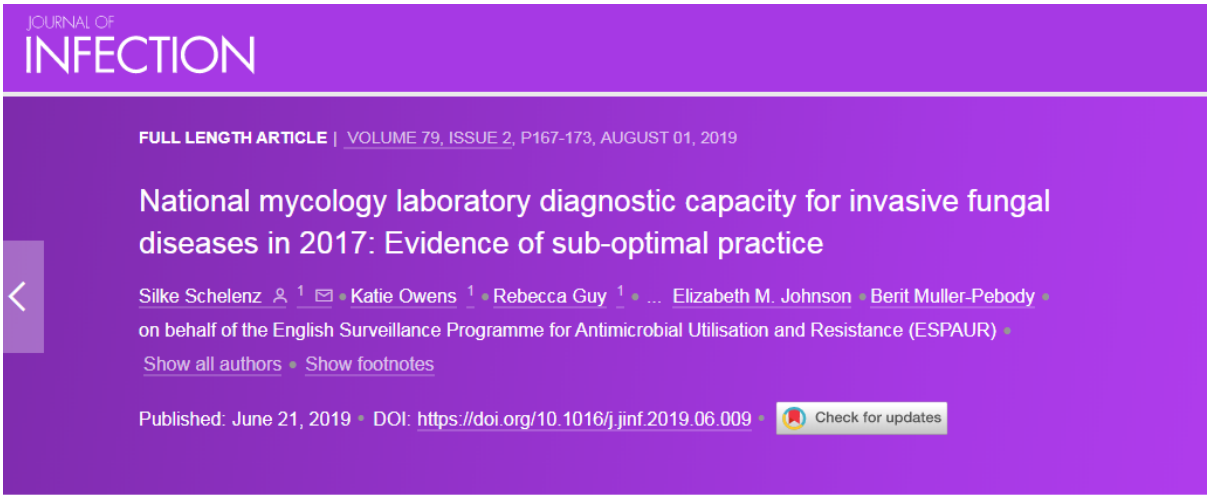

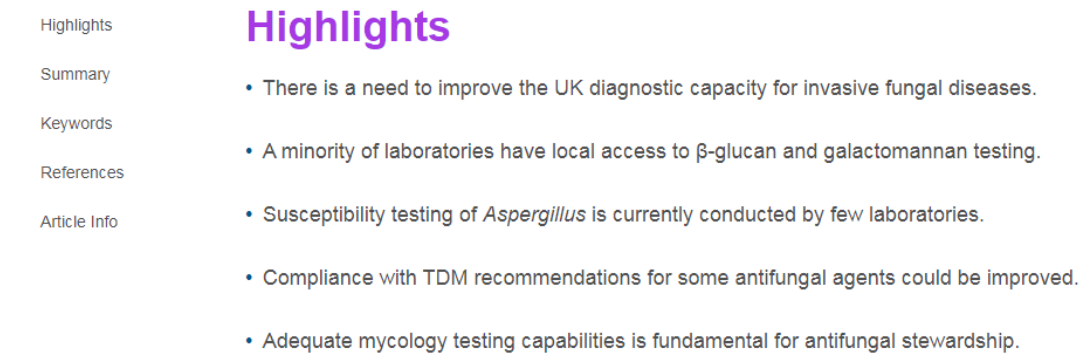

Summary

A survey of laboratory testing capabilities for systemic fungal pathogens was undertaken in the UK, to identify where improved compliance with published standards and guidelines is required and to inform antifungal stewardship (AFS).

The survey captured information from laboratories in the UK on diagnostic capacity for invasive fungal diseases (IFD), including identification, serology, molecular diagnostics and susceptibility testing. The survey was circulated in March 2017 through key networks.

Of 154 laboratories providing diagnostic mycology services in the UK, 80 (52%) responded to the survey. Results indicated that 85% of respondents identified fungal isolates from high risk patients to species level, and that many laboratories (78%) could access local susceptibility testing for yeasts, whereas 17% could for *Aspergillus* species. However, direct microscopy was only used in 49% as a first line investigation on samples where it would be appropriate. A low number of respondents identified yeasts cultured from intravascular line tips to species level (63%) and even fewer fully identified urine isolates from critically ill patients (42%) or the immunocompromised (39%). Less than half of respondents advised therapeutic drug monitoring (TDM) for flucytosine. Few laboratories had access to local β-glucan (4%) or galactomannan (20%) testing.

The survey highlights that the current level of fungal diagnostics in the UK is below accepted best practice with an urgent need to improve across many diagnostic areas including the timely accessibility of fungal biomarkers, susceptibility testing and provision of TDM testing. Improvements are important to facilitate the delivery of diagnostic driven AFS strategies as well as appropriate management of IFD.