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Letter to the editor

Beta-D-glucan assay as a tool for antifungal stewardship

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Implementation of antifungal stewardship (AFS) programs have the potential to reduce healthcare costs.[1] BDG assay has a high negative predictive value for invasive candidiasis (IC) and is thus an important tool for AFS.[2]

We conducted a study from January-December 2021 at a tertiary care hospital in Mumbai. A serum sample for BDG along with paired blood culture was sent for all patients before starting empirical echinocandin therapy. The BDG test was performed in house twice weekly using Fungitell®assay. The clinicians were advised to discontinue echinocandin if both BDG and cultures were negative. The patients in whom the echinocandin were stopped were monitored for IC during their hospital stay/day 28 whichever was earlier. The total cost saving was calculated considering an average of 10 day extra therapy with echinocandin and cost of the BDG test.

A total of 337 echinocandin prescriptions were made in 294 patients. BDG and blood cultures were sent before 292 of these prescriptions in 255 patients. The BDG as well as blood fungal cultures were negative in 53/292 prescriptions in 49 patients (15.7%). Compliance to recommendations for stopping echinocandin was 100%. None of these 49 patients had a sterile site culture positive for candida or deaths attributed to IC at end of follow up. Total cost savings were 6,794,440 INR during the study year as against the cost of BDG assay 27, 59,400 INR

Our small study adds to published literature on AFS.[3] Apart from cost saving this strategy also has the potential for reducing echinocandin resistance. Non availability of BDG in most laboratories and long turnaround times is a major limitation to wider use of this strategy.[4] Finally, in light of a recent report of a false negative rate of 15% of BDG in patients with IC suggests that de-escalation should be done carefully in BDG negative patients.[5]

Conflict of Interest

None.

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