

## Press Release

### Public Advisory on Antimicrobial Resistance (AMR)

**Antimicrobial resistance or AMR** is a global health care crisis. WHO has declared that – ‘AMR is one of the top 10 global public health threats facing humanity’. It is estimated by WHO that bacterial Antimicrobial Resistance was directly responsible for 12.7 lakh global deaths in 2019. As per the reports, India has one of the highest rates of antimicrobial resistance (AMR) worldwide.

‘Antimicrobials’ includes – antibiotics, antivirals, antifungals and antiparasitics. **Drug-resistance in Bacteria i.e. “Antibiotic Resistance” is increasing globally.**

Antibiotics save lives when used correctly.

When used incorrectly, bacteria start to acquire **resistance** to the ‘antibiotics’ designed to kill them i.e. bacteria develop the ability to withstand the effects of antibiotics. As a result of drug resistance, antibiotics become **ineffective** and infections become difficult or impossible to treat.

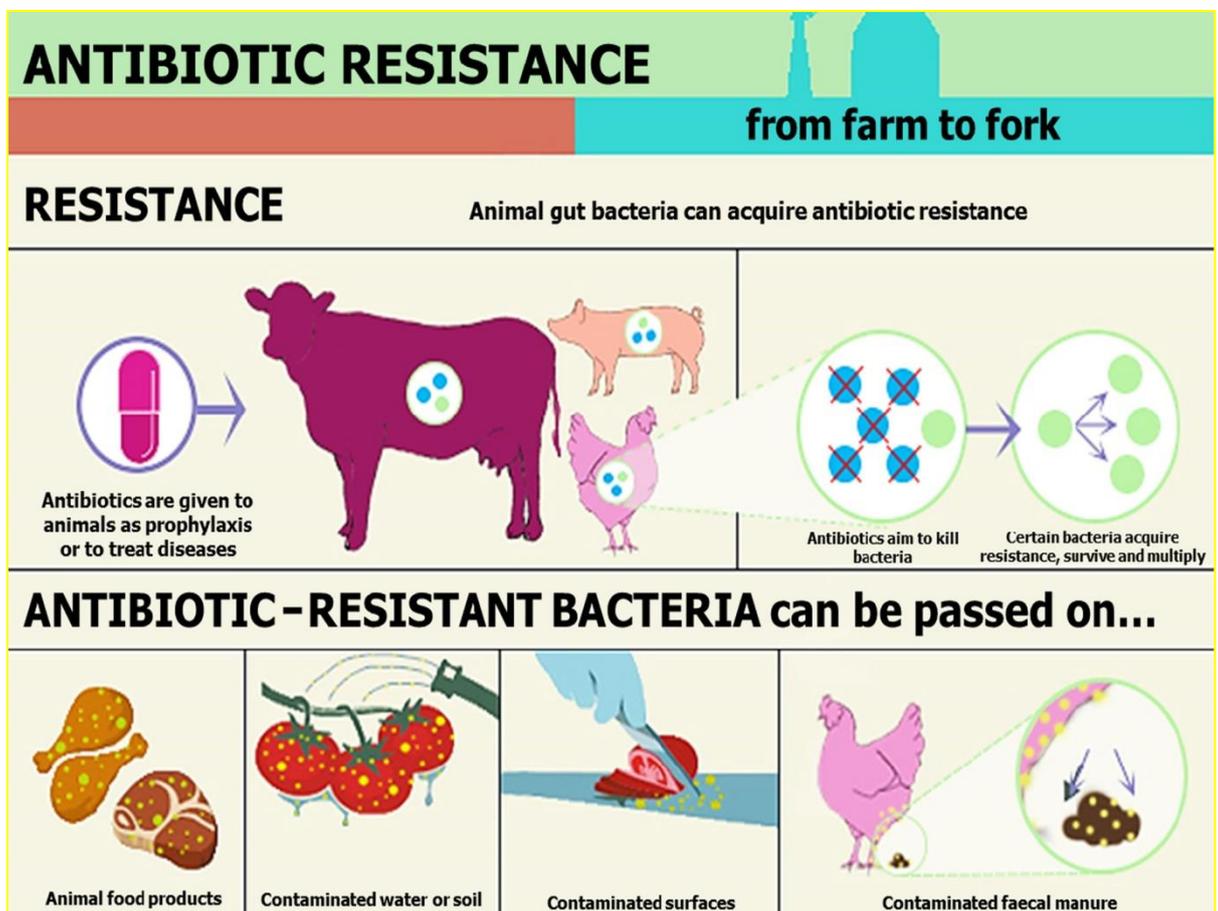
When bacteria become resistant, they develop into ‘superbugs’ which that can spread from person to person. This means common infections cannot be cured, because the life-saving antibiotics stop working against bacteria and posing a significant threat to public health.

The development of antimicrobial resistance is a natural phenomenon. However, certain human actions accelerate its emergence and spread.

Preventing antimicrobial resistance (AMR) is a complex task and requires a multifaceted approach involving doctors and other health care professionals, regulatory authorities, industries and general public.

As per WHO, **over-prescribing of antibiotics** is one of causes of antimicrobial resistance. As per WHO guidelines to prevent AMR, doctors shall prescribe antibiotics only when they are necessary and appropriate. Rigorous infection prevention and control measures shall be implemented in the hospitals to reduce the spread of drug-resistant pathogens.

Overuse of antibiotics in food producing animals i.e. livestock (cows, buffalo, sheep, and goats) and in poultry and fish farming is also leading to Antimicrobial Resistance. **Antibiotics shall not be used for 'growth promotion' in livestock, poultry and fish.**



Environmental factors such as pollution from pharmaceutical manufacturing units and inappropriate disposal of unused antibiotics also contribute to antimicrobial resistance.

