

**To The Editor,
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In response to Dr. Manoon Leechawengwong's editorial in the January-April 1998 Issue of the Journal stating that it is a necessity, not a luxury, to obtain sputum TB culture and susceptibility from all tuberculosis patients in Thailand, there is a need to understand the following points for proper perspective:

First, The Thai guidelines for diagnosis and treatment of tuberculosis did not follow WHO recommendation. Only that it happened to coincide with the WHO's in considering costs and practicability for broader application. Incidentally, although WHO has a number of professional staff working in the Global Tuberculosis Programme, actually guidelines and recommendations issued by WHO were mostly the results of consultative meetings or workshops of leading specialists or workers in tuberculosis from all over the world invited by WHO for the purpose.

Second, Dr. Manoon's belief that theoretically MDR-TB may develop after ethambutol and pyrazinamide were discontinued at the end of the second month and patients with primary rifampicin resistance (or with primary INH resistance like in Thailand) are left on two drugs INH and rifampicin, soon the tubercle bacilli would develop resistance to both INH and rifampicin, and that short course chemotherapy may create more MDR TB cases in countries with high prevalence of primary rifampicin resistance, has already been disproved by the results of DOTS implementation in many countries. For instance, in New York City, where 33% of TB cases were resistance to one drug and 19% resistant to both INH and RFP (1,2) and in Tarrant County, Texas, (3) the significant decrease in TB cases, reductions in the frequency of primary drug resistance, acquired drug resistance and relapse were the results of short course therapy by DOT and not by the attempt to identify drug resistant TB and its treatment with the more expensive reserved drugs.

Likewise, in China, (4) the proportion of previously treated patients was about 60% of the 112,842 smear positive patients, probably with high incidence of INH and streptomycin resistances. However, after 5 years of DOTS implementation, even with intermittent regimens throughout, the cure rate was 90% for new patients and 80% for the previously treated, instead of the increase in the MDR-TB incidence.

Third, The national surveillance survey of drug resistance TB in Thailand supported by WHO launched since last year, is almost completed. Preliminary results indicate that the incidence of primary MDR-TB is still less than 5%.

Hence the top priority policy of the National Tuberculosis Programme for Thailand with limited resource (and economic crunch) is the directly observed treatment with short course chemotherapy or DOTS. We cannot afford to invest in the culture and drugs susceptibility test for all TB patients, which under programme condition are impractical, expensive, and useless, because the latter also entails another big investment to provide more expensive reserve drugs. The remaining chronic or MDR-TB cases should be referred to the specialists for treatment.

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References

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In response: We would agree with Dr. Nadda Sriyabhaya that no TB susceptibility testing in all TB patients is needed with practice of DOT and standard short course chemotherapy if Thailand has only high prevalence of primary INH resistance and low rate of primary rifampicin resistance and MDR TB. This situation probably existed in China, and sub-Saharan Africa. That is why DOT and standard short course chemotherapy are successful for both new and previously treated TB patients in these countries

There is a recent alarming increase in rate of primary rifampicin resistance and MDR-TB in Thai AIDS patients reported from Central Chest hospital (1). In the last 3 years the rate of primary rifampicin resistance and MDR-TB have risen from 8.9% and 2.7% to 14.3% and 8.8% respectively. These AIDS patients most likely acquire TB recently from the community rather than reactivation. Therefore the high prevalence of primary rifampicin resistance and MDR-TB in AIDS patients

reflects the spreading of these drug resistant strains in the community at the present time and predicts the future epidemic of primary rifampicin resistance and MDR-TB in non-AIDS patients in the future. As we all know DOT and standard short course chemotherapy can not cure TB patients with primary rifampicin resistance and MDR. We are wasting time and a large sum of money in treating primary rifampicin resistant TB and MDR-TB with DOT and standard short course chemotherapy.

We ought to know the susceptibility of TB patients in order to formulate the proper regimen. In primary rifampicin resistant TB, one does not need to go to the reserved and expensive drugs but one must use the remaining first line drugs wisely.

In U.S.A. especially New York city where we know first hand because one of us used to work there, all sputa have to be tested for susceptibility. Since 1990 NY city acquires the rapid diagnostic TB test including Bactec system. To turn the tide against the resurgence of TB in NY city required a combination of the support of most advanced TB laboratory, DOT and chemotherapy that tailored to each TB patients according to the susceptibility, not the standard short course chemotherapy. We are not proposing the Bactec system because of its high cost. We are recommending the existing solid media culture system which may cost less than 10 baht per each culture media preparation.

In summary we maintain that DOT and standard short course chemotherapy are not sufficient to control TB in Thailand, the susceptibility in all TB patients is urgently needed because of the high prevalence of primary rifampicin resistance and MDR-TB. Otherwise we will definitely lose the battle against TB in the near future.

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