

19 January 2022

**Fungal infections in Africa: no adequate treatment despite millions of affected patients**

*A survey in 21 African countries has shown that medical care needs to be enhanced in the area of fungal infections. Above all, access to testing methods and medication are lacking / publication in ‘THE LANCET Microbe’*

Together with an international team of experts, Professor Dr Oliver Cornely, head of the European Excellence Center for Invasive Fungal Infections at University Hospital Cologne, has conducted a study to investigate the current situation of clinical mycology – the treatment of fungal diseases – on the African continent, revealing significant deficits. The results have been published in *THE LANCET Microbe*.

Fungal diseases occur very frequently. Especially invasive infections are difficult to diagnose and complicated to treat. Because of its high medical significance, clinical mycology has long become a major scientific field in Europe, North America, and Australia. In many poorer countries, however, the scientific discussion of these diseases does not do justice to the frequency of their occurrence: Even in the face of many infections, treatment standards are relatively low.

The African continent accounts for about one-fifth of the world’s population. People are exposed to a variety of risk factors for fungal infections, including limited access to medical care, environmental factors, and generally poor living conditions. ‘The high burden of fungal infections is a major challenge in Africa which not all healthcare systems are currently fully equipped to address,’ said Professor Cornely. ‘COVID-19 currently adds another major challenge. Our study is the first of its kind to focus on mycological diagnosis and treatment across Africa.’

The study was led by the umbrella organizations ECMM (European Confederation of Medical Mycology) and ISHAM (International Society for Human and Animal Mycology). Both are dedicated to improving the care of patients with serious and life-threatening fungal infections worldwide. ECMM is the umbrella organization for 27 professional societies, including the European Excellence Center in Cologne headed by Cornely.

The research team developed a 29-item questionnaire. Together with mycologists from Nigeria, Uganda, and South Africa, the aim of the team was to assess, among other things, the occurrence of various pathogens, the detection possibilities in laboratories, and the availability of antifungal medications. The questionnaire was online for almost a year and was advertised on various channels. The respondents were mostly university hospitals in 21 African countries. ‘We are very pleased with the response rate of almost 25 percent,’ Cornely added. ‘This is not a matter of course. But without sufficient data, we cannot arrive at serious results and develop recommendations for improvement.’

Five of the institutions that responded to the survey (12.5 per cent) in Cameroon, Kenya, Nigeria, Sudan, and Uganda meet the minimum laboratory requirements defined by the ECMM. Shortcomings of other institutions included lack of access to testing methods for fungal infections. This is currently possible in only 30 per cent of the institutions. Antigen detection of the pathogen *Aspergillus* is also available in only 47.5 per cent of the institutions that took part in the survey. Another significant problem is the supply of drugs to treat fungal infections, such as amphotericin B deoxycholate, itraconazole, voriconazole and posaconazole, which are available in 52.5 per cent, 52.5 per cent, 35 per cent, and 5 per cent of the institutions, respectively.

A similar study is currently being conducted for Asia by ECMM/ISHAM and for Europe by ECMM. Results will be available soon. Both surveys are still open for participation (see link below).

The European Excellence Center for Invasive Fungal Diseases at University Hospital Cologne provides consultation and advice on the treatment of affected patients, coordinates local and international research projects, and actively passes on expertise in the field to other health care professionals. Professor Oliver Cornely heads the Excellence Center at University Hospital Cologne and holds the Chair for Translational Research at the University of Cologne’s CECAD Cluster of Excellence in Aging Research. He moreover serves as scientific director of the Clinical Trials Center Cologne (ZKS Köln).

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**Publication:**

<https://www.thelancet.com/journals/lanmic/article/PIIS2666-5247(21)00190-7/fulltext>

**More information:**

<https://www.ecmm.info/>

<https://www.isham.org/>

<https://innere1.uk-koeln.de/klinik/europaeisches-exzellenzzentrum-fuer-invasive-pilzinfektionen/>

**Study participation Asia/Europe:**

<https://www.clinicalsurveys.net/uc/IFI_management_capacity/>