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Teaching Materials and Services

Meeting the information needs of health workers in developing countries: INASP-Health, UK

Dr Neil Pakenham-Walsh, Programme Manager, INASP-Health, International Network for the Availability of Scientific Publications, PO Box 2564, London W5 1ZD, contributed the following to the *British Medical Journal*, **314**, 90:

Health workers in the developing world are starved of the information that is the lifeblood of effective health care.[1,2] As a direct result, their patients suffer and die. In the words of the late James Grant, former executive director of Unicef, 'The most urgent task before us is to get medical and health knowledge to those most in need of that knowledge. Of the approximately 50 million people who were dying each year in the late 1980s, fully two thirds could have been saved through the application of that knowledge.'[2]

Providing access to reliable health information for health workers in developing countries is potentially the single most cost effective and achievable strategy for sustainable improvement in health care. Cost effective because the amounts of money required are negligible compared with those invested in health services. Achievable because providers of health information have the will and commitment to make it happen, and because information technology presents exciting new opportunities to complement conventional methods of dissemination. And sustainable because information access is the sine qua non of the professional development of all health workers—the most vital asset of any healthcare system.

In 1994 and 1995 the *BMJ* hosted international meetings to look for ways to improve the dissemination of health information to, from, and within the developing world.[1] The meetings showed that the overall impact of providing health information would be greatly enhanced by increased coordination, analysis, and funding. A new programme was needed to serve as a point of reference for those who supply and receive information, to build a global picture of their activities and needs, and to argue their case with others. This programme is now being introduced within an existing non-profit organization, the International Network for the Availability of Scientific Publications (INASP). Founded in 1991 by the International Council of Scientific Unions, INASP is a cooperative network of providers and recipients of science information, promoting the exchange of quality information (both printed and electronic) between and within the developed and developing world.

The new programme, INASP-Health, serves three main functions. Firstly, it provides a referral and advisory service for information providers and potential recipients. For example, institutions seeking health information can approach INASP directly and be put in touch with the organizations most likely to help. INASP-Health acts as a catalyst for new collaborations and initiatives and will soon be launching a dedicated email discussion list to facilitate cooperation and debate.

Secondly, INASP-Health aims to build a global picture of health information priorities in the developing world and the most appropriate ways of addressing them. It is developing a specialized database of needs assessments, evaluations of cost effectiveness, and other material related to the provision of health information. These data will be made freely available to help with the planning and setting up of new programmes, to provide support for funding applications, and to help develop future strategies.

The third function of INASP-Health is advocacy, both at a specific and a general level. For example, it works with organizations such as the Association for Health Information and Libraries in Africa (AHILA) to promote their needs to a wider audience, negotiating with publishers and others on their behalf. On a wider scale, INASP-Health will work increasingly with international organizations like the World Health Organization and World Medical Association and with governments and funding agencies to promote the development of cost effective strategies and to strengthen political and financial commitment.

INASP-Health aims to ensure that the developing world does not get left behind by the information revolution. Rather, it wants to harness the enormous potential to provide the developing world with the information that for too long it has lacked.

References

[1] Kale R. Health information for the developing world. *BMJ* 1994; **309**: 939–42.
[2] Grant J. Opening session. World summit on medical education, Edinburgh 8–12 August, 1993. *Med Educ* 1994: 28(suppl 1): 11.

WHO. Treatment of Tuberculosis: Guidelines for National Programmes, Second Edition 1997

