How to collaborate

Do you want to contribute an invasive fungal infection caused by rare yeasts or moulds case confirmed by culture, histology, microscopy or DNA evidence?

Contact us
Fungiscope@uk-koeln.de

↓ You will receive login data to access the online questionnaire

Document your case
Online Case Report Form
Retrospective, anonymized

↓
- Demographics
- Underlying conditions
- Diagnosis of fungal infection
- Treatment
- Response
- Outcome

Send us the fungal isolate
Species identification, susceptibility test

↓ Case Validation
with possible inquiries

Analyses and Joint publications

Invasive infection caused by e.g. *Acremonium, Alternaria, Cladosporium, Cryptococcus* other than *neoformans, Curvularia, Exophiala, Fusarium, Geotrichum, Lomentospora, Paecilomyces, Penicillium, Scedosporium, Trichosporon* species Non-*fumigatus Aspergillus* or any for specific projects, please contact us to identify where suitable, *Candida*----

FungiScope® is supported by Amplyx Pharmaceuticals, Basilea Pharmaceutica, Cidara, F2G Ltd., Gilead Sciences, Inc., Matinas BioPharma, Mundipharma GmbH

Publications

Results are presented at international conferences and published in a joint effort in peer-reviewed journals. [1-12]

[1-12] Rüping MJGT et al. J Antimicrob Chemother. 2010. Mucormycosis
Pagano L et al. Haematologica 2013. Mucormycosis
Nucci M Clin Microbiol Infect. 2014. Fusariosis
Marty FM et al. Lancet Infect Dis. 2016. Isavuconazole
Pana Z et al. BMC Infect Dis. 2016. Mucormycosis
Hassler A et al. Pedriat. Infect Dis J. 2016. Fusariosis
Durán Graeff L et al. Mycoses. 2017. Saprochaete and Geotrichum
Seidel D et al. Mycoses. 2017. FungiScope
Heimann S et al. J Hosp Infect. 2019 Mucormycosis
Seidel D et al. Crit Rev Microbiol. 2019. Scedosporium and Lomentospora
Salmanton-García J et al. JAC. 2019. Mucormycosis - Posaconazole new formulations
Stemler J et al. Mycoses. 2019. Rasamsonia

Team Cologne, Germany

University Hospital of Cologne ECMM Diamond Center of Excellence Oliver A. Cornely, MD, FIDSA FECMM
Oliver.Cornely@uk-koeln.de
Danila Seidel, PhD
Danila.Seidel@uk-koeln.de
Philipp Köhler, MD, FECMM
Sibylle C. Mellinghoff, MD
Jon Salmanton-García, MSc
Rosanne Sprute, MD
Jannik Stemler, MD
Hilmar Wisplinghoff, MD
J. Janne Vehreschild, MD, FECMM

FungiScope

Global Fungal Infection Registry
Established in 2003

Research on rare invasive fungal infections

DOI: 10.4126/FRL01-006430081

@FungiScope
www.fungiscope.net

FungiScope® History
Rare invasive yeast and mould infections

FungiScope® – Global Emerging Fungal Infection Registry was established in 2003 with the aim to improve knowledge on epidemiology, clinical manifestations and treatment strategies for invasive infections with so-called „emerging fungi". Today, collaborators from 82 countries have entered more than 1100 cases. We also provide diagnostic support, collect and identify clinical isolates and provide a search engine for the database (www.fungiquest.net).

