

## **Tuberculosis Control — Means and Strategies**

Very effective tools exist for controlling this last of the great infections, but the disease is still far from being conquered in parts of our country. A spectacular reduction of tuberculosis has been achieved in many countries during the last 20 years. Japan, East Germany and Alaska are examples of areas where the effect of control has been dramatic, and certain sectors of South Africa have likewise attained good control, but in the Transkei tuberculosis incidence is very high.<sup>1</sup> New and better drug therapy has checked mortality and lessened morbidity, but pre-treatment disease transmission has kept the infection rate undiminished for 15 years.<sup>2</sup> Trials of different control programmes under widely varying conditions in various parts of the world have resulted in the accumulation of a wealth of new knowledge.

Control measures which relate to our situations can be summarised briefly:

Massive, steady, competent use of immunisation will control epidemic tuberculosis. The strategy of BCG vaccination must relate to the infection rate of the various population groups at various ages, and the difference between success or failure in a BCG programme may depend also on choice of the right BCG and the right manner of administration.<sup>3</sup> Chemoprophylaxis in some world areas has been advantageous, but its massive use in South Africa should be limited to those people who dependably will take isoniazid every day, and who live in areas where reinfection is unlikely, because protection lasts only as long as the drug is taken.

To break the chain of disease transmission, the first step is to identify the infectious tuberculous individuals, and render them non-infectious. Tubercle bacilli are demonstrated by culture, and acid-fast bacilli in sputum are demonstrated by simple direct microscopy. Therefore a primary need in the control programme is good bacteriology, and for this good salaries and equipment should be provided. But even with this, these essential services are inexpensive and more adequate for case-finding than radiology,

which in comparison is costly, unreliable and of little benefit. Repeated X-ray films of patients under treatment are also costly and dispensable, because adequate assessment of response to treatment is readily obtained by monitoring changes in the amount of bacilli excreted and the time of sputum conversion.

Tuberculin testing is an important part of the programme and should be done only by specially trained personnel. The Mantoux procedure with carefully chosen PPD tuberculin is a sensitive indicator of tuberculous infection,<sup>4</sup> and may also serve as an index of the success of BCG vaccination. Tuberculin sensitivity tests in children provide the principal data from which may be calculated the annual risk of infection of a given community.

Treatment of tuberculosis must be by choice of proper drug regimen plus an efficient organisation to ensure uninterrupted continuous drug administration for long periods. The new expensive drug, rifampicin, has not eliminated this requirement, and it will add little punch to poorly-supervised regimens. The commonest problem is uncontrolled irregular drug-taking and lack of co-operation by patients. Relapse and drug resistance follow. The remedy is controlled drug administration to outpatients. This may be successful even if it occurs only 2 or 3 times a week. Hospitalisation is effective, but usually not essential. It is very expensive, imposing on the taxpayer an annual bill of R17 million, and makes a small contribution to the decrease of tuberculosis in South Africa.

Objective information on the epidemiological situation in the various regions and population groups, and scientific evaluation of the performance of the different medicotechnical operations should be the rational basis for decision-making. Investigations are needed to determine the priorities in the programme, to identify the shortcomings, to follow up changes in the campaign by surveillance, to calculate cost versus benefit for any measure and



to evaluate effectiveness and efficiency according to managerial principles.

Finally, it has been amply demonstrated that for a successful countrywide tuberculosis programme there must be collaborative teamwork of medical scientists, microbiologists, epidemiologists, Health Department officials and paramedical staff. Millions of people and millions of rands are involved. Special programmes can be designed for individual areas on the basis of evidence from thorough, well-controlled investigations in these areas. More technicians and

paramedical personnel will have to be trained to do all basic work and to make TB services available to all people. Blacks should be on the control teams in Black areas and team members of other races in their areas. Such personnel may be most effective in education in such matters as how to recognise the first symptoms of TB, the need for submitting sputum for microscopy, and the importance of uninterrupted pill-taking.

