

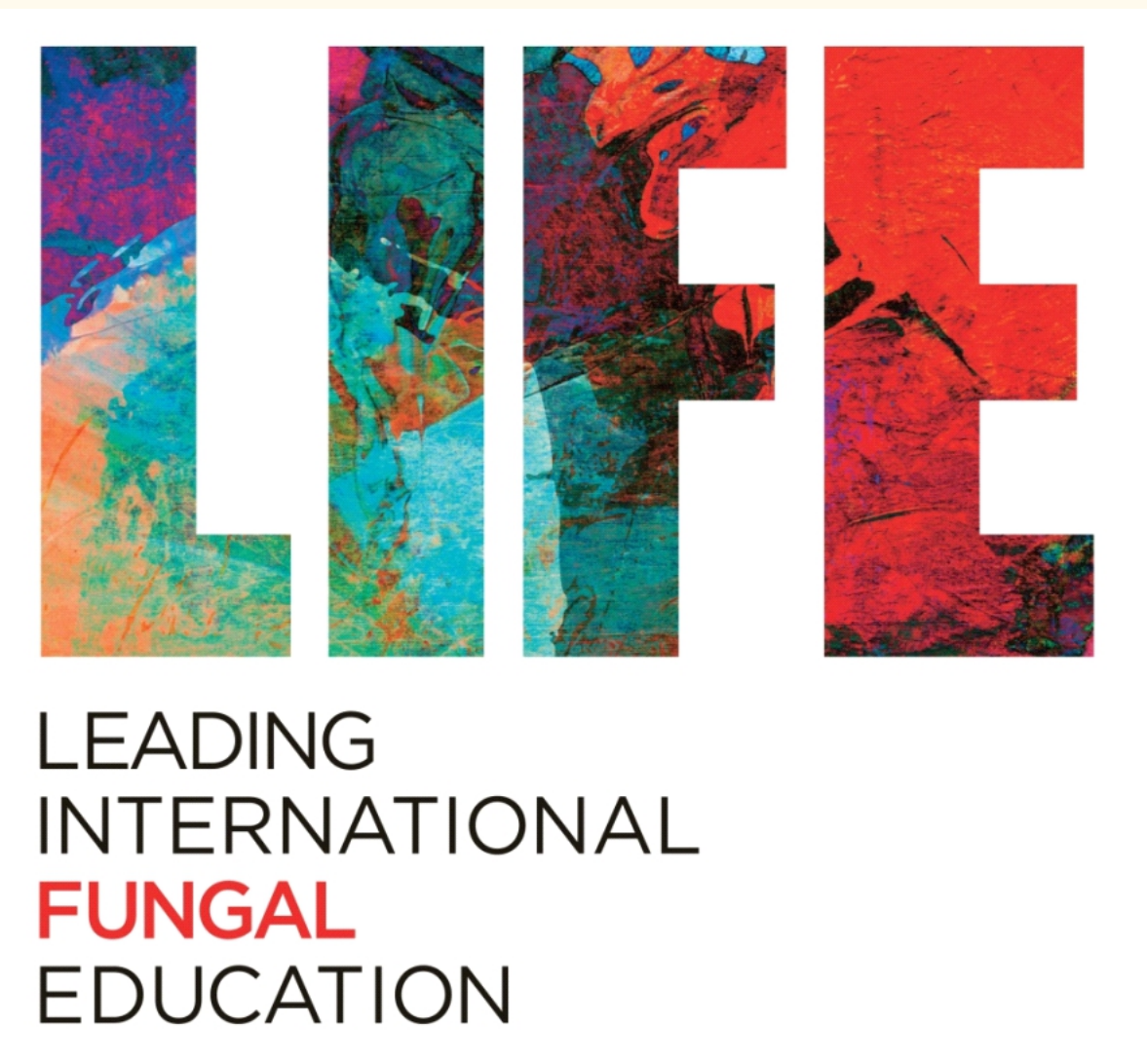


Estimation of the burden of serious mycoses in Cameroon

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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.

Methods

Using published literature and population estimates for at risk group, we used deterministic modelling to derive national incidencea and prevalence estimates, for the most serious fungal diseases.

Results

Table 1 shows the situation of fungal infections in Cameroon.

The largest burdens of infections were tinea capitis in children (8.1% rate) [1] 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 an annual rate of Pneumocystis pneumonia of 7.5%, cryptococcal meningitis of 11%, disseminated histoplasmosis of 3% [2-4] and esophageal candidiasis in 20% of these patients, and oesophageal candidiasis only in 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 [5]. The prevalence of COPD is 2.4% and asthma in adults 2.65%. We assumed 25% of COPD patients are admitted to hospital and

Table 1: situation of fungal infections in Cameroon.

Infection	Number of infections per underlying disorder per year					Rate/100 K	Total burden
	None	HIV/AIDS	Respiratory	Cancer/T x	ICU		
Oesophageal candidiasis	-	43,300	-	-	-	193	43,000
Candidaemia	-	-	-	779	334	5.0	1,113
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
Total burden estimated	1,037,455	170,455	30,753	957	1,542		1,235,776

2.5% of asthmatics develop ABPA. There are no data for candidaemia and we assumed 5/100,000. The estimates of the burden of infection is shown in the table. There are no data on fungal keratitis, chromoblastomycosis or mycetoma, and only 5 cases of mucormycosis (1 basidiobolus) found in histology. Overall, an estimated 1,235,775 people are affected by a serious fungal infection, 5.55% of the population.

Conclusion

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

Keywords: Pneumocystis, Cryptococcus, aspergillosis, candidiasis, hhistoplasmosis, Cameroon

Conflict of interest; none

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