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Abstract (poster session)

Burden of serious fungal infections in Austria

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Introduction: The number of fungal infections occurring each year in Austria is not known. We have estimated these based on populations at risk, supplemented with existing data. Methods: All published epidemiology papers reporting fungal infection rates from Austria were identified. We also extracted reported data from the International Classification of Diseases (ICD) from Ministry of Health as comparators. Where no data existed, we used specific populations at risk and fungal infection frequencies in those populations to estimate national incidence or prevalence, depending on the condition. Results: Of the 8.22M population, 14.5% are children (0-14 years) and 18% of population are >65 years old. We therefore estimate that 110,000 Austrian women get recurrent vaginal thrush (4+ times annually). 106 cases have been recorded in Tirol in 2011, a total of 1221 nationally. Of the 688 cases of pulmonary TB in 2011, 84% in HIV negative people, and that 25% of chronic pulmonary aspergillosis (CPA) cases are TB related we estimate a 5-year period prevalence of 382 CPA cases (assuming 15% annual mortality). Asthma prevalence in adults is 7% and assuming 2.5% of asthmatics have ABPA, 7,537 patients with ABPA are likely and 9,949 with severe asthma with fungal sensitisation (SAFS). Of the 15,000 estimated HIV positive patients, only 45 presented with AIDS in 2010 and 100% are taking ARVs. Only 5 cases of cryptococcal meningitis were identified and it is not possible to estimate the annual incidence of Pneumocystis pneumonia, or oesophageal candidiasis which is principally in non-AIDS patients. The rate of candidemia in Austria is low at 2.63/100,000 population consistent with 209 cases, although only 165 were actually documented. Candida peritonitis is estimated at 40% of the ICU candidaemia rate, based on French data. Most cases of oral and oesophageal candidiasis were probably in non-HIV infected people. Invasive aspergillosis in haematological and transplant patients is estimated at 96 cases [which contrasts with 158 from registry data (2007/8)] and 283 in COPD patients admitted to hospital. 28 mucormycosis and 2 histoplasmosis cases were recorded. Conclusion: Substantial uncertainty surrounds these estimates except for invasive aspergillosis figures in immunocompromised patients and candidaemia, where hospital-based surveillance studies have been done. Therefore, epidemiological studies are urgently required to validate or modify these estimates.

Infection	Number of infections per underlying disorder per year					Total burden	Rate /100K
	None	HIV/AIDS	Respiratory	Cancer/T x	ICU		
Oesophageal candidiasis	-	100	-	418	-	518	6.3
Oral candidiasis	?	100	100	503	?	703	8.6
Candidaemia	-	-	-	70	139	209	2.6
Candida peritonitis	-	-	-	-	56	70	0.9
Recurrent vaginal candidiasis (4x/year+)	110,000	-	-	-	-	110,000	2,616
ABPA	-	-	7,537	-	-	7,537	91.7
SAFS	-	-	9,949	-	-	9,949	121
Chronic pulmonary aspergillosis	-	-	382	-	-	382	4.7
Invasive aspergillosis	-	-	-	50	283	333	4.1
Mucormycosis	-	-	-	28	-	28	0.3
Cryptococcal meningitis	-	5	-	-	-	5	0.06
Pneumocystis pneumonia	-	?	?	?	-	?	-
Histoplasmosis	?	2	-	?	-	2	0.02
Fungal keratitis	?	-	-	-	-	-	-
Tinea capitis	1221	-	-	-	-	1221	14.9