ANTIMICROBIAL RESISTANCE?



Antimicrobial resistance is a consequence of the use and, in particular, the misuse of antimicrobial medicines.

# WHY IS ANTIMICROBIAL RESISTANCE A GROWING CONCERN?



When the microorganisms become resistant to most antimicrobials, they are often referred to as “superbugs”.

This is a major concern because a resistant infection may kill, can spread to others, and imposes huge costs on individuals and society.

# WHAT FACTORS INCREASE ANTIMICROBIAL RESISTANCE?



Inappropriate use of medicines provides favourable conditions for resistant microorganisms to emerge and spread.

For example, when patients do not take the full course of a prescribed antimicrobial, resistant microorganisms can emerge and spread.



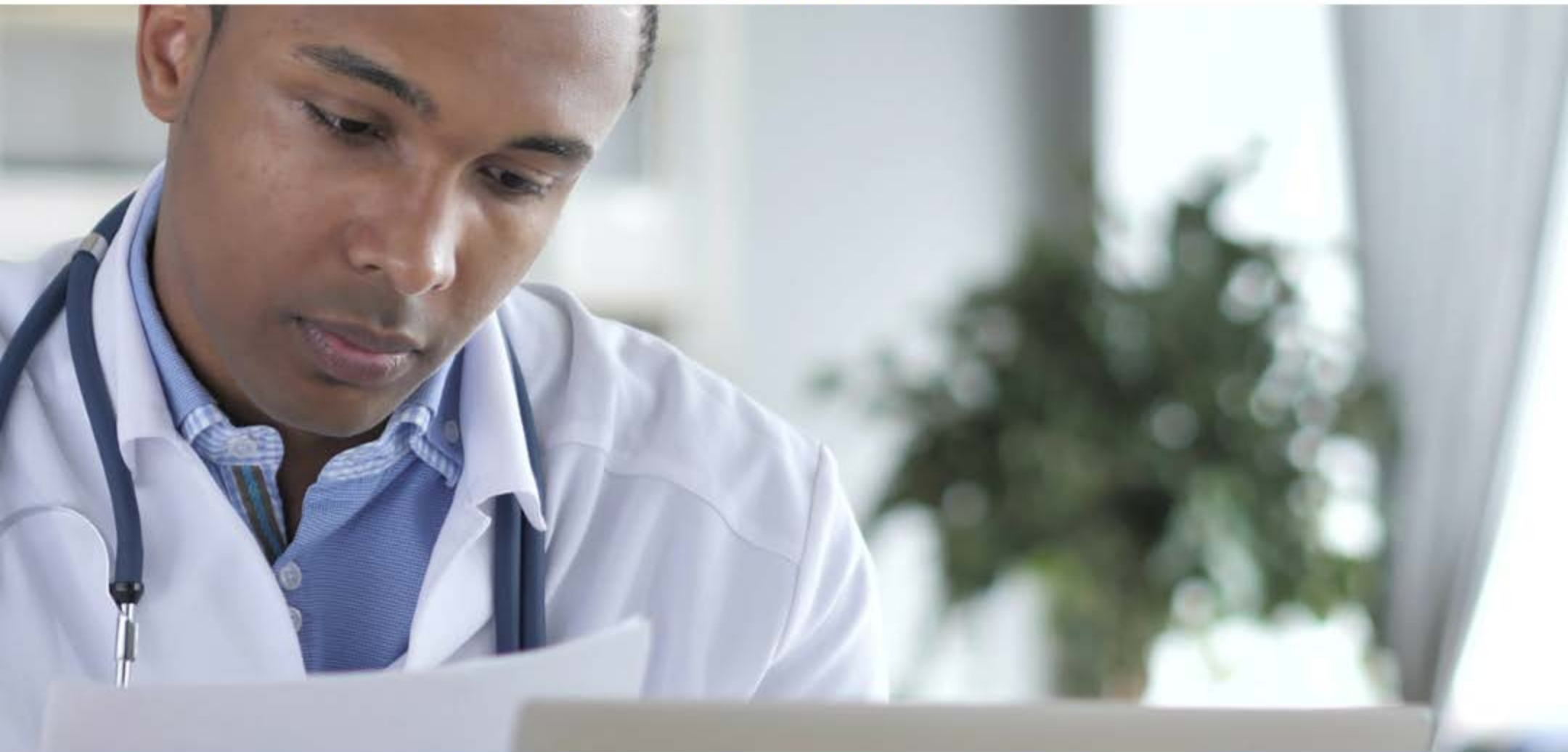


# INAPPROPRIATE PRESCRIBING OF MEDICINES



Sometimes healthcare providers will prescribe antimicrobials inappropriately, wishing to placate an insistent patient who has a viral infection or an as-yet undiagnosed condition.

# INAPPROPRIATE PRESCRIBING OF MEDICINES



Sometimes healthcare providers use incomplete information to diagnose an infection and prescribe an antimicrobial just in case or a broad-spectrum antimicrobial when a specific antibiotic might be better.

These situations contribute to antimicrobial resistance.

# HOSPITALISATION



Critically ill patients are more susceptible to infections and often require the aid of antimicrobials. However, heavier use of antimicrobials in these patients, as well as frequent movement of healthcare professionals from patient to patient, creates a fertile environment for the spread of AMR-resistant germs.

# AGRICULTURAL USE



Scientists also believe that the practice of adding antibiotics to agricultural feed can promote drug resistance. However, there is still much debate about whether drug-resistant microbes in animals pose a significant public health burden.

# LONGER ILLNESS



Infections caused by resistant microorganisms often fail to respond to the standard treatment, resulting in prolonged illness and a greater risk of death.

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# IMPACT ON THE EFFECTIVENESS OF TREATMENT



Antimicrobial resistance reduces the effectiveness of treatment because patients remain infectious for longer - potentially spreading resistant microorganisms to others.



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# MORE EXPENSIVE TREATMENT



When infections become resistant to first-line medicines, more expensive therapies must be used.

The longer duration of illness and treatment, often in hospitals, increases healthcare costs and the financial burden to families and societies.

# WHAT ACTIONS CAN HEALTHCARE PROVIDERS TAKE TO COMBAT ANTIMICROBIAL RESISTANCE?



- When possible, delay the use of antimicrobials until a diagnosis is made.
- Urge clients to complete their course of antimicrobials.
- Avoid cross-contamination of clients, especially for critical patients in hospital settings, through infection control measures such as good hand hygiene.

