



5th Conference on HIV Pathogenesis, Treatment and Prevention

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Poster Exhibition

B17 - Prophylaxis of HIV associated infections; vaccines e.g. pneumococcal, hepatitis and HPV, co-trimoxazole prophylaxis and IPT

MOPEB021 - Good tuberculosis treatment outcomes and no evidence of increased drug resistance in individuals previously exposed to isoniazid preventive therapy in a population with high HIV prevalence

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Background: Implementation of isoniazid preventive therapy (IPT) has been limited, partly due to concerns about promoting drug resistance. We investigated characteristics of TB cases in individuals who had previously received IPT as part of "Thibela TB", a cluster-randomised trial of community-wide IPT in gold miners in South Africa.

Methods: Participants who were dispensed IPT and attended >1 study visit were included. Disease episodes were detected through surveillance of TB episodes and through review of TB registers and case-notes for participants who stopped IPT early. Drug susceptibility was compared with TB episodes in those not exposed to IPT from Thibela control clusters.

Results: Among 149 cases, all male, after excluding 23 with only non-tuberculous mycobacteria, 126 remained. Median time from starting IPT to TB treatment was 316 days (IQR 174 - 491). 93 (74%) cases were first TB episode. Among 104 tested, 90 (86.5%) were HIV-positive, median CD4 196 cells/mm³ (n=45). Among 73 *M tuberculosis* culture-positive individuals, 66 had isoniazid and rifampicin susceptibility results with prevalence of isoniazid resistance similar to control (p=0.4 for first and p=0.25 for retreatment episodes)

	IPT (n=66)		Comparison (n=129)	
	First episodes, n=53 %(95% CI)	Retreatment episodes, n=13 %(95% CI)	First episodes, n=97 % (95% CI)	Retreatment episodes, n=32 %(95% CI)
Any isoniazid resistance	7 13.2%(5.5-25.3)	1 7.4%(1.9-36.0)	8 8.2%(3.6-15.6)	8 25.0%(11.5-43.4)
MDR	1 1.9%	1 7.7%	3 3.1%	4 12.5%

Conclusions: TB disease in individuals recently exposed to IPT has characteristics and outcomes similar to background. Prevalence of isoniazid resistance was not significantly different from control. Increase in prevalence (but not incidence) of isoniazid resistant cases is expected if IPT effectively reduces incidence of isoniazid-sensitive TB. Most cases were in HIV-positive individuals and may be due to recent infection since starting IPT.

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