1. SA Tuberculosis Study Group (1974): *S. Afr. Med. J.*, **48**, 149.
2. De Ville de Goyet, C. (1974): *Ibid.*, **48**, (in the press).
3. SA Tuberculosis Study Group (1973): *Ibid.*, **47**, 2207.
4. De Ville de Goyet, C. and Kleeberg, H. H. (1973): *Ibid.*, **47**, 1648.

## Waarom Twee Departemente?

Die algemene tendens in geneeskundige versorging, sowel voorbehoedend as terapeuties, is om die net wyer en wyer te gooi sodat 'n volwaardige span medewerkers gesamentlik verantwoordelik is vir die integrale dienste. Met ander woorde, ons probeer in die medisyne om alle fasette nie onder een klein hoedjie nie, maar onder een breë sam-breef byeen te bring. As dit so is, waarom verdeel ons steeds dienste wat in wese medies is tussen twee Staatsdepartemente? Is daar werklik goeie rede waarom daar 'n Minister van Gesondheid en 'n Minister van Volkswelsyn moet wees? Behoort die twee Departemente nie by een persoon tuis nie?

Daar is talle voorbeelde van onnodige en selfs sinnelose oorvleueling wat die direkte gevolg van ons huidige stelsel is. Die Minister van Volkswelsyn beheer alle geriatrise instellings, en omdat sy Departement ook verantwoordelik is vir die gesondheidsdienste aan die inwonende oues van dae, word die hulp van die Distriksgeneeshere ingeroep, en hulle sorteer onder die Departement van Gesondheid. Dieselfde geld vir die verskillende inrigtings vir alkoholiste en dwelmslawe. Hier is die klem tog sonder twyfel op geneeskundige behandeling, en tog sorteer dié plekke onder die Departement van Volkswelsyn.

Die meeste ander ontwikkelde lande hanteer die volle gesondheidsversorging van die gemeenskap vanuit een ministeriële kantoor, en dit skyn logies en wenslik te wees dat ons dit ook so doen. Daar sal natuurlik altyd 'n mate van oorvleueling in die werksaamhede van verskillende Staatsdepartemente wees, en 'n mens moet nie verwag dat selfs die ingrypendste herskommeling dit sal uitskakel nie. Maar vanselfsprekende samesmelting behoort oorweging te geniet. Op die oomblik is die Minister

van Gesondheid steeds verantwoordelik vir Mynwese tesame met Gesondheid. As ons die woordspeling geoorloof word, moet ons sê: dit is nie 'n gesonde toedrag van sake nie. Die geneeskunde met al sy vertakkinge het reeds lank so gegroei dat dit nie as 'n stiefkindjie onder die kabinetsportfolio's beskou mag word nie, en as Volkswelsyn ook onder dieselfde Minister se vlerk gebring kan word, sal dit 'n grootse en uiters belangrike Departement wees.

Erkenning kan steeds gegee word aan dié aspekte van die werk wat werklik so uiteenlopend is dat dit aparte aandag verdien, deur 'n Sekretaris van Volkswelsyn te behou as ewewaardige kollega van die Sekretaris van Gesondheid in dieselfde Departement. En ons wil nog iets by dié bredie gooi. Ekologie as 'n werks- en studiegebied neem al hoe groter afmetings aan, en dit het tyd geword dat ons ook hieraan volle erkenning gee. Dus sou 'n derde persoon, 'n Sekretaris van Ekologie, 'n welkome en rasionele byvoegsel tot die Departement van Gesondheid wees.

Herskommelings in 'n kabinet het al te dikwels 'n sterk politieke kleur, maar hier is 'n verandering wat voor die hand liggend is, en wat nie deur enige politieke party uitgebuit kan word nie. Ons het die regte persone vir die poste, 'n parlamentsitting lê voor die deur, en dit is dus nou die regte tyd om handelend op te tree. Ons wil graag sien dat die Minister van Gesondheid met wie die Mediese Vereniging onderhandel, en met wie ons nog altyd op sulke goeie voet verkeer het, in die posisie sal wees om onverdeelde aandag aan al die gesondheidsbenodighede van die land te skenk en met die bystand van sy twee of drie sekretarisse dienste op logiese en integrale wyse te bestuur.