Contact tracing: A strategy to augment tuberculosis case detection

Sir,

The World Health Organization has acknowledged that tuberculosis (TB) is one of the deadliest infectious diseases worldwide. [1] The global estimates suggest that in the year 2013, almost 9 million people were diagnosed with TB and around 1.5 million succumbed to the disease and its associated complications. [1] As an effective approach [viz. Directly Observed Treatment and Short-course chemotherapy (DOTS)] is available for the disease, it is really unacceptable to digest that so many people die every year because of a preventable disease. [1,2]

However, the DOTS approach has not delivered encouraging results in some of the high prevalence settings.^[2] Contact tracing remains guite an effective approach which can play a significant role in reducing the number of new cases, provided it is implemented in combination with other strategies.[3] It is very important to realize that because of the resource constraints (health workers, monetary support, etc.), passive case finding has been adopted in most of the low- and middle-income nations; nevertheless, contact tracing (viz. active case search) still remains a potential strategy. [2,4] Employment of contact tracing enables health professionals to detect cases of TB without any unnecessary delay (viz. patient delay or health system related delay) and facilitates quick initiation of treatment so that the subsequent chain of transmission can be interrupted. [4] Confirmatory evidences are available to reflect the utility of contact tracing in augmenting diagnosis of both pulmonary and non-pulmonary TB, early detection of drug-resistant form of TB, and in exhausting the reservoir of the disease by preventing reactivation.[2,4]

In the global fight against TB, the practical implementation of contact tracing is determined by obligation for the same, tracing of contacts, extent of closeness to the infectious case, duration of exposure, tools available, and presence of other potential risk factors. ^[2,5] In addition, other constraints like the process being time consuming, execution by the overburdened health care professionals, and inefficiencies in data collection/ storage/retrieval further limit the universal application of contact tracing. ^[5] Most of these limitations can be addressed by conducting home and workplace visits instead of interviews, as it augments the detection of more number of at-risk contacts, ^[6]

and by employing mobile health applications to promote digitalization and easy retrieval of data. [5]

In conclusion, the adoption of the strategy of contact tracing can significantly supplement the other preventive and control measures aimed to reduce the caseload and associated deaths on a global scale.

Saurabh R. Shrivastava, Prateek S. Shrivastava,

Jegadeesh Ramasamy

Department of Community Medicine, Shri Sathya Sai Medical

College and Research Institute, Ammapettai,

Chennai, Tamil Nadu, India

Address for correspondence: Dr. Saurabh R. Shrivastava, 3rd Floor, Department of Community Medicine, Shri Sathya Sai Medical College and Research Institute, Ammapettai Village, Thiruporur–Guduvancherry Main Road, Sembakkam Post, Kancheepuram - 603 108, Tamil Nadu, India. E-mail: drshrishri2008@gmail.com

REFERENCES

- World Health Organization. Global Tuberculosis Control Report 2014. Geneva: WHO Press; 2014.
- Begun M, Newall AT, Marks GB, Wood JG. Contact tracing of tuberculosis: A systematic review of transmission modelling studies. PLoS One 2013;8:e72470.
- 3. Kasaie P, Andrews JR, Kelton WD, Dowdy DW. Timing of tuberculosis transmission and the impact of household contact tracing. An agent-based simulation model. Am J Respir Crit Care Med 2014;189:845-52.
- Jurcev Savicevic A. Five "W" in tuberculosis contact tracing: Why, when, who, where, and what? Lijec Vjesn 2011;133:65-8.
- 5. Ha YP, Littman-Quinn R, Antwi C, Seropola G, Green RS, Tesfalul MA, *et al.* A mobile health approach to tuberculosis contact tracing in resource-limited settings. Stud Health Technol Inform 2013;192:1188.
- 6. Duarte R, Neto M, Carvalho A, Barros H. Improving tuberculosis contact tracing: The role of evaluations in the home and workplace. Int J Tuberc Lung Dis 2012;16:55-9.

Access this article online	
Quick Response Code:	
	Website: www.ijnmrjournal.net
	DOI: 10.4103/1735-9066.164505