

Public relations and event management

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Press release
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Cutting-edge mycology research at Med Uni Graz: A world leader in excellence

Graz, 17 February 2023: Med Uni Graz is ranked among the best 200 universities in the world. The top-level research it conducts has significantly contributed to its success. An example of this is provided by a publication accepted by the high-impact journal Lancet Infectious Diseases. Martin Hoenigl from the Division of Infectious Diseases has appeared in the latest issue of the world-famous journal as the first author of a European multicenter trial on the diagnosis and treatment of candidemia, a fungal infection of the blood. More information on this study and the researcher's further achievements related to fungal disease is available here.

The dangers of candidemia

Candidemia refers to a disease in which the *Candida* yeast enters the blood and is able to spread throughout the body via the bloodstream. "Invasive *Candida* infections are the most common opportunistic fungal infections worldwide. Opportunistic infections refer to diseases that take advantage of poor general heath or a weakened immune system. Candidemia is one of the most common infections of the bloodstream in intensive care units. Increasing resistance rates and new, more aggressive *Candida* pathogens that have adapted to human body temperature due to global warming present great problems," says Martin Hoenigl. In Graz there are slightly over 20 cases annually. Around 700,000 candidemia infections are registered worldwide each year. Candidemia is associated with high mortality rates.

A multicenter trial with 64 participating institutions in 20 countries investigated how much of an effect compliance with current clinical treatment guidelines had on patient mortality. These international guidelines have been created to improve diagnosis and treatment of the disease, yet whether this has indeed occurred has not been sufficiently investigated. The very wide-ranging international trial should help improve the availability of data, check the guidelines for their effectiveness and draw conclusions about further improvements in treatment.

Trial details

A total of 597 patients were included in the trial, which primarily analyzed mortality after 90 days and the EQUAL Score, which records the quality of treatment and compliance with the guideline recommendations. The death rate of candidemia after 90 days is 43%, which is gener-



ally high. The trial identified compliance with international treatment guidelines as being an extremely important factor in reducing mortality. "It was striking that not only compliance with all the guidelines but also compliance with any of the individual guideline recommendations was associated with lower mortality." To counteract resistance to standard antimycotics that is increasingly being detected in people infected with *Candida* and reduce the length of hospital stays, new antifungal drugs that have a longer half-life and are able to be taken orally are required. "Every sixth patient with candidemia must be hospitalized longer simply to complete intravenous antifungal therapy since there are no effective drugs that can be administered on an outpatient basis for several *Candida* species," says Martin Hoenigl.

Winner of the Creating Possible Award

Martin Hoenigl's Med Uni Graz research on fungal infections has also been recognized by others. The researcher received EUR 23,843 in research funding for a project on improving the diagnosis of multiple fungal infections in the lung. The Creating Possible Award is sponsored by the biopharmaceutical company Gilead Sciences.

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Profile of Martin Hoenigl:

Following his habilitation on the subject of systematic fungal infections in 2012, Martin Hoenigl spent several years at the Division of Infectious Diseases at the University of California-San Diego. Since 2021 he has been an associate professor of translational mycology at the Medical University of Graz. Martin Hoenigl is the current president of the European Confederation of Medical Mycology, one of the largest societies in this field, and the author of over 250 scientific publications.

Link to publication:

Guideline adherence and survival of patients with candidaemia in Europe: results from the ECMM Candida III multinational European observational cohort study https://authors.elsevier.com/a/1gbjo5E-UoYvwM