

# Are fungal infections the next superbugs?

Like microbials, fungal infections seem to be reinventing themselves into deadly threats capable of outsmarting available modes of treatment.

"Fungi are extremely tough and manipulate the immune system to prevent themselves being recognised, they are very slippery customers," Professor Neil Gow from the University of Aberdeen told [BBC Health](#).

## ...nobody's ever died of athlete's foot

More than one million people die from fungal infections around the world each year, more people than malaria or breast cancer but are not considered a priority.

"Most people know about mild fungal infections, but nobody's ever died from athlete's foot," he said.



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People with compromised immune systems - patients with HIV, undergoing cancer therapy or who are taking immunosuppressant drugs after an organ transplant are also more susceptible to infection.

"It's an underappreciated problem and it's a very serious challenge in the parts of the world least equipped to deal with it," Gow added.

There are more than five million types of fungi, but only three major groups cause the majority of deaths in people:

- Aspergillus - which affects the lungs
- Cryptococcus - which mainly attacks the brain
- Candida - which infects mucosal membranes including in the mouth and genitals

## New fungus

And it seems there's a new type of Candida auris in town, which is affecting patients in a hospital in south-east England.

The infection first came to light in Japan seven years ago, but has since been discovered across Asia and parts of South America.

According to the British public health authority, the strain appears to be unlike other pathogenic yeast species in its propensity for transmission between hospital patients. It also warned the infection was resistant to the first choice anti-fungal drug.

## New guidelines for aspergillosis

Meanwhile, MNT reported a [new treatment protocol](#) for invasive aspergillosis – which emphasises the critical need for early diagnosis.

Because it comprises a series of complicated infections with a number of treatment options, patients really benefit from a multidisciplinary approach, says the lead author of new guidelines, Thomas Patterson, chief of the division of infectious disease and professor of medicine at The University of Texas Health Science Centre.

The updated guidelines were published in the [Clinical Infectious Diseases](#) journal, and cover three major forms of aspergillosis: allergic, chronic pulmonary, and invasive.

The allergic form is most common and affects millions of people worldwide. Those with asthma and cystic fibrosis are at highest risk of developing allergic aspergillosis, while chronic pulmonary aspergillosis, which can affect healthy people, occurs in about 400,000 people worldwide.

Although they require treatment, these forms rarely kill. However, invasive aspergillosis, which affects about 200,000 people worldwide, kills 40-80% of those with widespread infection.

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