This first revision has been prepared by WHO to give practical guidance to national TB programmes in the effective management of TB control. The Preface emphasizes that the basic principles of TB control, as set out in the first edition in 1993, remain the same. The revision updates the guidelines in the light of experience gained during the past 4 years and is intended for use in any country where there are high TB incidence populations. The main objectives are listed as follows: 1, to describe briefly the global TB burden and the framework for effective TB control; 2, to describe standardized treatment regimens according to TB case definitions and categories; 3, to describe the monitoring of individual patients and how to ensure their adherence to treatment; 4, to describe the special considerations in treating HIV-infected TB patients; and 5, to provide information on anti-TB drug supply in the context of national pharmaceutical policies and essential drug programmes. The guidelines are primarily for TB programme managers, policy makers in Ministries of Health, non-government organizations and donor agencies, but health workers and teachers and students in medical schools and nursing schools will also find them helpful. The main chapter headings are: Introduction, Strategy and framework for effective TB control, Case definitions, Standardized treatment regimens, Monitoring the patient, Adherence to treatment, HIV infection and TB, and Antituberculosis drug supply and use. Five annexes cover: Standardized management plan for TB patients, Essential anti-TB drugs, Fixed-dose combinations of antiTB drugs, Price list of essential antiTB drugs, and Cost of recommended treatment regimens.

Both the amount of detailed information and the importance of this publication from WHO defy brief analysis or description and it should be studied in the original by those engaged in the formidable task of tuberculosis control, notably in developing countries. This document, together with that on the management of drug-resistant TB (reviewed below) will leave few readers in doubt about the complexity of controlling TB worldwide, with the drugs and other resources currently available. Many of those working in leprosy, with its relatively clear-cut regimens of drugs, low toxicity and the absence (as yet) of an epidemiological association between leprosy and HIV/AIDS, will be struck by the comparison between the approach to the two diseases. Whilst an action programme for the elimination of leprosy is already under way, it would appear that TB faces a worsening situation, complicated not only by the effect of HIV/AIDS but also by increasing levels of drug resistance.

Further information: Global Tuberculosis Programme, WHO, 1211 Geneva 27, Switzerland. WHO/TB/97.220

WHO. Guidelines on the management of drug-resistant tuberculosis.

This outstandingly important document from the *Global Tuberculosis Programme* of WHO has been written by Sir John Crofton, Professor Emeritus of Respiratory Diseases and Tuberculosis, University of Edinburgh, Scotland, Pierre Chaulet and Dermot Maher, Global Tuberculosis Programme, Geneva, with contributions from Jacques Grosset, William Harris, Norman Horne, Michael Iseman and Bryan Watt. The Foreword reads as follows:

1. About one third of the world's population is infected by *Mycobacterium tuberculosis*. Worldwide in 1995 there were estimated about nine million new cases of tuberculosis with three million deaths. *M. Tuberculosis* kills more people than any other single infectious agent. Deaths from TB comprise 25% of all avoidable deaths in developing countries. 95% of TB cases and 98% of TB deaths are in developing countries, 75% of these cases are in the economically productive age group (15–50).
2. As a consequence, the world is facing a much more serious situation in the twenty-first century than that of the mid-1950s. Due to demographic factors, socio-economic trends, neglected TB control in many countries, and in addition, the HIV epidemic, there are many more smear positive pulmonary TB cases, often undiagnosed and/or untreated. When TB cases are treated, poor drug prescription and poor case management are creating more TB patients excreting resistant tubercle bacilli.
3. In 1991, the World Health Assembly adopted Resolution WHO 44.8, recognizing '*effective case management as the central intervention for tuberculosis control*', and recommending the strengthening of national tuberculosis programmes by introducing short course chemotherapy and improving the treatment management system. Since 1992, the WHO Global Tuberculosis Programme has developed a new strategy, to meet the needs of global tuberculosis control.

TB control requires effective, inexpensive, simple and largely standardized technology, and the managerial skills to implement them as a large scale intervention in each country.

4. The success of the WHO case management intervention or 'DOT,S strategy' depends on the implementation of a policy package with 5 components:

- government commitment;
- case detection by microscopy through predominantly passive case finding in existing primary health care (PHC) services;
- **D**irectly **O**bserved **T**reatment, **S**hort course chemotherapy: standardize short course chemotherapy regimens administered under close control, given free of charge, for new and retreatment cases smear positive;
- regular drug supply of all essential anti-tuberculosis drugs;
- establishment and maintenance of monitoring mechanisms of case detection and treatment outcomes, based on recording individual patient information in district registers and a system of quarterly reporting.