Antibiotics are 'Prescription Drugs'. Antibiotics are enlisted under Schedule-H and Schedule-H1 of Drugs Rules. Antibiotics can not be sold by medical shops or pharmacies without the prescription of a qualified doctor (Registered Medical Practitioner). Over-the-counter sale of antibiotics to patients by medical shops/pharmacies is punishable under Drugs and Cosmetics Act. **Stringent action shall be taken against medical shops/pharmacies that carry out the sale of antibiotics without the prescription of a qualified doctor.**

## CAUSES OF ANTIBIOTIC RESISTANCE

Antibiotic resistance happens when bacteria change and become resistant to the antibiotics used to treat the infections they cause.

- Over-prescribing of antibiotics
- Patients not finishing their treatment
- Over-use of antibiotics in livestock and fish farming
- Poor infection control in hospitals and clinics
- Lack of hygiene and poor sanitation
- Lack of new antibiotics being developed

## Role of public in fighting 'Antimicrobial Resistance'

The public has a crucial role in combating antimicrobial resistance. **Here are some ways the public can contribute to addressing AMR:**

- Antibiotics should be used only when prescribed by a qualified doctor. Antibiotics shall be purchased from a medical shop only on the basis of a 'prescription' issued by a qualified doctor.
- Antimicrobial Resistance can occur when you take an antibiotic that you do not need. Misuse and overuse of antibiotics is harmful. Rational use of antibiotics is must.

### For example:

- If you take an antibiotic for a common cold or upper respiratory infection, which are most likely viral infections. Antibiotics are **ONLY** for treating bacterial infections. Antivirals are **ONLY** for treating viral infections.
- If you start using antibiotics on the advice of a quack (unqualified practitioners) or a pharmacist in a medical shop and thus you buy a lower dose version than the actual drug and or take more than the required dose.

**This helps the microbes acquire resistance to the antibiotic drug i.e. leading to Antimicrobial Resistance (AMR).**

- Complete the full course of treatment (full prescription - number of doses of medicine, days etc as prescribed/directed by the doctor), even if you start to feel better before completing the course.

➤ It's important not to share antibiotics with others or use leftover antibiotics from previous treatments.

➤ **Be medicine smart!**

Got a headache? Common Cold? Stomach Pain?

Before you use the antibiotic or buy them from the medical shop, stop and think: **If I take this without a prescription, will it stop working for me when I need it?**

**Please remember: When you take antibiotics even if you don't need them, they can stop working when you need them most.**

➤ **Get talking!**

**You can help spread the word so that more and more of us protect against 'Antimicrobial Resistance'.**

**Tell your friends, tell your family.**

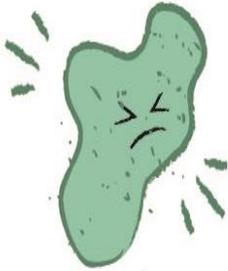
**“Misusing and overusing antibiotics puts us all at risk”**

**Date: 12-02-2024**

**V.B. KAMALASAN REDDY, IPS**

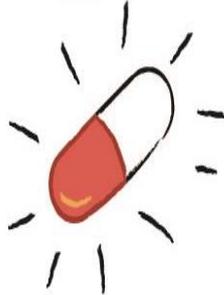
**DIRECTOR GENERAL**

## WHAT EXACTLY IS AMR?



### MICROBES:

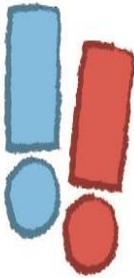
the bacteria, viruses, fungi and parasites that attack our body and make us sick.



### ANTIMICROBIALS:

the medicines – antibiotics, antivirals, antifungals and antiparasitics – that fight the harmful microbes to make us healthy again.

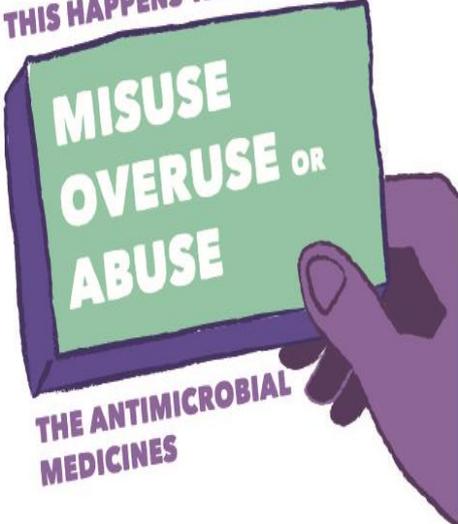
**ANTIMICROBIAL RESISTANCE**  
occurs when microbes become **RESISTANT** to those life-saving medicines.



It means infections such as malaria and tuberculosis become **harder to treat** or **incurable**. Health care costs will skyrocket due to more complex treatments and longer hospital stays. And millions more will be pushed into poverty due to financial hardship.

**Worst of all, millions of people could die.**

**THIS HAPPENS WHEN WE**



**MISUSE  
OVERUSE OR  
ABUSE**

**THE ANTIMICROBIAL  
MEDICINES**

We can prevent AMR.

# ANTIBIOTIC RESISTANCE

## HOW IT SPREADS



Antibiotics are given to food producing animals and crops



Animals develop drug-resistant bacteria in their gut



Drug-resistant bacteria reaches humans through food, the environment (water, soil, air) or by direct human-animal contact



Antibiotics are given to patients, which can result in drug-resistant bacteria developing in the gut



Patient attends hospital or clinic



Drug-resistant bacteria spreads to other patients through poor hygiene and unclean facilities



Drug-resistant bacteria spreads to the general public

Antibiotic resistance happens when bacteria change and become resistant to the antibiotics used to treat the infections they cause.