

Toolkit for delivering the 5A's and 5R's  
brief tobacco interventions to TB patients  
**in primary care**

#### **WHO Library Cataloguing-in-Publication Data**

Toolkit for delivering the 5A's and 5R's brief tobacco interventions to TB patients in primary care.

1.Smoking – adverse effects. 2.Smoking Cessation - methods. 3.Tuberculosis, Pulmonary - complications. 4.Tuberculosis, Pulmonary – prevention and control. 5.Tobacco Use Disorder. 6.Practice Guideline. 7.Delivery of Health Care. I.World Health Organization.

ISBN 978 92 4 150694 6 (print)

(NLM classification: WM 290)

ISBN 978 92 4 069260 2 (ePUB)

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# Introduction

This toolkit was developed based on WHO Capacity Building Training Package 4 entitled “Strengthening health systems for treating tobacco dependence in primary care” and A WHO/The Union Monograph on TB and tobacco control: joining efforts to control two related global epidemics. Its target audience are TB care providers. It aims to serve as a quick reference guide to help TB care providers deliver brief tobacco interventions as part of their routine practice in primary care. The content of this toolkit includes:

1. Tuberculosis and tobacco use: a deadly combination;
2. The unique role of the TB care provider in tobacco control;
3. Basics of tobacco use and tobacco dependence;
4. The 5A's model to help patients ready to quit;
5. The 5R's model to increase motivation to quit;
6. The 5A's to avoid exposure to secondhand smoke.

# I. Tuberculosis and tobacco use:

## A deadly combination

There are confirmed associations between tobacco use and tuberculosis (TB) outcomes, in that active and passive exposure to tobacco smoke is significantly associated with TB infection, disease, recurrent TB and TB mortality (Table 1). It was estimated that 23% of TB cases in 22 high-burden TB countries could be attributable to active smoking.

Table 1: Associations between tobacco use and tuberculosis

Exposure to tobacco	Outcome	Range of odds ratios
Active	TB infection	1.03-3.20
	TB disease	1.01-6.30
	Recurrent TB	2.50-3.00
	TB-related death	1.10-1.60
Passive	TB infection	1.03-3.20
	TB disease	1.60-9.30

Therefore, opportunities must be created within the health care system to support every TB patient who is a smoker to quit smoking; every TB patient who is not a smoker to avoid exposure to secondhand smoke. By doing so your patients can significantly improve their TB treatment outcomes and avoid the likelihood of recurrent TB and 1 in 5 TB-related deaths.

## II. The unique role of the TB care provider in tobacco control

Health professionals have several roles to play in comprehensive tobacco control efforts, including role model, clinician, educator, scientist, leader, opinion-builder, and alliance builder. As a TB care provider, you should at least:

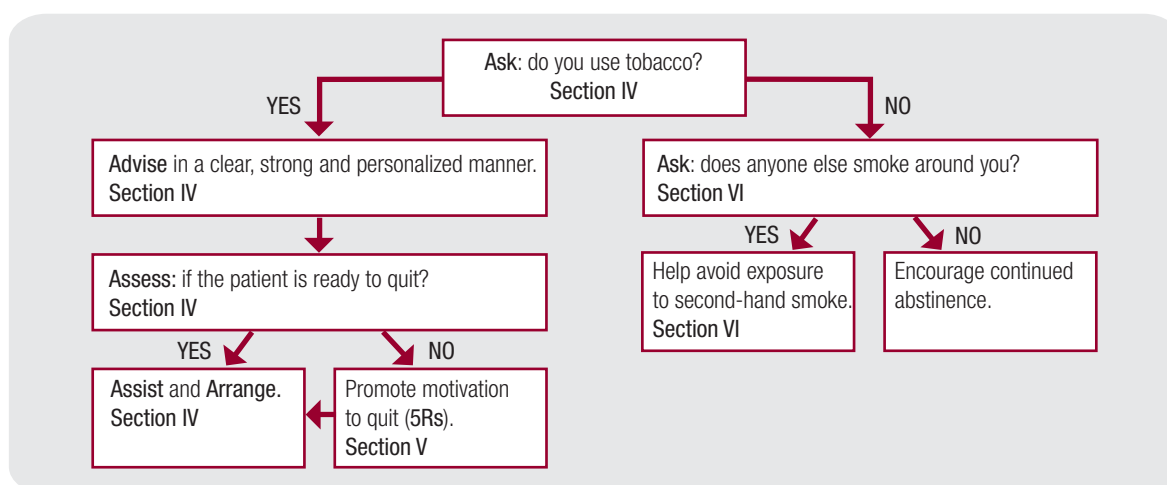
- Serves as tobacco-free role models for the TB patients;
- Address tobacco dependence as part of your standard of care practice;
- Assess exposure to secondhand smoke and provide information about avoiding all exposure.