5. In all countries that have adopted the 'DOTS strategy', under programme conditions the cure rates (and the success rates) of TB smear positive cases are already over 80%. When this strategy is implemented over a long period for the standardized treatment of TB smear positive cases, there will be a huge reduction in sources of infection and in transmission.

For the future, the top priority remains to administer standardized short course chemotherapy regimens to all smear positive cases (new and retreatment cases). This priority requires the maximum of effort, time, drugs and money in a national tuberculosis programme, without diverting funds and resources to smear negative and/or chronic cases.

6. The issue of the treatment of those pulmonary TB patients who remain sputum smear positive following fully supervised WHO retreatment regimen should be considered. Although these cases represent a small minority of TB patients, they constitute a permanent problem for programme managers.

Due to the lack of financial resources and/or information on the second line drugs, many countries cannot afford to provide the range of these expensive drugs which might give some hope of cure to patients. However, more economically prosperous countries might wish to do so, especially if they have inherited a significant number of patients with multi drug resistant (MDR) TB from a period when treatment was unorganized and chaotic.

The WHO Tuberculosis Control Workshop held in Geneva, October 1995, discussed this issue and made the following recommendations:

a. a country prepared to go to this expense should only provide these drugs for a **specialized unit** (or units in large countries), in close connection with a **laboratory** able to carry out cultures and reliable susceptibility tests of *M. tuberculosis* to the drugs.
b. **Guidelines prepared by WHO** for treating such patients should only be made available on request to properly established units.

The '*Guidelines for the management of drug resistant tuberculosis*' is prepared to meet this request/need.

The main sections are entitled—Introduction, Basic principles for management of multi-drug resistant (MDR) tuberculosis, Assessing the individual case of apparent MDR tuberculosis, Available drugs for MDR tuberculosis, Choosing a chemotherapy regimen for a patient with apparent MDR tuberculosis and Place of surgery. An Annex (page 31) gives detailed information on second-line anti-tubercolisis drugs (aminoglycosides, thioamides, fluroquinolones, cycloserine (and terizidone) and para-aminosalicylic acid (PAS). Under 'Magnitude of the problem', section 1.3.2 on page 7 reads:

> During the early stages of implementation of a national tuberculosis control programme, *old cases* (previously treated by usually inappropriate and non-standardized chemotherapy regimens) may represent up to half of notified cases. In this situation, acquired resistance emerges as a priority problem, as the rate of acquired resistance is 50% to 80% in previously treated cases. The priority solution is to standardize at country level and to adopt the WHO recommended standard regimens of chemotherapy for new cases and for retreatment cases, in order to stop the creation of more cases with bacterial resistance. Even if the proportion of MDR tuberculosis among drug resistant tuberculosis is high, **the top priority is not the management, but the prevention, of MDR tuberculosis**.

Under section 1.3.4 on page 8, attention is drawn to the lower rates of primary resistance in new patients, usually 5% or less in good national programmes, and 15% or more in new programmes implemented after a period of unorganized and chaotic chemotherapy.

Table 3 (page 23) lists no fewer than 15 drugs (including PAS, now hardly ever used for the treatment of drug-*sensitive* cases), available for the treatment of MDR tuberculosis and Table 4 summarises the costs of defined daily doses (DDD) for one month, in US dollars. Pages 37–40 carry 42 references covering all aspects of this vitally important (and disconcerting) subject. It bears repetation that these Guidelines have been prepared by WHO to meet the requests/needs of *properly established* (specialized) units in close connection with a laboratory able to carry out cultures and reliable susceptibility tests of *M. tuberculosis* to the drugs. Its essential messages, however, deserve wide distribution and serious consideration, for it is increasingly clear that failure to address this problem without delay may jeopardize the entire future of chemotherapy for tuberculosis.

Further information: Global Tuberculosis Programme, WHO, 1211 Geneva 27, Switzerland WHO/TB/96.210.

