To Fight Deadly Candida Auris, New York State Proposes New Tactics

By Matt Richtel

New York State health officials are considering rigorous new requirements for hospitals and nursing homes to prevent the spread of a deadly drug-resistant fungus called Candida auris.

The requirements could include mandatory pre-admission screening of patients believed to be at-risk and placing in isolation those patients who are infected, or even those just carrying the fungus on their skin.

Dr. Howard Zucker, the state health commissioner, and a fungal expert from the federal Centers for Disease Control and Prevention met last Friday in Manhattan with nearly 60 hospital officials from across the state to discuss the proposed guidelines. State health officials said they were seeking hospital input before issuing the guidelines, which they acknowledged would likely be a hardship for some institutions.

Screening can be costly and time-consuming, but the officials said they are determined to stop the spread of C. auris, a fungus of mysterious origin that has been quietly spreading around the world since it was first identified in 2009. Most of the state’s 331 cases of the disease, which is often resistant to antifungal medication, were in Brooklyn and Queens.

While C. auris is not the first drug-resistant germ to take hold, it is so dangerous and easily spread that it is putting new kinds of pressures on the health care system. One hallmark of C. auris is that it can be very difficult to clean from equipment or clothing, and it may spread through the air. Officials suspect that the spores can be shaken loose from bedding and they have been known to cling to walls and ceiling tiles.

“One of our guiding objectives is to stop the geographic spread,” said Brad Hutton, the state’s deputy commissioner of public health. He said the state’s efforts to contain the spread have required significant resources — including sending individual infection specialists to investigate more than 150 cases — and that New York now needs help from individual institutions.
“We’re at a point where our response strategy needs to change,” he said. He added that he hoped the guidelines would be finalized by the end of the year, but said the state is still determining whether to apply them statewide or just to New York City and surrounding areas. It has yet to be decided whether the guidelines would be recommendations or regulatory requirements, he said.

Zyene Sumer King, a vice president of the Greater New York Hospital Association, a trade group that represents hospitals in the metropolitan region, described the meeting as “very productive and very collaborative.” But she said hospitals raised concerns about such matters as whether hospitals have lab capacity and expertise to handle on-site testing.

For the moment, she said, hospitals are pre-screening many patients who appear to be at risk. But it can take a week to get skin-swab results back from the state laboratory, posing challenges for housing patients in isolation during the interim. Further, she said, regular testing is likely to turn up patients who are carriers but not infected, increasing the number of patients who require isolation, appropriately or not.

“The more we screen the more we find colonized cases,” she said, “That takes up space and more beds.”

The steps proposed by New York, while “draconian,” are probably right to do, said Matthew Fischer, a professor of fungal epidemiology at Imperial College London, and co-author of a recent scientific review on the rise of resistant fungi. “We’re dealing with something very unusual here,” he said. “It think it seems wise, seeing as we don’t really know what we’re dealing with, to at least attempt control.”

The thoughts were echoed by Dr. Tom Chiller, head of the fungal division of the C.D.C., who said New York is “at the forefront and has not shied away” from tackling an issue for which it has been “ground zero.”

“Going for it now makes sense,” he said, adding of auris: “We have to see if we can stamp it out or keep it in check.”

The germ has also spread in New Jersey and Illinois, particularly the Chicago area. The spread of the germ in some hospitals and nursing homes has been cloaked in secrecy even as it can lead to devastating outcomes for individual patients and their families.
According to the C.D.C., 90 percent of C. auris infections are resistant to at least one drug and 30 percent resistant to at least two drugs. New York State has seen three cases that are resistant to all known treatments. The C.D.C. reports that nearly half the patients who contract C. auris die within 90 days. Most people infected by the germ are already very ill or have compromised immune systems.

It is patients like these that New York state health officials would like to see “prescreened” when they arrive at a hospital — including people who have recently stayed at a hospital intensive care unit or nursing home in Brooklyn or Queens; and those who are on ventilators, catheters or other invasive equipment that allow the infection to enter the body.

Ms. King, from the hospital association, said that hospitals are already screening patients from nursing homes in the affected areas.

The germ is so virulent that the C.D.C. recommends those infected or even just colonized with the fungus — meaning they carry the disease without being infected — should be isolated in individual rooms.

For now, much of the burden for surveillance has fallen to the state. The effort has involved the development of a fast-screening test that can analyze a skin swab in a matter of hours. But all hospitals, for the moment, have to send those tests to a state laboratory in Albany and wait several days before receiving the results, though hospitals say the backlog means tests can take a week.

Officials say they are hoping to eventually deploy the tests so they can be done on-site. An additional challenge is dealing with an unusual aspect of C. auris: It doesn’t seem to go away once it’s on the skin, said Dr. Eleanor Adams, a state public health physician who has led the surveillance efforts of C. auris in New York City.

