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Serious fungal diseases in the Congo-Brazzaville

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Abstract

Background. Few data on serious and lethal fungal infections are available from the Republic of the Congo, despite a high HIV and TB burden and many cutaneous diseases. Here we estimate the burden of serious fungal infections in the Congo.

Methods. We searched for existing data and estimated the incidence and prevalence of fungal diseases based on the populations at risk and available epidemiological data. HIV data were derived from the Spectrum national database and the 2013 WHO TB report, as well as national and regional published reports. When no data existed, risk populations were used to estimate frequencies of fungal infections, using previously described methodology by LIFE.

Results. The population of Congo is ~4.37 million; 40% are children, and 9% are >65 years. Tinea capitis in children is common, but not directly measured; In the Cameroon, the prevalence was 8.1% (our estimate) and in Gabon, 23%. Recurrent vulvovaginal candidiasis (>4 episodes/year) is estimated to occur in 59,550 females. Among those 80,700 with HIV infection, an estimated 4,262, have oesophageal candidiasis, 454 develop PCP and 300 cryptococcal meningitis each year. An estimated 2,538 have CPA after pulmonary tuberculosis (17,000 survivors in 2012) 67% of the total burden. ABPA and SAFS were estimated in 72/100,000 and 95/100,000 respectively, in 125,000 adult asthmatics. An unknown number develop candidaemia and invasive aspergillosis. There are no incidence data on fungal keratitis, histoplasmosis and chromoblastomycosis.

Conclusions. The present study indicates that around to 5.0% (217,136) of the population is affected by a serious fungal infection, predominently tinea capitis in children and recurrent VVC in women. Epidemiological studies are required to validate and extend these estimates.

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Table1. Total burden of serious fungal infections in Congo

infection	Number of infections per underlying disorder per year					Total burden	Rate /100K
	None	HIV/AIDS	Respiratory	Cancer/Tx	ICU		
Oesophageal candidiasis	-	4,262	-	-	-	4,262	100
Candidaemia	-	-	-	153	66	218	5
Recurrent vaginal candidiasis (4x/year +)	59,550	-	-	-	-		2,727*
ABPA	-	-	3,139	-	-	3,139	72
SAFS	-	-	4,144			4,144	95
Chronic pulmonary aspergillosis	-	-	3,537	-	-	3,357	81
Invasive aspergillosis	-	?	-	26	?	26	0.6
Cryptococcal meningitis	-	304	-	-	-	304	7
Pneumocystis pneumonia	-	454	-	-	-	454	10.4
Tinea capitis	141,500	-	-	-	-	141,500	3,238
Total burden estimated	201,050	5,021	10,820	179	66	217,136	

Conclusions

The present study indicates that around to 5.0% (217,136) of the population is affected by a serious fungal infection, predominently tinea capitis in children and recurrent VVC in women. Epidemiological studies are required to validate and extend these estimates.