FungiScope *Candida* Campaign

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FUNGISCOPE
CANDIDA INFECTION REGISTRY

CANDIDA
Working Group of the ECMM & ISHAM

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Contents

Background

Invasive candidiasis and candidemia (IC/C) are severe infections that can potentially be fatal, especially in hospitalized patients.[1,2] The epidemiology of IC/C is continuously evolving and is marked by an increasing prevalence of non-*albicans Candida* species, including *C. glabrata*, *C. parapsilosis*, and *C. auris*.[3] These species often present greater challenges in treatment compared to *C. albicans*, leading to extended hospital stays and higher mortality rates.[1,2] Moreover, there is a rising incidence of acquired resistance to antifungal agents like fluconazole and echinocandins in various species, such as *C. glabrata* and *C. parapsilosis*.[2,3] *Candida auris*, in particular, is a multidrug-resistant fungus that has emerged as a major global health threat recognized in the WHO priority list of fungal pathogens. It can cause outbreaks in healthcare settings and diagnosis of *C. auris* is particularly challenging hampering timely and adequate treatment.[4]

FungiScope® is an international retrospective registry collecting clinical cases of IC/C, with the primary objective of gathering comprehensive data on the epidemiology, risk factors, treatment, and outcomes of these infections.[5] This information can be instrumental in gaining a deeper insight into the current global management of such cases. Additionally, it can assist in the development and implementation of more effective prevention and treatment strategies or adherence to international management guidelines.[2]

Study Objectives:

- Collect anonymized patient courses with invasive *Candida* infection retrospectively
- Investigate long-term epidemiology of invasive *Candida* infection
- Assess the effectiveness of antifungal treatments in light of new approved antifungals on the market and with globally increasing resistance
- Promote scientific exchange

Patient Inclusion Criteria

Mandatory:

- Confirmed diagnosis of candidemia and/or invasive candidiasis
- Patient age 18 or older
- Three months follow-up (for survivors)
- Availability of medical records
- With the use of newly approved antifungal agents, patients treated with respective drugs must be reflected in the number of overall documented cases

Optional:

- Fungal isolates to be send to a national or regional central lab.

Study Duration and Region

Study Start: January 1, 2024
Study End: December 31, 2026
Region: initially Europe, USA

Your Participation is Important:

Only together can we contribute to improving the management of invasive *Candida* infections. We will collaboratively publish results in high-impact scientific journals. Participation will allow you to become part of our international research network and together guide healthcare professionals in making informed decisions for antifungal treatment, further improving patient outcomes globally.

How to participate

Participating sites will include any number of cases of candidemia or invasive candidiasis diagnosed between 2024 and 2026. Anonymized and retrospective clinical data are collected via an online questionnaire (www.clinicalsurveys.net, Questback, Germany, www.carelane.io, Carelane GmbH, Germany). A central documentation password-protected account will be provided by the FungiScope-Team. Cases entered by the site will be accessible by the respective site. A designated team of data scientists and infectious disease specialists will review the cases for completeness and validity.

The following core data set will be collected (anonymized, retrospective data entry):

1 Epidemiological data: country, institution, level of care of the institution, catchment area

2 Demographic data: age-group, sex, ethnicity

3 Data of fungal infection: year of infection, species identification, co-infections with other fungi, clinical characteristics upon diagnosis

4 Data of concomitant diseases: diagnosis, duration of disease, current status and treatment

5 Potential risk factors for developing fungal infection: immunosuppressive therapy, chemotherapy, biopharmaceuticals, use of corticosteroids, radiotherapy, solid organ or human stem cell transplantation, chronic pulmonary disease, diabetes mellitus, renal failure and dialysis, trauma and major surgery, HIV/AIDS, neutropenia, mucositis, and other risk factors

6 Antifungal prophylaxis, if given: drug, route, dose, duration prior to diagnosis of invasive fungal infection

7 Diagnostic measures and findings (CT, MRI, endoscopy, ultrasound, micro- and molecular biological analyses, pharmacological analyses)

8 Antifungal treatment: drug, route of administration, dose, drug levels, duration, details on adverse reactions including start and stop day, relation to the antifungal drug and measures taken where applicable, and treatment outcome

9 Treatment response at day 14, 28, 42, 84 and status at most recent follow-up

10 Cause of death, autopsy results if applicable

Informed consent

As of the ethical approval of the study, an informed consent is not required due to the retrospective and anonymized study design.

Authorship policy

Authorship will be available to every individual and center that is contributing clinical data or otherwise makes substantial contributions to the study. Authorship criteria adhere to established publication guidelines, such as those outlined by the International Committee of Medical Journal Editors (ICMJE). The order of authorship will reflect the level of contribution, ensuring transparency and recognition of collective efforts. FungiScope® is committed to promoting collaboration, maintaining academic integrity, and fair recognition for all contributors.

References

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