Adherence of Private Practitioners with the National Tuberculosis Treatment Guidelines in Pakistan: a survey report

Azhar Hussain, Zafar Mirza, Farrukh A. Qureshi, Assad Hafeez*
The Network for Consumer Protection, 40-A, Ramzan Plaza, G-9 Markaz, Islamabad and Department of Pediatrics, KRL Hospital*, Islamabad.

Abstract

Objective: In Pakistan, over 80% of the patients suffering from TB consult a private practitioner for the initial evaluation. A cross-sectional survey was conducted in seven thickly populated urban communities of Rawalpindi district to evaluate the adherence of private practitioners with TB treatment guidelines as laid down by National Tuberculosis Control Programme (NTP) in Pakistan. The data was collected over 30 days.

Methods: A young lean man was simulated to act as a TB patient and was provided with a chest X-ray suggestive of TB and two Acid-Fast Bacilli (AFB) positive sputum reports.

Results: A total of 77 practitioners were visited. Prescriptions of 53 general practitioners fulfilled the inclusion criteria and were analyzed. Only 2 (3.7%) prescriptions out of 53 met the required standard for TB patients as laid down by NTP. Eighty three percent (n = 44) favored a combination drug for the treatment while the rest preferred individual preparations.

Conclusions: The study reflects the lack of knowledge about standardized TB treatment protocols amongst the private practitioners in Pakistan. Public Private Partnerships between government public health departments and non-governmental organizations working in public health can be a valuable tool in generating mass awareness campaigns (JPMA 55:17;2005).

Introduction

Tuberculosis (TB) is a major public health problem and according to World Health Organization, (WHO) Pakistan ranks 6th in the countries having high disease burden. It contributes 26% of avoidable deaths among adults and children in Pakistan. The present annual incidence of open TB cases is between 85-100/100,000 persons and about 361,000 new cases of TB are added every year in Pakistan.

The International Union against Tuberculosis and Lung Disease has estimated tuberculosis to be the cause of one death every 10 seconds worldwide. Four out of 5 TB patients in Pakistan still remain undetected, untreated and inadequately managed. Lack of proper diagnostic equipment and skills, irrational prescriptions and non-availability of essential anti TB drugs are among the major contributing factors of various complications including emerging resistance. Multi Drug Resistant (MDR) TB is a major cause of high costs, mortality and longer duration of treatment. A simple TB case management incurs a cost of 3600 rupees for the treatment of 9 months while a MDR TB case, which requires treatment for 2 years, costs about 250,000 rupees.

Tuberculosis control in Pakistan is primarily the responsibility of the government sector, which has not been fulfilled for years. In Pakistan, over 80% of the patients suffering from TB consult a private practitioner for the initial evaluation. It is important to know the prescribing habits of these doctors. Various national studies on the issue have shown poor knowledge and prescribing behavior in prescribers.

In order to standardize the TB management in our country National TB control Program (NTP) introduced guidelines in 1995 which were revised in April 1999 containing diagnosis and treatment modalities for TB. This study was conducted to evaluate the adherence of private practitioners with TB treatment guidelines as laid down by NTP in Pakistan.

Subjects and Methods

A cross-sectional survey was conducted in seven thickly populated urban communities of Rawalpindi district. The study population comprised of private practitioners in these areas and from each such area 10 practitioners were selected at random. A total of 77 practitioners were visited, over 30 days. A young lean man was trained to act as a TB patient and was provided with a chest X-ray suggestive of TB and two Acid-Fast Bacilli (AFB) positive sputum reports. These positive investigation reports were given to him so that he did not had to undergo investigations each time to get prescriptions from the doctors. The patient was
time to get prescriptions from the doctors. The patient was trained by anticipating the general questions which he could come across during his encounter with the doctor (Annexure I). Prescriptions generated as a result of the simulated encounters were analyzed for the purpose of the study. Only those prescriptions were included for analysis which either had recognized the patient having TB or had any TB drug written in the prescription. The practitioners who were not qualified MBBS doctors, who did not write any prescription or who prescribed treatment other than TB were excluded from the study.

A standard prescription from a specialist doctor was obtained for comparison, which followed national TB control program guidelines and was validated by the National Guidelines for Tuberculosis Control in Pakistan (NTP). The prescriptions of 53 General Practitioners fulfilled the criteria and were analyzed. Data collected was entered on computer software and simple analysis was carried out including percentages, means and averages.

Patient Presentation

A young lean man of 25 years age presents in front of the doctor with the case history of 2-3 months lethargy, low grade intermittent fever with spiking in the evening, loss of appetite, weight loss and 4 weeks cough with yellowish sputum usually, but brownish at times. The temperature if noted was always between 100-100.50°F. He feels that he is becoming weak. He is living with his 7 member family in a small flat in a poor sector of the city. He did not receive any TB treatment as yet. He is working as a sales man at a garments shop and on the suggestion of a regular customer (who was a doctor) he got his chest x-ray and sputum test done.

Results

The majority of doctors interviewed were males (92.5%). Four (7.5%) practitioners were also working in the government sector in addition to private practice. General practitioners constituted 85% (n=45) of the practitioners, whereas 3.7 (n=3) were specialists, 9.3% (n=5) did not mention their status.