**TB care providers are in the unique position in helping smokers.** Patients undergoing TB treatment under the directly observed therapy, short-course (DOTS) are typically in regular contact with the TB care providers for a minimum of six months. At every encounter with their clients or patients, TB care providers have a unique opportunity to deliver tobacco cessation interventions. By the end of 2007 DOTS programme was being applied in more than 180 countries covering 94% of the world's population. If all TB care providers routinely ask about tobacco smoking and advise smokers to stop, they have the potential to reach more than one million smokers in a single year worldwide through the DOTS programme (About 5.8 million new and relapse TB cases notified under DOTS in 2011; Even if only 20% of them smoke tobacco, the DOTS programme could reach more than one million smokers per year).

Another wide-reach Stop TB Strategy is the Practical Approach to Lung Health (PAL), which has the potential to reach 20%-35% of patients in primary care settings.

Helping TB patients quit smoking as part of TB care providers' routine practice takes them only three to five minutes and is feasible, effective and efficient. TB care providers can at least trigger 40% of cases to make a quit attempt; and help up to 67% of those receiving brief advice quit successfully at the end of TB treatment. The algorithm below can guide you to deliver the 5A's and 5R's brief tobacco interventions to TB patients in primary care (Figure 1).

Figure 1. Algorithm for delivering brief tobacco interventions



All TB care providers should also promote smoke-free policies, particularly where TB services are delivered so that your patients will not be exposed to secondhand smoke in your health facilities. By having a smoke free facility, you can encourage your patients to live in a smoke free home and work in a smoke free workplace, which will help them avoid exposure to secondhand smoke.

# III. Basics of tobacco use and tobacco dependence

In order to assist TB patients in quitting more effectively, every TB care provider should have some basic knowledge of tobacco use and tobacco dependence – such as the impact of tobacco use; the benefits of quitting tobacco use; and why people smoke and do not quit. The following information on the risk of tobacco use, the benefits of quitting, the three challenges in quitting tobacco and effective coping skills will help you deliver brief tobacco interventions.

## i. THE IMPACT OF TOBACCO USE ON TOBACCO USERS AND OTHERS

For those TB patients who still do not feel that they should quit smoking it is important to go over the risks that are involved. Tobacco use will have both health and non-health impacts on tobacco users and others.

### HEALTH IMPACT

This includes health risks to tobacco users and their family.

Tobacco kills up to half of its users because tobacco products are made of extremely toxic materials. Tobacco smoke contains more than 7000 chemicals, of which at least 250 are known to be harmful and at least 69 are known to cause cancer. All tobacco products are harmful. Tobacco smoking can damage every part of the body, causing many actual medical conditions such as shortness of breath, exacerbation of asthma and respiratory infections as well as many chronic diseases including heart disease, strokes, cancer, chronic respiratory diseases and TB.

As a smoker with TB, the combination of the two greatly increases TB patients' health risks:

- Smoking increases the severity of their TB symptoms. Smokers with TB are more likely to have:
  - Cough
  - Dyspnea
  - Cavitory lesions in the lung
  - Positive sputum culture (this means that smokers are more likely to spread TB as well)
  - Drug resistance
- Smoking will significantly increase their probability of having recurrent TB
- Smoking greatly increases their chance of dying from TB

Smoking puts the smoker's family at risk. Secondhand smoke exposure increases the risks of having the following diseases:

Diseases in children	Diseases in adults
<ul style="list-style-type: none"><li>– sudden infant death syndrome;</li><li>– acute respiratory illnesses;</li><li>– middle ear disease;</li><li>– chronic respiratory symptoms.</li></ul>	<ul style="list-style-type: none"><li>– coronary heart disease;</li><li>– nasal irritation;</li><li>– lung cancer;</li><li>– reproductive effects in women (low birth weight).</li></ul>

Exposure to secondhand smoke will also significantly increase the risks of having TB infection and TB disease for TB patients' family.

You will need to be prepared to help patients debunk misconceptions about health risks of smoking. Many smokers, especially those in developing countries, do not completely understand the dangers of tobacco smoking due to tobacco companies' misleading data that distort the true things about smoking.

## ECONOMIC IMPACT OF TOBACCO USE

Tobacco smoking takes away not just the smoker's health but wealth. It is estimated that 5-15% of a smoker's disposable income is spent on tobacco, which could be an enormous economic burden on them and their family. You can use the cost calculator below to help patients find out how much money they have spent on cigarettes.

The smoking cost calculator						
Number of packs you smoke a year*	X	Number of years you have smoked	X	The average cigarette pack price	=	How much you have spent on cigarettes during your lifetime
	X		X		=	

\*: For day to year conversion, see below table

1 pack a day	1 ½ packs a day	2 packs a day	2 ½ packs a day	3 packs a day
365 packs a year	548 packs a year	730 packs a year	913 packs a year	1095 packs a year

Tobacco smoking causes an acknowledgeable amount of suffering for families and individuals associating with smokers. This suffering manifests itself in the form of diminished quality of life, death, and financial burden.

## SOCIAL CONSEQUENCES OF TOBACCO USE

Smoking affects social interaction and relationships negatively. In most cultures, people see smokers negatively. There is a stigma attached to smoking (for example, people may think the smoker is smelly, disgusting/dirty, unhealthy...). As a smoker, their personal relationships may be affected because many people don't consider being in a relationship with a smoker. As a smoker, their children are more likely to

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