

Outbreak of *Microsporium audouinii* in Munich - the return of contagious fungi in German kindergartens
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Background: Following an unusually high number of *Microsporium (M.) audouinii* isolated from children with tinea at our hospital within only a few weeks, we began to investigate and control an outbreak of *M. audouinii* infections in Munich, Germany. The main goals of our health management were to treat infected persons, identify the extent, cause, and form of transmission and to prevent further spread of infection.

Methods: We analyzed data from structured interviews with the patients' families and evaluated mycological cultures of swabs taken of patients and of objects in involved public facilities. For the management of the outbreak we included systemic and topical treatment with antifungal medication, professional decontamination of affected facilities and the introduction of a temporary kindergarten ban for *M. audouinii* positive children by Munich's City Health Department as well as organization of educational meetings.

Results: Between March and August 2011, we identified and successfully treated 16 children and 4 adults with infections by *M. audouinii*. We could also establish that the index patient initially brought the fungus to Munich from a family vacation in Africa before it continuously spread to fellow kindergarten children and subsequently to family members of the newly infected children. It took 40 weeks causing considerable financial damage and individual tragedies until the epidemic could be fully evaluated and declared ceased after successful treatment.

Conclusions: Due to travelling and migration, growing numbers of *M. audouinii* infections will be seen in children and kindergartens in industrialized countries within the next years. Sufficient and sustainable solution strategies have to be developed by dermatologists and public health officials for the management of future outbreaks of *M. audouinii* and other highly contagious fungi.