

A Multijurisdictional Investigation of Resistant Highly Infectious TB in Asian Immigrants

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OBJECTIVES

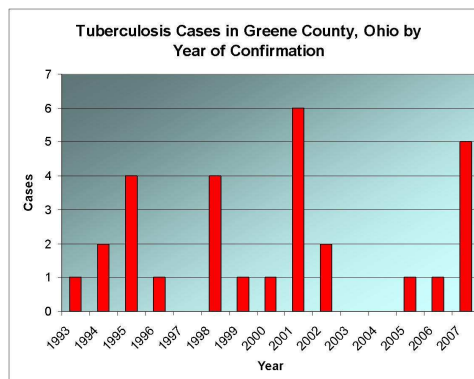
Learn about a highly infectious resistant tuberculosis outbreak among recent immigrants & the multijurisdictional public health response.

Recognize basics about tuberculosis & anticipate difficulties with immigrants and resistant strains.

Enhance epidemiologic response and treatment of tuberculosis that emerged across borders requiring coordinated response from employers, government, and individuals.

BACKGROUND & METHODS

In July 2007, a Vietnamese immigrant presented with hemoptysis and was placed in airborne isolation. The chest X-ray and computed tomography scan demonstrated abnormalities but no cavitary lesions. The AFB smear was negative, after follow up tests she was discharged. In late September 2007, the Greene County Health Department was notified that her bronchoscopy specimen was positive for *Mycobacterium tuberculosis*. She was started on a 4 drug regimen, isolated and directly observed therapy (DOT) was initiated. The strain was resistant to isoniazid and streptomycin; so isoniazid was stopped. Her isolation ended after 3 weeks of treatment with ongoing DOT. Her infectious period was over 6 months. 210 contacts were identified among: a dialysis clinic, hospital, close contacts, and work. 179 persons were skin tested, 16 met the criteria for latent TB infection (LTBI): All LTBI cases were close contacts (n=5) or work contacts (n=11).



RESULTS

In this investigation the odds ratio of foreign birth if diagnosed with LTBI was 391 (46 to 16410 Fishers Exact 95% Confidence Interval).

Table 1. Number of Persons Diagnosed and Treated for Latent TB Infection by Priority Groups After Exposure to Resistant *Mycobacterium tuberculosis*.

Area of Contact	Home County	Total	Received TST		Received LTBI Diagnosis		Received LTBI Treatment	
			No.	(%)	No.	(%)	No.	(%)
Dialysis Clinic	Greene	6	6	100%	1	17%	0	0%
Hospital	Greene	130	99	76%	0	0%	0	0%
Household and close social contacts	Greene	6	6	100%	5	83%	5	83%
Work	Butler	14	14	100%	0	0%	0	0%
	Greene	3	3	100%	1	33%	0	0%
	Montgomery	29	29	100%	8	28%	8	28%
	Shelby	2	2	100%	0	0%	0	0%
	Warren	20	20	100%	3	15%	3	15%

CONCLUSION

This investigation suggests that public health 'intervention and cross jurisdictional coordination' of resistant highly infectious TB is critical and that foreign birth may be of significant concern.

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