

HEALTH MESSAGE ON ANTIMICROBIAL RESISTANCE

Antimicrobial resistance occurs when microorganisms (e.g. bacteria, fungi, viruses, and parasites) develop the ability to survive exposure to antimicrobial drugs such as antibiotic, antifungals and antiviral that were previously effective at killing or inhibiting their growth. This makes it more difficult or impossible to treat infections caused by these microorganisms leading to serious illness or death.

Antimicrobial resistance is a major public health concern because it can limit the effectiveness of antimicrobial drugs, leading to longer-lasting and more severe infections and making it difficult to control the spread of infectious diseases.

Causes of Antimicrobial Resistance

1. **Overuse or inappropriate use of antimicrobial drugs.** When antimicrobial drugs are used frequently or for wrong indications e.g. (a use of antibiotics to treat viral infections such as common cold, failure to complete the prescribed dosage, and poor adherence) it can lead to the selection and proliferation of drug resistant strains of microorganisms.
2. **Lack of infection control measures:** poor hygiene and inadequate infection control measure in healthcare settings can contribute to the spread of drug-resistance microorganisms.



3. **Agricultural use of antimicrobials.** The widespread use of antimicrobials in agriculture can contribute to the development of drug-resistance bacteria in animals, which can then be transmitted to humans through the food supply.
4. **Poor sanitation and access to clean water:** Poor sanitation and lack of access to clean water can contribute to spread of drug-resistance infections particularly in developing countries.
5. **Lack of new drug development:** The slow pace of new drug development can also contribute to the problem of drug resistance, as it can take many years to develop new antimicrobial drugs and bring them to market.

Prevention of Antimicrobial Resistance

- i. **Use antimicrobials responsibly:** Antimicrobials should only be used when necessary, and should be prescribed and used according to established guidelines. This includes using the right drug, at the right dose, for the right duration of time.
- ii. **Practice good hygiene:** Proper hand washing and other infection control measures can help to prevent the spread of infections and reduce need for antimicrobials.
- iii. **Promote vaccination:** Vaccines can help prevent the spread of infectious diseases, reducing the need of antimicrobials.
- iv. **Implement proper food safety measures:** Proper handling and cooking of food can help to reduce the risk of foodborne illnesses and need for antimicrobials.





UNIVERSITY OF EMBU

- v. Reduce the use of antimicrobials in agriculture: The use of antimicrobials in agriculture should be minimized, and alternative methods should be sought to control and prevent infectious diseases in animals.
- vi. Increase public awareness: Raising public awareness about the responsible use of antimicrobials and the importance of infection control can help to reduce the spread of drug –resistance infections.

Effects of Antimicrobial Resistance

- i. Drug-resistant infections are often more severe and can take longer to treat, which can lead to increased morbidity and mortality.
- ii. Economic cost: It is costlier to treat drug-resistant infections due to the need for more expensive medications and duration of treatment placing a burden on healthcare systems and individuals.
- iii. Disruption of healthcare: The emergency and spread of drug resistant infections can lead to disruption of healthcare as hospital resources maybe strained and patients may be unable to receive the necessary care.



ISO / IEC 27001 : 2013 Certified

Knowledge Transforms



ISO 9001 : 2015 Certified