

Credit - Drishti Ias

Nightmare Bacteria



Source: TOI

Drug-resistant nightmare bacteria infections are surging in the **United States** , with **NDM-1 (New Delhi Metallo-beta-lactamase-1)** cases rising fivefold from 2019–2023.

Nightmare Bacteria

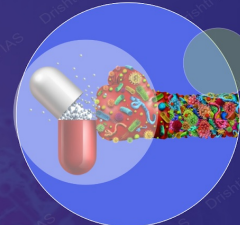
- **About:** Nightmare bacteria are **Carbapenem-resistant Enterobacteriaceae (CRE)** like *Klebsiella pneumoniae* and *E. coli* , resistant to **last-resort carbapenem antibiotics**.
 - They are called “**nightmares**” because they **spread resistance genes easily** and **cause severe, often fatal infections** in the **bloodstream, lungs, and urinary tract**.
- **Global Spread:** This is **not US-specific** ; **NDM-producing bacteria** are widespread in **South Asia** , and **international travel** and **trade** make **Antimicrobial Resistance (AMR)** a global challenge.
 - **AMR** occurs when **microorganisms** (bacteria, viruses, fungi, parasites) develop resistance to **antibiotics** and **antivirals** , making infections harder to treat and easier to spread.

NDM-1 Gene

- NDM-1 is a **gene found in certain bacteria** that enables them to produce an enzyme called **New Delhi metallo-beta-lactamase** .
- This enzyme makes the bacteria **resistant** to many **powerful antibiotics**, including some of the **last-resort drugs** .

ANTIMICROBIAL RESISTANCE

The ability of microorganisms to resist the effects of antimicrobial drugs



CAUSES OF ↑ AMR

- Poor infection control/sanitation
- Antibiotic overuse
- Genetic mutations of microbe
- Lack of investment in R&D of new antimicrobial drugs

Microbes that develop AMR are called 'Superbugs'

IMPACTS OF AMR

- ↑ Risk of spreading infections
- Makes infections harder to treat; prolonged illness
- ↑ Healthcare costs

EXAMPLE

- Carbapenem antibiotics stop responding due to AMR in *K. pneumoniae*
- AMR *Mycobacterium tuberculosis* causing Rifampicin-Resistant TB (RR-TB)
- Drug-resistant HIV (HIVDR) making antiretroviral (ARV) drugs ineffective

RECOGNITION BY WHO

- Identified AMR as one of the top 10 threats to global health
- Launched GLASS (Global Antimicrobial Resistance and Use Surveillance System) in 2015

INDIA'S INITIATIVES AGAINST AMR

- Surveillance of AMR in microbes causing TB, Vector Borne diseases, AIDS etc.
- National Action Plan on AMR (2017) with One Health approach
- Antibiotic Stewardship Program by ICMR

New Delhi metallo- β -lactamase-1 (NDM-1) is a bacterial enzyme, emerged from India, that renders all current β -lactam antibiotics inactive

[Read More: India's AMR Crisis](#)

China to Retain 'Developing Status' but Forgo WTO Benefits



Source: TOI

China announced it will no longer seek **Special and Differential Treatment (SDT)** in future **World Trade Organisation (WTO) agreements**, though it will retain its **developing country status**.

- **China**, now the world's second-largest economy at **USD 19 trillion**, has grown from **USD 1.3 trillion** since joining the WTO in **2001**.

WTO Developing Nation Status

- **Self-Declaration:** WTO lacks an official definition of **developing or developed** nations; members self-designate their status, though others can **challenge** if benefits are misused.
 - Self-declared **developing country status** at the **WTO** does not guarantee benefits under unilateral

schemes like **Generalized System of Preferences (GSP)** .

- China's decision to forgo **SDT** is **voluntary, not imposed** .
- It will retain its **developing country status** and past rights, while projecting itself as a **responsible major developing country** ready to accept stricter trade obligations to reinforce **multilateralism** .
- **Significance of the Status: SDT** provides developing and least-developed countries with greater flexibility in meeting obligations, such as **longer timeframes, preferential treatment, technical assistance, and exemptions**.
 - It is designed to promote **equity in trade rules** by acknowledging the varying capacities of member countries.
- **Implications: This move breaks a major negotiating logjam by sidestepping the contentious developed vs. developing debate , potentially unlocking progress on new trade agreements .**
 - This development **allows India to advocate WTO reforms** distinguishing **large middle-income from low-income developing nations** , and to push for clear, fair criteria for SDT to end "self-designation" ambiguities.

MAJOR TRADE AGREEMENTS OF INDIA

Free Trade Agreement (FTA) With Neighbouring Countries

- India-Sri Lanka FTA
- India-Nepal Treaty of Trade
- India-Bhutan Agreement on Trade, Commerce, and Transit

Regional FTA's of India

- India ASEAN Trade in Goods Agreement (11): 10 ASEAN countries + India
- South Asia Free Trade Agreement (7): India, Pakistan, Nepal, Sri Lanka, Bangladesh, Bhutan, and the Maldives
- Global System of Trade Preferences (41 countries + India)

India's CECAs and CEPAs

CECA/CEPA is broader than FTAs, addressing regulatory, trade, and economic aspects comprehensively, with CEPA having the widest scope including services, investment, etc while CECA mainly focuses on tariff and TQR rates negotiation.

- CEPA with UAE, South Korea, Japan
- CECA with Singapore, Malaysia

A free trade agreement is a comprehensive deal between countries, offering preferential trade terms and tariff concessions, with a negative list excluding specific products and services.

Others:

- India-Australia Economic Cooperation and Trade Agreement (ECTA)
- India-Thailand Early Harvest Scheme (EHS)
- India-Mauritius Comprehensive Economic Cooperation and Partnership Agreement (CECPA)

An EHS precedes an FTA/CECA/CEPA, where negotiating countries select products for tariff liberalisation, paving way for broader trade agreements and fostering confidence.

Preferential Trade Agreements (PTAs)

Partners in a PTA grant preferential access to specific products by lowering duties on agreed tariff lines, maintaining a positive list of products eligible for reduced or zero tariffs.

- Asia Pacific Trade Agreement (APTA): Bangladesh, China, India, S. Korea, Lao PDR, Sri Lanka, and Mongolia
- SAARC Preferential Trading Agreement (SAPTA): Same as SAFTA
- India-MERCOSUR PTA: Brazil, Argentina, Uruguay, Paraguay and India
- India's PTA with Chile, Afghanistan

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Read More: Developing Country Tag to China: WTO