

Besides drinking, consumers use potable water also for daily activities such as cooking, washing and personal hygiene. During these activities they are in constant contact with fungi and their metabolites directly with the skin while washing, the digestive system while drinking, and through the respiratory system by inhaling aqueous aerosols [3,4]. With increasing transitory and serious immune alterations among patients as well as an increase of azole-resistant fungal strains in recent years also a need for monitoring of fungi increased, not only in drinking water but also in relation to materials in contact with drinking water. References: [1] UN. Resolution adopted by the General Assembly on 28 July 2010 64/292. The human right to water and sanitation. United Nations: New York, USA, 2010; p. 3. [2] WHO. Guidelines for Drinking Water Quality, 4th ed.; World Health Organization: Geneva, Switzerland, 2011; p. 564. [3] Novak Babič, M., et al. Fungal Contaminants in Drinking Water Regulation? A Tale of Ecology, Exposure, Purification and Clinical Relevance. *Int. J. Environ. Res. Public Health* 2017, 14, 636. [5] DEFRA. A Review of Fungi in Drinking Water and the Implications for Human Health, 1st ed.; BIO Intelligence Service: Paris, France, 2011; p. 107.

S01.2

Hospital environment: water supply and containment of aerosolised fungal particles. How far must we go in times of antimicrobial resistance?

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Invasive fungal infections depend on the interplay between host susceptibility and environmental exposure. Therefore, hospital environment is one of the major concerns in the management of nosocomial fungal infections, especially in wards bearing immunocompromised patients. Particular attention should be paid to the environmental risks associated with water since fungi can be aerosolized at water taps and showers. This may lead to fungal exposure by inhaled and ingested droplets, or even by direct contact with mucosae. Studies report that filamentous fungi and yeasts are commonly found on water-pipe inner surfaces, even in the presence of free chlorine. Air levels of *Fusarium* and *Aspergillus* conidia were found to increase in hospital environments after running showers multiple times. Species of these two genera are described as the most frequently found in this setting due to their conidial dispersion mode, as well as their ability to form biofilms. Despite the intrinsic resistance found in some species of these two genera, fungal exposure to antifungal agents via medical or agricultural use of these compounds, appears to have a major impact on acquisition of resistance to azoles; namely in *Aspergillus fumigatus*. The isolation of this species in hospital water and water reservoirs is therefore an even bigger matter of concern. More recently, several reports on nosocomial outbreaks caused by *Candida auris* have been described. This species is resistant to several classes of antifungals and is associated with high mortality. Contamination of hospital environment or transient colonization of medical devices and equipment may display an important role in the transmission of this species. *C. auris* was already found in water samples and therefore this reservoir should not be excluded as possible source of infection. In conclusion, fungal counts and detection of potential pathogenic species in water were, until a few years ago, the major concern of clinical and scientific community towards the reduction of nosocomial fungal infections originating in water devices. The emergence of infections caused by fungal isolates with intrinsic or acquired antifungal resistance triggered new levels of alert in this field.

S01.5

Spectrum of indoor fungi isolated from indoor environments in Busia-Kenya

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