FungiScope® provides

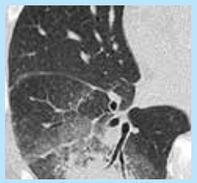
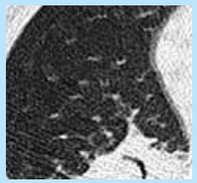
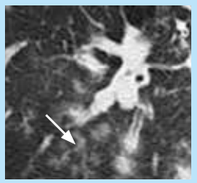
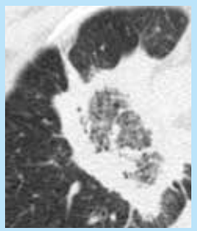
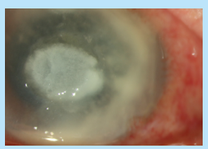
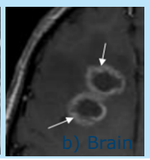
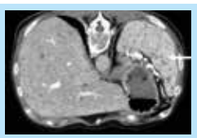
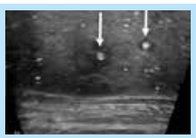
- Web-based registry via www.clinicalsurveys.net
- International scientific network for joint analyses
- Prior to sharaing of samples or data, approval of the contributors
- Authorship or contributorship, if cases are included in an analysis
- Compensation: € 100/valid case

ClinicalTrials.gov Identifier NCT01731353
Version 04-2020

Invasive mould infections

Any immunosuppressed, neutropenic, GvHD, steroid exposed patient is at risk

Biopsy (C+M+H+P), Blood culture (C), BAL (C+M+P), Aspirates (C+M+P), Sputum (C+M), CSF (C+M+P), Corneal scraping (C+M+P), Serology

Diagnosis	Radiological and clinical pictures often caused by invasive mould infection	Histopathology	Blood culture	Molecular tests	Serology	Dissemination (frequently affected organs)
Aspergillosis	Halo sign  Area of consolidation with crescent shaped airspace separating the mass from chest wall Area of consolidation (nodule or mass) surrounded by ground-glass opacity Air crescent sign  Tree-in-bud  Centrilobular nodules and linear branching opacities with or without bronchiectasis	Non-pigmented, septate hyphae (3-8 µm), regular acute-angle branching (45°)	Negative	*Aspergillus*-specific PCR Panfungal PCR	GM index (BAL, serum) ≥1.0/≥0.5 if repeatedly	Brain, eye, GI tract, heart, kidney, liver, lung, paranasal sinuses, skin, spleen
Mucormycosis	 Reversed halo sign Central ground-glass opacity surrounded by a crescent or ring shaped consolidation  Mandibular Skin manifestation Eschar Erythematous lesion with black necrotic centre	Non-pigmented, rarely septate hyphae (6-25 µm), irregular right-angle branching (>45-90°)	Negative	Mucorales-specific PCR Panfungal PCR	-	Bone, brain, deep soft tissue, eye, GI tract, kidney, liver, lung, paranasal sinuses, skin, spleen
Fusariosis	Skin manifestation  Cheek  Foot Violaceous or erythematous, flat, indurated plaques disseminated mainly on extremities	Non-pigmented, septate hyphae (3-8 µm), regular acute-angle branching	Positive in some cases of disseminated disease Prolonged incubation necessary!	Panfungal PCR	(1-3)-β-D-glucan↑	Blood, deep soft tissue, eye, liver, lung, paranasal sinuses, skin Blood and skin lesions!
Scedosporiosis	 Eye manifestation Photograph showing conjunctival congestion, corneal ulcer with anterior chamber hypopyon  a) Lung  b) Brain Lung and Brain manifestation a) Nodular lung consolidation* b) Multiple ring-enhancing lesions (arrows) with perifocal edema compatible with abscesses* *Not specific for scadesporosis	Non-pigmented, septate hyphae (2-5 µm), irregular acute-angle branching	Positive in some cases of disseminated disease Prolonged incubation necessary!	Panfungal PCR	(1-3)-β-D-glucan↑	Blood, bone, brain, deep soft tissue, eye, kidney, liver, lung, paranasal sinuses, skin
Candida	  Diagnostic Imaging for suspected hepatosplenic Candidiasis. (Left) Multiple hypodense nodular lesions on an abdominal CT of a probable hepatosplenic invasive candiasis. (Right) Multiple hypoechoic lesions with hyperechoic centres on ultrasound	???	???	???	???	???