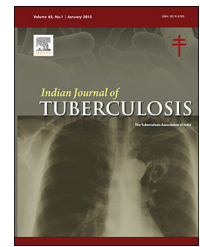


Available online at www.sciencedirect.com

ScienceDirect

journal homepage: <http://www.journals.elsevier.com/indian-journal-of-tuberculosis/>

Original article

Awareness of health care workers, patients and visitors regarding air borne infection control – A descriptive study from a Tertiary Care Centre in Kerala, southern India

P.T. James^a, Akhilesh Kunoor^b, P.S. Rakesh^{c,*}^a Professor and HOD, Department of Pulmonary Medicine, Amrita Institute of Medical Science, Amrita University, Kochi, India^b Assistant Professor, Department of Pulmonary Medicine, Amrita Institute of Medical Science, Amrita University, Kochi, India^c Assistant Professor, Department of Community Medicine, Amrita Institute of Medical Science, Amrita University, Kochi, India

ARTICLE INFO

Article history:

Received 11 March 2017

Accepted 31 August 2017

Available online xxx

Keywords:

Airborne infections

Health care staff

Sputum collection

Handwashing

Tuberculosis

ABSTRACT

Airborne infections are major public health concern especially in hospitals and public spaces in a highly populated country like India. Generating awareness about good infection control practices among common man and health care workers are important steps in curtailing transmission of air borne infections. In this study we were trying to assess the awareness of airborne infection control measures among patients, bystanders and healthcare workers in a tertiary care hospital at Kochi, Kerala. Self-administered questionnaire which included 10 questions for health care staff and 12 questions for lay men prepared on the basis of NAIC and NCDC guideline were given to the study participants. 143 health care staff and 332 laymen were participated in the study. In both groups majority of the responses were correct. However, only a small proportion of health care staff correctly answered fast tracking of a patient with TB (14.7%) and minimum air exchanges in air-conditioned settings (15.4%). Among laymen only a few correctly identified ideal place for sputum collection (43.3%) and role of hand washing in preventing flu (36.4%). Overall more intervention needed in improving awareness about good infection control practices among both health care staff and laymen.

© 2017 Tuberculosis Association of India. Published by Elsevier B.V. All rights reserved.

1. Background

Airborne transmission of infectious disease is a major public health concern. Exposure of human beings to different airborne pathogens has resulted in the emergence of epidemics of respiratory infections. Most of the microorganisms released from infectious patients can disperse in a wide geographical area by air currents and finally can be inhaled by

susceptible individuals who have had no direct contact with the primary source. Increasing transmission of TB among household contacts and global spread of Influenza A H1N1 has highlighted the need for air borne infection control precautions at all levels from health care setting to households.

This airborne transmission becomes more prevalent in healthcare settings because of overburdened hospitals and the presence of immune suppressed patients.^{1,2} All health facilities are visited by patients with TB and other air borne diseases

* Corresponding author. Tel.: +91 9495537333.

E-mail address: rakeshrenjini@gmail.com (P.S. Rakesh).<http://dx.doi.org/10.1016/j.ijtb.2017.08.028>

0019-5707/© 2017 Tuberculosis Association of India. Published by Elsevier B.V. All rights reserved.

Table 1 – Characteristics of the health workers participated in the study.

Characteristics	Categories	Number	Percentage
Category of staff	Doctors	22	15.38%
	Nurses	66	46.15%
	Nursing attenders	14	9.79%
	Laboratory staff	21	14.68%
	RT/MRT technicians	09	6.29%
	Others/not specified	11	7.69%
Years of experience	Less than one year	16	11.18%
	1–3 years	28	19.58%
	3–5 years	38	26.57%
	5–10 years	34	23.77%
	More than 10 years	27	18.88%
Department	Pulmonology	19	13.29%
	General medicine	24	16.78%
	Microbiology	18	12.59%
	ENT	11	7.69%
	Obstetrics & gynaecology	10	6.99%
	Medical ICU	13	9.09%
	Infection control	10	6.99%
	Surgical specialties	17	11.89%
	Others	21	14.69%

for diagnosis and cure. Inadequate or absence of infection-control guidelines in hospitals has resulted in acquisition of infections among health care workers, nosocomial transmission of infections among patients admitted for some other reasons and their bystanders, especially immune compromised patients.^{3–5}

National Guidelines on Airborne Infection Control in Health Care and other settings in India (NAIC) was released in 2010 to reduce the risk of airborne infections in health care facilities.⁶ Lack of awareness and inconsistent application of infection control guidelines contribute to the risk of transmission of air borne infections in hospitals. Also generating awareness among common man is an important step in curtailing transmission of air borne infections in hospitals and community.

Amrita Institute of Medical Sciences (AIMS), Kochi, Kerala is a tertiary care teaching hospital with 2500 beds. AIMS has received many awards for strengthening patient safety through an effective Antibiotic Stewardship Program, infection prevention and control practices.⁷ Air Borne Infection Control guidelines has also been implemented and monitored regularly. Hospital Infection Control committee meets every monthly and recently a checklist for AIC has also been incorporated. Risk assessments help identify strengths, weaknesses, and opportunities for improvement. The current study was done with the objectives to identify the gaps in awareness among health care workers, patients and bystanders regarding air bone infection control in AIMS.

2. Materials and methods

Two questionnaires were developed-one for health workers and another for patients and bystanders. The questionnaire was developed based on NAIC guidelines. The questionnaire for health workers included 10 questions including six hypothetical scenarios. The questionnaire for patients and bystanders included 10 questions including four hypothetical

scenarios and four agree/disagree questions based on NAIC and National Centre for Disease Control guidelines in this regard. Content validity for the questionnaire was checked by two experts in the field. The questionnaires were also translated to regional language and back translated to check for consistence. Questionnaires in both languages were pilot tested before use. Sample questions included in the questionnaires were given in [Box 1](#).

The unlinked anonymous and self-administered questionnaire in both languages was distributed among the hospital staff, patients and bystanders of selected departments with a request to fill and return. It took approximately 10–15 min to fill the questionnaire.

Ethical clearance for this study was obtained from Institutional Ethics Committee. The data was entered in Microsoft Excel. Descriptive analysis was done calculating frequencies and percentages.

3. Results

A total of 143 questionnaires from healthcare workers were included in the final analysis. Characteristics of health care workers participated in the study are shown in [Table 1](#). Majority of the participants (46.15%) were staff nurses. All but one of the study participants agreed that health workers are at increased risk of developing air borne infections. Majority of the responses were correct for questions like identifying place with lowest risk for air borne infection control (89.5%), precautions to be taken inside ICU for preventing H1N1 (88.8%), indications for wearing N95masks (79.7%) and advice on disposing sputum of a patient with TB (78.3%). However, it was evident that only a small proportion of workers know about fast tracking of a patient with TB (14.7%) and minimum air exchanges in air-conditioned settings (15.4%). The responses were presented as graph in [Fig. 1](#).

A total of 332 questionnaires filled by patients and bystanders were analysed. 87% knew about cough etiquette,

Download English Version:

<https://daneshyari.com/en/article/8745816>

Download Persian Version:

<https://daneshyari.com/article/8745816>

[Daneshyari.com](https://daneshyari.com)