The patient record on the prescriptions showed that age, weight and family history was recorded by 83% (n=44), 18.9% (n=10) and 5.7% (n=3) respectively. Signs and symptoms were described in only 13.2% (n=7) of prescriptions, 17% (n=9) demanded further laboratory investigations (Table 1). Only 24.5% (n=13) asked the patient to come for a follow-up and advised a date. Interestingly not a single prescriber mentioned any categorization of the disease as desired by NTP guidelines or kept patient records.

Only 2 (3.7%) of prescriptions out of 53 met the required standard for TB patients as laid down by NTP. Eighty three percent (n = 44) favored a combination drug for the treatment while the rest preferred individual preparations. Pyridoxine, an important supplement of the treatment was correctly prescribed by only 2 doctors (3.8%) (Table 2). None of the doctors prescribing individual preparations could prescribe correctly. Seventy percent of prescriptions also contained medicines other than those required for treating newly diagnosed TB case. These include brands of ciprofloxacin, doxycycline and clarithromycin.

Discussion

This study in Pakistan is the first ever study that has used a simulated subject as a patient. The advantage of a simulated patient was that same pathophysiological parameters were presented to every prescriber in the study. The rehearsal of anticipated questions to the patient also helped in presenting essentially same qualitative history to every prescriber, without having any obligation of treatment of the subject or any change of patient parameters during the study period.

| Table 2. |
|-------------------------|-------------------------|
| Doctors prescribing Fixed dose combination | 83% (n=44) |
| Correct dose given | 43.18% (n=19/44) |
| Correct dose timing | 59.09% (n=26/44) |
| Correct duration of therapy | 43.18% (n=19/44) |
| Doctors prescribing Individual drugs | 17% (n=9) |
| Correct dose given | 0% (n=0/9) |
| Correct dose timing | 0% (n=0/9) |
| Correct duration of therapy | 0% (n=0/9) |
| Doctors prescribing pyridoxine | 47.16% (n=25/53) |
| Correct dose given | 3.8% (n=2/53) |
| Correct dose timing | 26.4% (n=14/53) |

This study reflects the situation in only one geographical area of the country however comparison of results with other studies on prescribing behaviors show similar situation and this can be used as an indicator of current situation with regards to National Tuberculosis Control Programme in Pakistan, that essentially is based on WHO guidelines.

The National TB Control Programme (NTP) in Pakistan was the result of WHO's emergency call to fight the onslaught of TB in 1993, years after previously formed National Tuberculosis Control Board was liquidated due to inadequate functioning. The NTP produced first set of national guidelines for treatment of tuberculosis in 1995 that were revised again in 1999. There has never been any mechanism for disseminating these guidelines to private practitioners, even to those working in government institu-
Control Programme in Pakistan, that essentially is based on WHO guidelines.

The National TB Control Programme (NTP) in Pakistan was the result of WHO's emergency call to fight the onslaught of TB in 1993, years after previously formed National Tuberculosis Control Board was liquidated due to inadequate functioning. The NTP produced first set of national guidelines for treatment of tuberculosis in 1995 that were revised again in 1999. There has never been any mechanism for disseminating these guidelines to private practitioners, even to those working in government institutions. The NTP also adopted DOTS strategy to combat ever increasing disease burden in 1994, it has taken nine years for NTP to launch DOTS in 75% of districts of the country that too only in the government owned allopathic treatment centres, without any facilitative systems that could link up with private practitioners.

Private healthcare system in Pakistan consists of majority of General Practitioners (GPs) who work exclusively in their privately owned clinical or hospital setups, however a number of doctors working in government managed healthcare setups also practice privately in their off hours. A considerable number of public sector paramedics, although legally not entitled, work privately in parallel with registered physicians in their off hours. We studied a cross section of different settings of private practice in the seven most populated regions of Rawalpindi city. It was expected that we’ll come across a few of these paramedics that were to be excluded from the study.

The prescribing patterns of doctors in this survey as well as in previous similar studies conducted show that inappropriate prescribing is common amongst GPs. Prescription analysis at a private teaching hospital in Karachi showed that on an average, 53% dosages were written correctly and not more than 79% doctors resorted to the recommended four drug regimen of RHZE. Another KAP survey of family physicians done in Karachi revealed that of the 39% doctors resorting to four drug regimen, only 7.3% could write the correct dosages. Similar findings could be quoted from studies done in Maharashtra India, where results of one study gave 71% wrong prescriptions amongst postgraduates and another indicated 79 different prescriptions among 122 practitioners.

Having 3% correct results reflects the quality of healthcare system in Pakistan in combating TB. These results also show the lack of effective collaboration between the private sector and the National TB Control Programme. The prescribing behaviour also indicates that the private practitioners are not receiving continuing education and training on TB case management guidelines. The effects of such prescribing behavior can be interpreted in terms of its negative effects of ineffective treatment, non-compliance and emergence of drug resistance.

It is suggested that NTP guidelines should be widely disseminated. Public private partnerships between government health departments and non-governmental organisations working in public health can be a valuable tool in generating mass awareness campaigns, to fill the gaps and to effectively utilize the existing public health infrastructure.

References


Introduction