Leprosy: basic information and management

Leprosy: basic information and management was first published in 1987 with support from the *Ciba-Geigy Leprosy Fund* (title now changed to the above), a fourth edition has now been produced and is

available free of charge from Novartis Foundation for Sustainable Development, PO Box K-1313.4.40, CH-4002, Basel, Switzerland. The 40-page booklet has been up-dated and revised to include information on the progress which has been made in recent years towards the WHO goal of elimination of leprosy as a public health problem by the year 2000.

Managing drug supply

Improved policy decisions and management of essential drugs can make a positive impact of the health of a nation. *Managing Drug Supply* provides health planners and managers with the insights and tools to manage their pharmaceutical expenditures more rationally. Since the first edition was published in 1981, this 600-page handbook has been translated into French and Spanish, and has become a standard in the field of essential drugs management in developing countries. The first edition has been used by organizations such as UNICEF; as a reference manual by ministries of health, nongovernmental organizations and private consultants; and in training programmes in the USA, Europe and developing countries.

The new edition has been extensively revised and expanded in collaboration with the Action Programme on Essential Drugs (and other WHO programmes). It provides up-to-date descriptions of the process of drug selection, procurement, distribution and use. Policy and the economic environment in which pharmaceuticals are used are also critically examined using current management experience and procedures from around the world.

Illustrated with over 300 figures, tables, 'how-to' boxes and sample forms, *Managing Drug Supply* can be used by pharmacists and other health professionals, policy makers and trainers. Glossaries, address lists, lists of further reading and references, and a comprehensive index offer the reader tools for research and follow-up.

Managing Drug Supply. The Selection, Procurement, Distribution, and Use of Pharmaceuticals, (2nd ed.), J. D. Quick, J. R. Rankin, R. O. Laing, R. W. O'Connor, H. V. Hogerzeil, M. N. G. Dukes, A. Garnett (eds.), 1996, 832 pp.

Available from: Kumarian Press Inc., 14 Oakwood Avenue, West Hartford, CT 06119-2127, USA. Price: US$84·95 (developed countries) and US$22·95 (developing countries).

Tuberculosis and HIV, a clinical manual by A. D. Harries and D. Mahar

This manual provides a pocket-sized guide to the clinical management of tuberculosis, particularly in patients suffering from HIV co-infection. It promotes the best possible diagnosis and treatment in low-income countries where prevalence is high, case loads are heavy and laboratory support may be limited. With these needs in mind, the manual combines the latest scientific knowledge with authoritative advice based on extensive field experience in several of the hardest hit countries.

Though primarily addressed to clinicians working at district hospitals in sub-Saharan Africa, the publication is also suitable for use in areas of Asia and South America where the problem of tuberculosis and HIV co-infection presents a growing clinical challenge.

Available in English, (French and Portuguese in preparation), from: World Health Organization, Distribution and Sales, 1211 Geneva 27, Switzerland. Price: Sw.fr.12/US$10·80, and in developing countries Sw.fr.8·40.

WHO/TB/96.200.

Tuberculosis and Children, AHRTAG, 1996

The Appropriate Health Resources and Technology Action Group (AHRTAG) has published a special supplement to its quarterly newsletter, *Child Health Dialogue*, entitled *Tuberculosis and Children.* It

provides health workers in developing countries with practicals up-to-date information on how to tackle this preventable disease. The supplement outlines the principles: of TB control and provides clear guidelines on the detection, diagnosis, treatment and prevention of TB. *Tuberculosis and Children* complements another AHRTAG publication on tackling TB and HIV—*Aids Action* No. 31.

Available from: AHRTAG, 29–35 Farringdon Road, London EC1M 3JB, UK. Price: For individuals. in Europe, North America, Australasia and Japan £2·50 each for £4·50 for both publications. Available free of charge to readers in developing countries.

Molecular immunology of infectious diseases, 8-week course, autumn 1997, London, UK

This 8-week course on 'Principles and practice of molecular immunology of infectious diseases' has a free-standing syllabus of lectures, tutorials and laboratory sessions designed to illustrate current concepts and methodologies in the immunology of infectious diseases.

