

THE IMPACT OF INVASIVE FUNGAL INFECTIONS

We often think of fungal infections as simply bothersome conditions such as athlete's foot or toenail fungus. But certain types of fungal infections, known as **"invasive fungal infections" (IFIs)**, can be dangerous and fatal. IFIs are systemic and are typically caused when fungi invade the body in various ways such as through the bloodstream or by the inhalation of spores. IFIs can also spread to many other organs such as the liver and kidney. They are associated with **serious illness and death, rising drug resistance and increasing healthcare costs.**



A GROWING GLOBAL HEALTH THREAT

Annual Worldwide Deaths from IFIs
>1.5 MILLIONⁱ



15 to 65% mortalityⁱⁱ

The Centers for Disease Control and Prevention (CDC) estimates **drug-resistant bacterial and fungal infections cost the U.S. healthcare system approximately \$20 to \$25 billion annually.ⁱⁱⁱ**



BY THE NUMBERS

Nearly
90%
of IFI-related
deaths



Candida



Aspergillus

- Invasive candidiasis (*Candida*) is a common hospital-acquired infection in the U.S., **resulting in about 46,000 cases each year.^v**
- Invasive aspergillosis (*Aspergillus*) occurs most often in people with weakened immune systems or lung disease, and its prevalence is **rising among stem cell and solid organ transplant recipients.^{vi}**

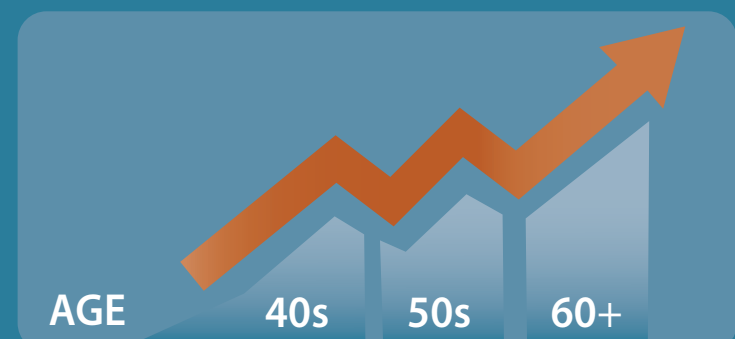
ON THE RISE

An increasing number of people in the U.S. have **compromised immune systems**, putting them at greater risk for IFIs.^x High-risk groups include:

- hospitalized patients
- cancer or transplant patients
- patients undergoing surgery
- patients with chronic diseases



Rates of invasive candidiasis are difficult to estimate and can vary based on time, region, and study type.



Still, it is clear that overall **incidence and related mortality** remain high - especially among **older patients.^{viii}**

***Candida auris* (C. auris)** is an emerging drug-resistant fungus that spreads quickly and has caused serious and deadly infections in over a dozen countries.



The CDC estimates that **more than one in three patients** in the U.S. with invasive **C. auris** infection will die.^{ix}

NEED FOR MORE EFFECTIVE THERAPIES

There is an increasingly urgent need to develop new therapies for IFIs, **particularly medications that can be used to prevent fungal infections among patients with compromised immune systems.**



2006



2019

No new antifungals have been approved for the treatment of invasive *Candida* infections or the prevention of *Candida* or *Aspergillus* infections in over a decade.

Currently available treatments for IFIs have significant limitations such as:

- toxicities/side effects
- inconsistent achievement of target drug levels
- interactions with other drugs
- increasing microbial resistance

As the urgency around IFIs rises, multiple biopharma companies and researchers are working to develop new therapies to treat and prevent them.

For more information about serious fungal diseases, please visit the CDC website at: [cdc.gov/fungal](https://www.cdc.gov/fungal).



ⁱ <https://www.cidara.com/rezafungin/#opportunity>
ⁱⁱ <http://ir.cidara.com/phoenix.zhtml?c=253962&p=RssLanding&cat=news&id=2354755>
ⁱⁱⁱ https://www.cdc.gov/eid/article/23/2/15-2042_article
^{iv} <https://www.cidara.com/rezafungin/#opportunity>
^v <https://www.cdc.gov/fungal/diseases/candidiasis/invasive/statistics.html>
^{vi} <https://www.cdc.gov/fungal/diseases/aspergillosis/statistics.html>
^{vii} <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3928396/>
^{viii} https://www.cdc.gov/fungal/diseases/candidiasis/pdf/Candida_auris_508.pdf
^x <https://www.cdc.gov/fungal/cdc-and-fungal.html>