



Introduction

Azerbaijan is in the South Caucasus region with the population of 9.8 M people and GDP per capita of 5,805 USD (Figure 1).

We have performed search on published papers of serious fungal infections. Where no published data existed, we used population at-risk to identify burden of serious fungal infections. Our estimations were based on the model developed by LIFE (Leading International Fungal Education).

Methods and results

There are 4,051,310 adult women (15-55 yrs) in Azerbaijan, so it was estimated that 176,961 women suffer from recurrent vulvovaginal candidiasis (rVVC) which is defined as => 4 episodes/year. There are 8,000 PLHIV which is most likely an underestimate; 54% of them do not receive antiretroviral therapy. Hence, we estimate 2,673 and 1,291 patients with oral and oesophageal candidiasis respectively. There are probably 25 cases of cryptococcal meningitis and 64 cases of Pneumocystis pneumonia annually which is likely to be an underestimate. We have estimated 902 cases of chronic pulmonary aspergillosis (CPA) as a sequel of TB and 2,707 cases of CPA complicating other conditions such as pneumothorax, emphysema, and sarcoidosis; which results in the total of 3,609 cases of CPA. Based on asthma prevalence there are approximately 4,188 patients with allergic bronchopulmonary aspergillosis (ABPA) and 5,528 with severe asthma with fungal sensitisation (SAFS). We used a low European rate to estimate invasive candidiasis cases and there are approximately 493 and 74 with candidemia and invasive candidiasis respectively. We have estimated approximately 111 patients with invasive aspergillosis and 20 patients with mucormycosis.

Infection	Number of infections per underlying disorder per year					Rate/100K	Total burden
	None	HIV/AIDS	Respiratory	Cancer/Tx	ICU		
Oesophageal candidiasis	-	1,291	-	-	-	13.0	1,291
Oral candidiasis	-	2,673	-	-	-	27.1	2,673
Candidemia	-	-	-	345	148	5.0	493
Candida peritonitis	-	-	-	-	74	0.8	67
Recurrent vaginal candidiasis (4x/year +)	176,961	-	-	-	-	3,588.75	176,961
ABPA	-	-	6,008	-	-	42.5	4,188
SAFS	-	-	7,930	-	-	56.0	5,528
Chronic pulmonary aspergillosis	-	-	3,609	-	-	36.8	36.8
Invasive aspergillosis	-	-	36	75	-	1.1	111
Cryptococcal meningitis	-	25	-	-	-	0.7	25
Pneumocystis pneumonia	-	64	-	-	-	0.2	64
Fungal keratitis	?	-	-	-	-	?	?
Tinea capitis	?	-	-	-	-	?	?
Total burden estimated	176,961	4,053	17,583	420	222		199,239



Figure 1. Geography of Azerbaijan

Conclusions

- We have estimated a total of 199,239 people (2% of the population) with serious fungal infection in Azerbaijan
- The awareness of fungal infections among healthcare professional remains low
- Diagnostics options are limited to culture-based methods
- Diagnostic improvements are necessary given this burden

References

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