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Original article

Diagnosis and management of *Aspergillus* diseases: executive summary of the 2017 ESCMID-ECMM-ERS guideline

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ABSTRACT

The European Society for Clinical Microbiology and Infectious Diseases, the European Confederation of Medical Mycology and the European Respiratory Society Joint Clinical Guidelines focus on diagnosis and management of aspergillosis. Of the numerous recommendations, a few are summarized here. Chest computed tomography as well as bronchoscopy with bronchoalveolar lavage (BAL) in patients with suspicion of pulmonary invasive aspergillosis (IA) are strongly recommended. For diagnosis, direct microscopy, preferably using optical brighteners, histopathology and culture are strongly recommended. Serum and BAL galactomannan measures are recommended as markers for the diagnosis of IA. PCR should be considered in conjunction with other diagnostic tests. Pathogen identification to species complex level is strongly recommended for all clinically relevant *Aspergillus* isolates; antifungal susceptibility testing should be performed in patients with invasive disease in regions with resistance found in contemporary surveillance programmes. Isavuconazole and voriconazole are the preferred agents for first-line treatment of pulmonary IA, whereas liposomal amphotericin B is moderately supported. Combinations of antifungals as primary treatment options are not recommended. Therapeutic drug monitoring is strongly recommended for patients receiving posaconazole suspension or any form of voriconazole for IA treatment, and in refractory disease, where a personalized approach considering reversal of predisposing factors, switching drug class and surgical intervention is also strongly recommended. Primary prophylaxis with posaconazole is strongly recommended in patients with acute myelogenous leukaemia or myelodysplastic syndrome receiving induction chemotherapy. Secondary prophylaxis is strongly recommended in high-risk patients. We strongly recommend treatment duration based on clinical improvement, degree of immunosuppression and response on imaging. **A.J. Ullmann, Clin Microbiol Infect 2018;■:1**

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Introduction

This is the third fungal diagnosis and management clinical guideline published in cooperation with various European scientific societies [1–9]. This part of the guideline regarding invasive and chronic aspergillosis is a condensation of all the recommendations

made by the guideline subcommittees and is presented in tables for easier and faster reading. More details on how the recommendations were arrived at are planned in supplementary publications. This *Aspergillus* guideline will follow the style of other guidelines by including diagnostic and therapeutic guidance. Other scientific groups have published guidelines on this topic previously and all

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