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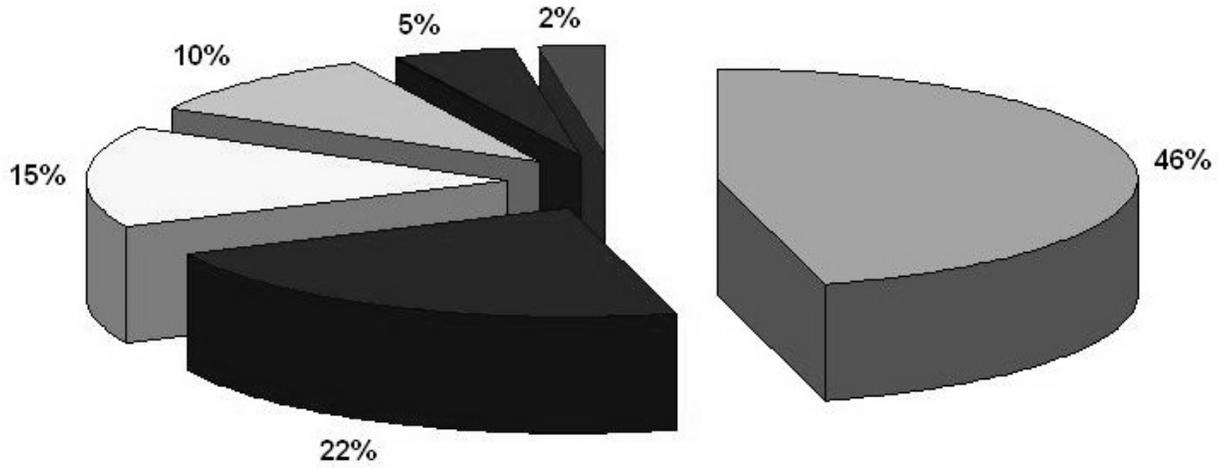
Abstract (poster session)

Fungi and finance - an innovative project at a district hospital in northwestern England for cost-effective management of candidaemia driving quality and efficiency

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Background: Candida blood stream infections[CBSI] are 4th commonest cause of BSI, and associated with high mortality and high potential costs of treatment. The incidence of CBSI in Europe is 0.20-0.38/1,000 hospital admissions and 0.31-0.44/10,000 patient days. Literature and recent clinical trials suggest candida BSI due to candida species other than albicans are increasing. The cost of newer antifungals[AF] can potentially erode limited drug budgets. We present an innovative project with potential for adoption at any district hospital. This included in-house candida identification[*CID*] and fluconazole susceptibility testing[FST], cost comparison of local in-house and outsourcing of *CID* and susceptibility testing, local epidemiology of CBSI over 10-years and economic modelling to enhance quality and efficiency of patient care and significant cost savings. Methods: Retrospective 10year review of pathology database for 272 CBSI [2000 - till date]; cost comparison and turn-around-time[TAT] of candida ID and FST [inhouse or outsourced]; cost comparison [BNF 2011] of various systemic antifungals and potential cost savings from in-house ID/FST based antifungal treatment [esp for germ tube negative candida]. Results: Key results from 272 CBSI over 10-years included *C. albicans*[*CAL*] was commonest[48.5%]; followed by 23.5% *C. glabrata*[*CGL*], 10.3% *C. parapsilosis*[*CPA*];5.1% *C. tropicalis*; and nil *C. krusei*. Incidence of *C. albicans* has remained flat in last 10years. Fully fluconazole sensitive candida species with the exception of 39% *C. glabrata*. Cost differential between in-house *CID*/FST incl staff time[£18.32] and outsourcing *CID*/ST against full panel[£93.73] for 272 CBSI candida is £20,511.52. Cost differential of systemic AF treatment per day/over 2-weeks ranges from £7.78/£108.92 for fluconazole 400mg IV and £483.45/£6768 for liposomal amphotericin 250mg IV. A potential of upto £932,272 cost differential in treatments of 140/272 germtube negative CBSI[inhouse v/s outsourced]. Details to be presented. Conclusions: In-house candida ID and FST is user friendly and easy to setup. MIC using E-test for fluconazole can be available within 24h. This has potential for early switch from expensive 2nd or 3rd line antifungals to fluconazole. Knowledge of local epidemiology for different clinical areas offers confidence in fluconazole use as 1st line even for germ tube negative candida. Details of economic modelling and epidemiological profiling to be presented.

Distribution of Candida species over 10-years



■ C. albicans ■ C. glabrata □ C. spp ■ C. parapsilosis ■ C. tropicalis ■ C. guilliermondii