



Antimicrobial-Resistant Gonorrhoea

For Prelims: Gonorrhoea, Antimicrobial resistance

For Mains: Causes and Impacts of Anti-Microbial Resistance (AMR)

Why in News?

Recently, a strand of [antimicrobial-resistant gonorrhoea](#) outbreak has hit Kenya.

- Researchers have raised alarm, warning this **infection is asymptomatic in some cases** and can cause significant health challenges, including **permanent damage to their reproductive systems**.

What is Gonorrhoea?

- **Gonorrhoea** is a [sexually transmitted infection \(STI\)](#) caused by the bacterium **Neisseria gonorrhoeae**.
 - It can infect both men and women and can occur in the **genitals, rectum, and throat**.
 - If left untreated, gonorrhoea can cause serious health problems, including infertility and an **increased risk of [Human Immunodeficiency Virus \(HIV\) infection](#)**.
- **According to the [World Health Organization \(WHO\)](#)**, it is the **second-most common disease to be sexually transmitted** across the world after **chlamydia**.
- Gonorrhoea is typically treated with [antibiotics](#), but the bacteria have become **increasingly resistant** to many of the drugs that were once effective.

What is Anti-Microbial Resistance (AMR)?

- **About:**
 - **Antimicrobial resistance (AMR)** is the ability of microorganisms (such as bacteria, viruses, fungi, and parasites) to resist the **effects of antimicrobial drugs** (such as antibiotics, antivirals, antifungals, and antiparasitics).
 - Also, Microorganisms that develop antimicrobial resistance are sometimes referred to as **“superbugs”**.
- **Causes:**
 - Poor infection control and **inadequate sanitation and hygiene**.
 - **Overuse of antibiotics** and repeated use of poor-quality drugs.
 - Genetic mutations of the bacteria.
 - Lack of investment in research and development of new antimicrobial drugs.
- **Impacts:**
 - AMR **increases the risk of infections** spreading and becoming harder to treat, leading to **prolonged illness, disability and death**.

- It also **increases healthcare costs** and threatens the sustainability of healthcare systems.
- **Recognition in India:**
 - The [National Health Policy 2017](#) highlights the problem of **antimicrobial resistance and calls** for effective action to address it.
 - The **Ministry of Health & Family Welfare (MoHFW)** identified AMR as one of the top 10 priorities for the ministry's collaborative work with the **World Health Organization (WHO)**.
 - India has instituted **surveillance of the emergence of drug resistance** in disease causing microbes in programmes on [Tuberculosis](#), **Vector Borne diseases**, [Acquired immunodeficiency syndrome \(AIDS\)](#), etc.
 - **Government Initiatives :**
 - **National Programme on AMR containment:** Launched in 2012. Under this programme, **AMR Surveillance Network** has been strengthened by establishing labs in State Medical College.
 - **National Action Plan on AMR:** It focuses on [One Health approach](#) and was launched in April 2017 with the aim of involving various stakeholder ministries/departments.
 - **AMR Surveillance and Research Network (AMRSN):** It was launched in 2013, to generate evidence and capture trends and patterns of drug resistant infections in the country.
 - **Antibiotic Stewardship Program:** [Indian Council of Medical Research \(ICMR\)](#) Has initiated Antibiotic Stewardship Program (AMSP) on a pilot project across India to control misuse and overuse of antibiotics in hospital wards and ICUs.

Conclusion

- **Controlling antimicrobial resistance is crucial for maintaining public health** and preventing the spread of drug-resistant infections. To achieve this, it is important to implement measures such as **limiting the use of antimicrobial drugs** to only reasonable cases, improving infection control, investing in research and development, and promoting international cooperation.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q. Which of the following are the reasons for the occurrence of multi-drug resistance in microbial pathogens in India? (2019)

1. Genetic predisposition of some people
2. Taking incorrect doses of antibiotics to cure diseases
3. Using antibiotics in livestock farming
4. Multiple chronic diseases in some people

Select the correct answer using the code given below.

- (a) 1 and 2
- (b) 2 and 3 only
- (c) 1, 3 and 4
- (d) 2, 3 and 4

Ans: (b)

Mains

Q. Can overuse and free availability of antibiotics without Doctor's prescription, be contributors to the emergence of drug-resistant diseases in India? What are the available mechanisms for monitoring and control? Critically discuss the various issues involved. (2014)

Source: DTE

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