

Session: P071 Epidemiology of fungal infections II

**Category: 6a. Fungal disease epidemiology & clinical trials**

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## Estimation of the burden of serious mycoses in Cameroon

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**Background:** Cameroon is a Central African country with a population of ~22.25 million, of whom 40% are children. We have estimated the burden of fungal infections for the first time for the Cameroon.

**Material/methods:** Using published literature and population estimates for at risk group, we used deterministic modelling to derive national incidence and prevalence estimates, for the most serious fungal diseases.

**Results:** The largest burdens of infections were tinea capitis in children (8.1% rate) and recurrent vulvovaginal candidiasis in women 15-50 years. HIV infection is common and an estimated 120,000 have CD4 counts under 200, present with opportunistic infection. We assumed a rate of Pneumocystis pneumonia of 15%, cryptococcal meningitis of 11% and disseminated histoplasmosis of 3%. We assumed that esophageal candidiasis occurs in 20% of these patients and 5% of all HIV patients. Oral candidiasis in HIV is common (estimated at <100,000 cases) and one series found 21.5% of poorly controlled diabetics to have it as well. The prevalence of COPD is 2.4% and asthma in adults 2.65%. We assumed 25% of COPD patients are admitted to hospital and 2.5% of asthmatics develop ABPA. There are no data for candidaemia and we assumed 5/100,000. There are 2 prevalence estimates of tinea capitis in school age children, 8.1% and 61.5%, correlating to 720,900 or 5,473,500 affected. The incidence and prevalence estimates of fungal diseases are shown in the table. There are no data on fungal keratitis, chromoblastomycosis or mycetoma, and only 5 cases of mucormycosis (1basidobolus) found in histology. Overall, an estimated 1,235,775 people are affected by a serious fungal infection, 5.55% of the population.

**Conclusions:** Fungal infections are common in the Cameroon. They need addressing urgently as only fluconazole is registered and available in the country.

Infection	Number of infections per underlying disorder per year					Rate/100K	Total burden
	None	HIV /AIDS	Respiratory	Cancer /Tx	ICU		
Oesophageal candidiasis	-	43,300	-	-	-	193	43,000
Candidaemia	-	-	-	779	334	5.0	1113
Candida peritonitis	-	-	-	-	167	0.75	167
Recurrent vaginal candidiasis (4x/year +)	316,555	-	-	-	-	2,845	316,555
ABPA	-	-	8,844	-	-	40	8,844
SAFS	-	-	11,675	-	-	52	11,675
Chronic pulmonary aspergillosis	-	-	4,983	-	-	22	4,983
Invasive aspergillosis	-	-	-	134	1,041	5.3	1,175
Cryptococcal meningitis	-	6,720	-	-	-	30	6,720
Pneumocystis pneumonia	-	9,000	-	-	-	40	9,000
Histoplasmosis	?	3,600	?	?	?	16	3,600
Tinea capitis	720,900	-	-	-	-	3,240	720,900
<b>Total burden estimated</b>	<b>1,037,455</b>	<b>170,455</b>	<b>30,753</b>	<b>957</b>	<b>1,542</b>		<b>1,235,776</b>