

First-Ever List of Fungal Infections

For Prelims: Fungal Infection, Fungal Priority Pathogen List, World Health Organization

For Mains: Concerns regarding Fungal Pathogen, Fungal Priority Pathogen List

Why in News?

Recently, The <u>World Health Organisation</u> released the first-ever list of fungal infections (Priority Pathogens) that can be a threat to public health.

What is WHO's Fungal Priority Pathogen List?

- About FPPL:
 - Fungal priority pathogens list (FPPL) includes 19 fungi that represent the greatest threat to human health.
 - The list takes precedence from the **bacterial priority pathogens list,** first established by **WHO in 2017** with a similar focus to galvanise global attention and action.
- Aim:
- It aims to **focus and drive further research and policy interventions** to strengthen the global response to fungal infections and antifungal resistance.
- Categories:
 - The classification is based on the pathogen's public health impact or emerging antifungal resistance risk.
 - **Critical Priority Group:** It includes Candida auris, which is a highly drug-resistant fungi, Cryptococcus neoformans, Aspergillus fumigatus, and Candida albicans.
 - **High Priority Group:** It includes a number of other fungi from the Candida family as well as others such as Mucorales, a group containing "black fungus", an infection which rose rapidly in seriously ill people, particularly in India, during Covid-19.
 - Medium Priority Group: It includes a number of other fungi, including Coccidioides spp and Cryptococcus gattii.
- Recommended Actions by FPPL Report:
 - Strengthening laboratory capacity and surveillance.
 - Sustaining investments in research, development, and innovation.
 - Enhancing public health interventions for prevention and control.

What are the Rising Concerns related to Fungal Pathogens?

- Concerns:
 - Fungal pathogens are a major threat to public health and are becoming increasingly common and resistant to treatment with only four classes of antifungal medicines currently available, and few candidates in the clinical pipeline.
 - Most fungal pathogens lack rapid and sensitive diagnostics and those that exist are not widely available or affordable globally.

- Emerging evidence indicates that the incidence and geographic range of fungal diseases are both expanding worldwide due to global warming and the increase of international travel and trade.
- During the COVID-19 pandemic, the reported incidence of invasive fungal infections increased significantly among hospitalized patients.
- As the fungi that cause common infections (such as candida oral and vaginal thrush) become increasingly resistant to treatment, risks for the development of more **invasive forms of infections** in the general population are also growing.

Target Population:

- These fungal infections often affect severely ill patients and those with significant underlying immune system related conditions.
- Populations at greatest risk of invasive fungal infections include those with cancer, HIV/AIDS, organ transplants, chronic respiratory disease, and post-primary tuberculosis infection.

Source: IT

