



Tuberculosis Infection Control Practice of General Practitioners (GPs) in Myanmar Medical Association Public Private Mix (MMA PPM) Clinics In Myanmar: Provider Perspective.



Introduction

Among 22 highest TB burden countries, Myanmar is facing with the emergence of MDR-TB and XDR-TB with double trouble TB HIV challenges and as a consequences, health care providers are struggling with challenging TB infection control which aimed at minimizing the risk of TB transmission within populations. The foundation of infection control is early and rapid diagnosis, and proper management of TB patients. There are three infection control measures to prevent the transmission of TB in health care facilities: (1) Administrative control measures, (2) Environmental control measures such as natural and mechanical ventilation, lighting and (3) Personal protective measure such as respirators, face masks. Currently, MMA PPM TB is giving only brief information on TB infection control practice of GPs during trainings and no particular trainings is established on this issue. Moreover, there is no study defining tuberculosis infection control practice (TB IC) of GPs in Myanmar. This study is expected towards reduction of TB transmission among health care providers in Myanmar.

General objective

To assess TB infection control practice of GPs in MMA PPM DOTS implementing clinics in Myanmar.

Specific Objectives

1. To describe general characteristic of MMA PPM GPs.
2. To determine the current infection control practice (administrative, environmental and personal control measures) of MMA PPM GPs.
3. To explore factors influencing TB Infection control among MMA PPM GPs.
4. To assess natural ventilation by measuring air change per hour (ACH) in MMA PPM implementing GP clinics.

Methodology

Both quantitative data collection method using observation checklist and face to face interview by structured questionnaires and qualitative method using in-depth interview in Yangon Region, Mandalay Region, Shan State and Mon State was carried out to assess current TB infection control practice among 246 randomly selected GPs implementing MMA PPM TB (Myanmar Medical Association, Public Private Mix) project.

Result

Table 1. Distribution of background characteristic of MMA PPM GPs

Background characteristic of MMA PPM GPs	Number (N=251)	(%)
Type of GPs		
Scheme I	157	63%
Scheme III	94	37%
Age		
Under 60	169	67.3%
60 and above	82	32.7%
Mean	53	
SD	23-79	
Gender		
Male	161	64%
Female	90	36%
Highest education		
MBBS	138	55%
MBBS + Certificate	62	25%
MBBS + Diploma	32	13%
MBBS + Master	13	5%
Type of GPs		
Individual	216	86%
Group	35	14%
Attached with home		
Yes	110	44%
No	141	56%

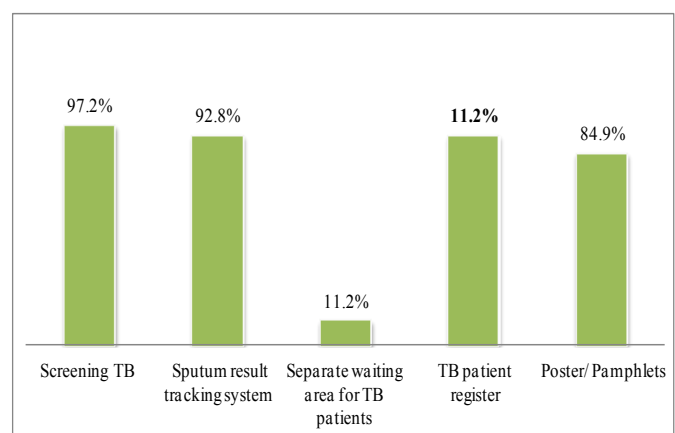


Figure 1. Observation of MMA PPM GP Clinics by administrative measures

Major Finding

Administrative Measures

Separate waiting area

- Knowledge score: 83% (n=208)
- On Practice: 15.10% (n=38)
- On Observation: 11.2% (n=28)

Screening for every patients with sign and symptoms of TB

- On Observation: 97.2% (n=244)
- Positive attitude: 66.7% (n=167)

HE for sign and symptoms of TB on practice: 78% (n=196)

HE on cough hygiene by GPs on practice: 55% (n=138)

Prioritizing TB patients on practice: 55% (n=138)

VCCT of TB patients

- Negative attitude: 21.5% (n=54)

Environmental Measures

Observation

- Standard ceiling height: 32.7% (n=82)
- cross ventilation: 62.9% (n=158)
- two windows opens both side of the wall (unrestricted air flow): 42.2% (n=106)
- one window open (restricted air flow): 52.2% (n=131)
- standard ceiling height: 32.7% (n=82)

Regular Practice

- Opening doors: 74.1% (n=186)
- Using Fan is in place: 62.5% (n=157)

Number of windows

- No and One window: 35% (n=88)
- Two windows: 40% (n=100)
- More than two windows: 25%(n=64)

Air change per hour (ACH): less than one third <12ACH

Personal protective Measures

Regular practice

- PPE – protection by N95: 11.2% (n=28)
- Wearing surgical mask by GPs : 31.1% (n=78)
- Offering surgical mask to TB patients: 29.1% (n=73)

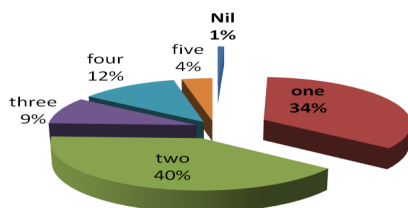


Figure 2. Number of windows at MMA PPM Clinics

Figure 3. Distribution of MMA PPM GP Clinics by Air change per Hour (ACH)

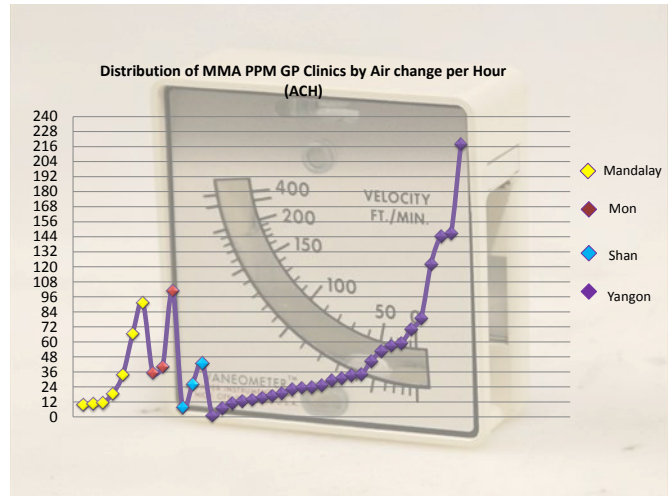


Table 2. Distribution of regular practice of MMA PPM GPs by infection control measures

*Regular Practice (N=251)	(n)	(%)
Administrative measures		
Early separation	38	15.10%
Display of IEC for cough etiquette	183	72.90%
Prioritizing TB patients	137	54.60%
Patients are crowded	9	3.60%
Environmental measures		
Open doors	186	74.10%
Fan is in place	157	62.50%
Personal Protective measures		
Wearing a surgical mask	78	31.10%
Wearing an N95	28	11.20%
Offering surgical masks	73	29.10%
HE for cough hygiene	138	55.00%
HE for the signs/symptoms of TB	196	78.10%

*Regular Practice means respondents who answered "always" and scoring 5.

Recommendation

1. To strengthen training on TB infection control among GPs.
2. To enhance administrative control measures by encouraging to set up separate waiting areas for TB patients.
3. To promote provision of adequate supply of N95 masks for those who are close contact with MDR TB patients.
4. To provide technical , information, logistic and programmatic support to GPs in case of preparation and renovation of GP clinic space to be in line with TB IC guidelines