

**P2247 Estimated burden of serious fungal infections in Namibia**Cara Mia Dunaiski<sup>1,1</sup>, David W. Denning<sup>2</sup><sup>1</sup> Namibia University of Science and Technology, Namibia, <sup>2</sup> The University of Manchester, Manchester, United Kingdom

**Background:** Namibia is a Sub-Saharan country with one of the highest HIV infection rates in the world. Although care and support services are available that cater for opportunistic infections related to HIV, the main focus is narrow and is predominantly aimed at tuberculosis.

**Materials/methods:** We aimed to estimate the burden of serious fungal infections in Namibia, currently unknown, based on the size of the population at risk and available epidemiological data. Data were obtained from the WHO, UNAIDS, and published reports. When no data existed, risk populations were used to estimate frequencies of fungal infections, using previously described methodology.

**Results:** The population of Namibia in 2011 was estimated at 2,490,000; 36% children. Amongst about 828,672 adult women, recurrent vulvovaginal candidiasis ( $\geq 4$  episodes /year) is estimated to occur in 37,390 (3,003/100,000 females). Using a low international average rate of 5/100,000, we estimated 125 cases of candidaemia, and 19 patients with intra-abdominal candidiasis. Amongst survivors of pulmonary tuberculosis (TB) in Namibia 2017, 456 new cases of chronic pulmonary aspergillosis (CPA) are likely, a prevalence of 1439 post-TB and a total prevalence estimate of 1,841 CPA patients in all. Asthma affects 11.2% of adults, 178,483, and so allergic bronchopulmonary aspergillosis (ABPA) and severe asthma with fungal sensitization (SAFS) were estimated in around 54/100,000 and 72/100,000 respectively. Invasive aspergillosis (IA) is estimated to affect 15 patients following leukaemia therapy, and an estimated 0.13% patients admitted to hospital with COPD (461) and 4% of HIV-related deaths (108), a total of 585 people. The total HIV-infected population is estimated at 200,000, with 32,371 not on antiretroviral therapy (ART). Amongst HIV-infected patients, 543 cases of cryptococcal meningitis and 836 cases of Pneumocystis pneumonia are estimated each year. Data are missing on tinea capitis, fungal keratitis and skin fungal NTDs such as mycetoma.

**Conclusions:** The present study indicates that 3% of the Namibian population is affected by fungal infections. Epidemiological studies are required to corroborate or amend these estimates.

**Keywords:** Namibia; HIV/AIDS; fungal infections; opportunistic infections; pulmonary infections

**Table 1.** Estimated burden of serious fungal infections in Namibia.

Infection	No underlying disease	Number of infections per underlying disorder per year				Total burden	Rate/100K
		HIV/AIDS	Respiratory	Cancer	ICU		
Cryptococcal meningitis		543				836	33.57
Pneumocystis pneumonia		836				836	33.57
Invasive aspergillosis		108	1	15	461	585	23.51
Chronic pulmonary aspergillosis-All			1,841			1,841	295.48
Allergic bronchopulmonary aspergillosis (ABPA)			1,351			1,351	54.24
Severe asthma with fungal sensitization (SAFS)			1,783			1,783	71.6
Candidaemia				87	37	125	5
Candida peritonitis					19	19	0.75
Oral candidiasis		6,660				6,660	267.47
Oesophageal candidiasis		9,861				9,861	396.04
Recurrent Candida vaginitis (>4x/year)	37,390					37,390	3,003.19
Mucormycosis				5		5	0.2
<b>Total serious fungal infection burden</b>						<b>60,456</b>	

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