Participants

Scientific research workers at all levels including technicians and Principal Investigators, PhD students and clinicians from within the United Kingdom and overseas who wish to obtain a concise and clearer understanding of the basic principles and practical techniques in host resistance against infection.

Course aims

To provide a thorough grounding in the mammalian immune system and its response to infection of the host. This will be achieved by a combination of lectures, tutorials, practical classes and free study periods involving members of staff at the School actively involved in research in these fields plus selected experts from other institutions. The course will cover aspects of innate versus acquired resistance, current concepts in leucocyte activation and function in response to microbial stimuli, as well as immune-mediated pathology and new advances in vaccination. General lectures presented in weeks 1–4 will use examples of clinically important pathogens to illustrate key concepts in leucocyte biology, while week 5 will provide an additional focus on the specific immune responses relevant to particular microbial groups including viruses, bacteria, parasites and fungi. Students are encouraged to attend the British Society of Immunology Annual Congress in week 7. Students will also have some opportunity to attend ongoing research seminars presented within the School as part of our existing research programmes on tropical medicine and infectious disease immunology.

Speakers
London School of Hygiene and Tropical Medicine:

FACULTY

LSHTM:
Dr G. J. Bancroft, Dr H. M. Dockrell, Dr P. Fine, Dr P. M. Kaye, Dr J. Raynes, Prof M. W. Steward, Dr A. Thomas.

INVITED SPEAKERS:
Dr A. Akbar, Dr D. Lowrie, Dr P. Life, Dr D. Male, Prof T. McDonald, Dr H. Stauss and Prof M. Turner

COURSE TIMETABLE

FOUNDATION:

22 October Welcome and Orientation

0930 Welcome and Introduction to the Department
1000 Round table introduction to the course
1100 Safety orientation
1400 Library tour

23 October Foundation I:

0930–1030 Innate resistance to infection
1100–1200 Antibodies and resistance

24 October Foundation II:

0930–1030 T cell and cytokine responses to microorganisms
1100–1200 Evasion of immune responses by pathogens

CORE IMMUNOLOGY COURSE:

LECTURE/TUTORIAL TOPICS	**LABORATORY TOPICS**
WEEK 1:	
Innate versus adaptive immune responses	Antibody purification and function
Microbial immunogens and antigens	
Antibody structure and function	
Generation of diversity	
Phagocytes	
WEEK 2:	
Complement	Phagocyte isolation and function
Lymphoid systems	Lymphoid cell separation
MHC genes and function	Flow cytometry
Antigen processing & presentation	
T cell receptor structure and function	
WEEK 3:	
T cell activation/costimulation	Lymphocyte proliferation
T cell derived cytokines	Cytokine protein assays (ELISA)
Phagocyte derived cytokines	
Cytokine receptors/inhibitors	
Regulation of immunity	
Adhesion molecules in infection	
WEEK 4:	
Inflammation	Immuno-assays
Hypersensitivity	
Allergic responses	
Apoptosis in the immune system	
Tolerance/autoimmunity	
Cell mediated cytotoxicity	

WEEK 5:

Immunity to viruses	ELISA based methods
Immunity to bacteria	Parasite detection methods
Immunity to parasites	
Immunity to fungi	

WEEK 6:

Vaccines	Cytokine mRNA assays (PCR)
Mucosal immunity	
Genetics of resistance to infection	
Novel vaccination strategies against infection	
T cell/antibody epitope mapping	
Anti-disease vaccination	
Recombinant DNA vaccines	

WEEK 7:

Attend British Society of Immunology Annual Meeting	Immunocytochemistry
Tumour immunology	
Neuroimmunology	

WEEK 8:
Revision tutorial sessions
Student presentations
Course test.

FEES

The fee for the course is £3,100. Fees are for tuition only. In addition participants will need funds for travel, accommodation and meals in London and for optional attendance at BSI conference.

A certificate of attendance will be provided following completion of the course.