Dr. Adams and her team have made 173 visits to follow-up on suspected and confirmed cases at hospitals and nursing homes, and also to test people who came in contact with infected patients. Initially, she said, the team was testing people infected and colonized every few weeks, but she realized that people who are colonized typically remain that way, sometimes indefinitely.

“The question remains if anyone is truly cleared. That is an academic point we don’t know,” she said. Oh Oh Looks like we need to use natural medicine + boost Immunity.
Candida Auris: Why This Fungus Is An Emerging Threat

Here is a computer illustration of the unicellular fungus (yeast) Candida auris, which was first identified in 2009.

GETTY

There's nothing fun about this fungus that's a yeast.

Candida auris can, did, and is continuing to spread in hospitals around the world. It can remain on people's skin and objects, such as hospital furniture and equipment, for quite a long time. Thus, it can spread indirectly from patient to patient. It can invade your body and kill you if your immune system is weakened. It can be resistant to the three major classes of anti-fungal drugs, leaving doctors with few options to treat C. auris infections.

Therefore, candi-don't take lightly what the Centers for Disease Control and Prevention (CDC) has dubbed a "global emerging threat." At "yeast," get to know more about this yeast.
To get a sense of how troublesome *Candida auris* can be, take a look at a study published last year in the journal *Emerging Infectious Diseases*. This study reviewed 51 cases of *C. auris* infections that had occurred in healthcare facilities in New York City from 2016 to 2018. All of the patients already had serious medical conditions prior to getting infected and ranged in age from 21 to 96 years old. Nearly half (45%) of the patients ended up dying within 90 days of being diagnosed with *C. auris* infections. Nearly all (98%) of the *C. auris* samples from 50 of the patients were resistant to fluconazole, a commonly used antifungal drug. Testing of different objects and rooms revealed *C. auris* in the environments of 15 of the 20 healthcare facilities.

Here is a petri dish with the yeast *Candida auris* growing. (Photo by Nicolas Armer/picture alliance via Getty Images)

Typically, *C. auris* infections occur after a patient has been in a healthcare facility for several weeks. The most commonly reported infections have been in wounds, bloodstreams, and ears. Doctors have found the fungus in people’s urine and respiratory tracts, but it is unclear whether the fungus just hangs out in those places without causing trouble. For now, if your immune system is strong, your chances of getting a life-threatening *C. auris* infection are very low. Risk goes up if you have a chronic disease like diabetes mellitus or have had recent surgery, recent antibiotic treatment, or a central venous catheter. However, as Sarah Connor said in the *Terminator*, the future is unknown. Who knows if one day *C. auris* will be a threat to healthy people as well?

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In June 2016, the CDC issued an alert to healthcare facilities about this growing threat. The first official reported case of *C. auris*, occurred in Japan in 2009. Since then, *C. auris* has appeared in many countries including South Korea, India, South Africa, Kuwait, Colombia, Venezuela, Pakistan, the United Kingdom, and the United States.

The question though is how candid are healthcare facilities being about their *Candida auris* problems? Not as candid as they could be, according to what Matt Richtel and Andrew Jacobs wrote for the *New York Times*. Their article described what happened after Royal Brompton Hospital in London realized that it had a *C. auris* problem in 2015. While the hospital had alerted the British government and the infected patients, the hospital "made no public announcement." (At "yeast", they told the infected patients.) As Richtel and Jacobs wrote, "Individual institutions and national, state and local governments have been reluctant to publicize outbreaks of resistant infections, arguing there is no point in scaring patients — or prospective ones."

Uh, no point in scaring patients? That's like saying that there is no point in letting people looking to watch *Shazam* know that there is currently a tiger on the loose in a movie theater. You have a right to know about something that may kill you or your loved ones. When choosing a healthcare facility, how well that facility prevents and controls infections should be a major deciding factor. After all, would you go to a pizza place that's known for diarrhea even though its pizza is delicious?

There are steps that healthcare facilities can take to control the spread of *C. auris*. Detecting and diagnosing this fungus quickly are important. This is not always easy since *C. auris* can be mistaken for other types of *Candida* species. Once a patient is diagnosed with having *C. auris*, the healthcare facility should place the patient in a separate room as soon as possible. Everyone entering the room should take precautions that include wearing disposable gloves and gowns. It is also key for healthcare facilities with *C. auris* to regularly and thoroughly clean and disinfect affected patients’ rooms with special cleaners known to work against fungi. The Environmental Protection Agency (EPA) has a list of such cleaners.
A lot of the focus on battling antimicrobial-resistant organisms has been on antimicrobial-resistant bacteria. However, it is not enough to just get your bacteria. The emergence of drug-resistant *C. auris* is a reminder that other microbes out there can also become resistant to our available weapons. *Candida*, in general, may be best known for causing diaper rash. But it's important to realize that certain strains of *Candida* can cause far worse problems, especially if they are resistant to anti-fungals. Not taking a more urgent approach to dealing with *C. auris* would not only be rash, but would leave us immersed in what you often find in diapers.