APPLICATIONS

Applicants should complete an application form and return it as soon as possible to the Registry at the address below:

Registry
London School of Hygiene & Tropical Medicine
Keppel Street
London
WC1E 7HT

Telephone: **+44(0) 171 927 2409**
Fax: **+44 (0) 171 323 0638**
E-mail: **registry@lshtm.ac.uk**

ALERT Training Calendar 1998

January 12–February 20
Prevention and management of disabilities
Target group: physiotherapists, occupational therapists, podiatrists as well as experienced leprosy

workers involved in POD. Emphasis on both patient care (early detection of nerve deterioration, health promotion, problem solving) and programme management (POD management, home based care and rehabilitation).

March 9–March 20
Introduction to leprosy for physicians
Highly recommended for the participants in the following 'Management of Combined Programmes' course who need to refresh their knowledge of clinical leprosy. The course can also be taken on its own by physicians responsible for diagnosis, treatment and care of leprosy patients in either a hospital or a control programme setting.

March 23–April 24
Management of combined leprosy and tuberculosis control programmes for physicians
Target group: experienced physicians responsible for managing a leprosy and TB control programme at the regional level or above. Emphasis on programme management: needs analysis, action plan, implementation of activities, supervision, evaluation, management of resources, training, health promotion and POD. A brief review of the essentials of TB is included, but leprosy expertise is a prerequisite. Participants lacking the latter should also take the preceding 'Introduction to Leprosy' course.

May 11–May 27
Essentials of leprosy and tuberculosis for administrative and programme support staff
Target group: administrative and managerial staff without a medical background, working in leprosy and TB programmes and donor agencies. Objectives: to gain a better understanding of the two diseases, to communicate more effectively with the medical staff, and to contribute more efficiently in decision making and priority setting.

September 21–October 30
Essentials of leprosy and tuberculosis for physicians
Target group: physicians with limited experience in either leprosy or TB. Emphasis on clinical aspects of leprosy and TB, individual patient care and its application in the context of a combined programme, with an introduction to health promotion and managerial issues, paying special attention to POD and supervision.

November 2–November 13
Introduction to leprosy for senior field staff
Highly recommended for the participants in the following 'Management of Combined Programmes' course who need to refresh their knowledge of clinical leprosy. The course can also be taken on its own.

November 16–December 11
Management of combined leprosy and tuberculosis control programmes for senior field staff
Target group: experienced nurses, paramedical workers or supervisors responsible for leprosy and TB control at the district (or equivalent) level. Emphasis on planning, implementation, supervision and evaluation of control activities, with special attention for POD, health promotion and support functions. A brief review of the essentials of TB is included, but leprosy expertise is a prerequisite. Participants lacking the latter should also take the preceding 'Introduction to Leprosy' course.

For further information, please contact:

ALERT Training Division
P.O. Box 165

Addis Ababa
Ethiopia
Tel.: 251-1-711524 or 251-1-712792
Fax: 251-1-711199 or 251-1-711390
Email: ahri@telecom.net.et

Social Rehabilitation Course, ALERT, December 1997

Whom is it aimed at?: Social Workers, Occupational Therapists, any health professionals involved in rehabilitation programmes

What are the objectives?: To look at Rehabilitation Issues, including: Dimensions of Disability, Management and Evaluation of Programmes, Stigma and Changing Attitudes, Social Rehabilitation, Vocational Rehabilitation, and CBR.
Options (choose 2 out of 4): to look in more detail at—

Media work,
Counselling and Guidance,
Management issues, and
Income generating activities

When will it be held? December 1st to 12th, 1997.

Interested? If you are concerned with any aspect of the rehabilitation of people affected by leprosy, you should consider sending participants to this course, but hurry, it is filling up fast.

Contact:
ALERT Training Division,
P.O. Box 165, Addis Ababa,
Ethiopia
Tel: +251 171 2792 or +251 171 1524,
Fax: +251 171 1199 or +251 171 1390
Email: ahri@telecom.net.et