Non-compliance: A major problem in anaemia control

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Nutritional anaemia in pregnancy is well documented but compliance with iron supplementation remains low.

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Low socioeconomic groups seldom take tablets with any regularity, yet, will readily accept injections; in South Kanara, pills are thought to be inappropriate for illnesses involving digestive disorders and liquid medicines are the preferred treatment for most ailments suffered by pregnant women; and in Sierra Leone, the Mende choose white coloured or bitter medicines for the treatment of fevers. Pregnant women in Kanara believe that iron pills are appropriate for vomiting, fever and fits but not for weakness or bloodiness. In addition, they perceive tablets as inappropriate forms of medication because hard pills are considered difficult to digest and are thought to share the same body space as the fetus. In both examples, pregnant women refrain from taking iron tablets. In Sierra Leone, certain illnesses, including worm infestations, are said to drain the blood or "dirty" it. To replace or purify the blood, traditionally red foods and medications are used. Western medicines, red in colour (iron tablets, diuretics, pills and tablets and folk acid) are widely accepted because they strengthen or purify blood. If anaemia is known to be a disorder linked to blood, red iron tablets then may be considered as an acceptable treatment measure.

In many societies notions of health and ill health are based on a system of defining health as a balance between opposing elements in the body, where ill health is an imbalance, a deficiency or excess of these elements. Within the context of oral hybridity between the elements, both food and medicines are identified as possessing humoral characteristics and thus playing a role in the physical effects on the body. Humoral theories may also pervade indigenous perceptions of conception and pregnancy. Pregnant women, desiring to carry their babies to term, avoid eating foods and taking medicines that are thought to adversely affect the pregnancy state. For example, among the Malay in Indonesia, pregnant women avoid medicines believed to be "hot". Hot substances are thought to cause the womb to become uncomfortably hot and to induce abortion. Among the Kanara of South India, pregnancy is considered to be a time of increased body heat and is deemed a natural process. "Overheating", however, is considered dangerous. The intake of certain foods and Western medicines are believed to be heating substances and therefore are decreased or restricted during pregnancy to avoid abortions caused by overheating.

Marketing strategies have also been found to affect compliance. In India for example, the health staff distributing iron medications, promote the tablets as "good for health" and as a tonic to "produce a big baby". This marketing strategy negatively affected women's decisions to take iron tablets because big babies are associated with difficult deliveries.

The disregard of women’s health beliefs and perceptions in the planning and execution of not only iron supplementation programmes but also prenatal services, may well be important factors in women’s non-compliance with treatment regimes and the under-utilisation of prenatal services. Several of the studies reviewed here showed that satisfactory compliance rates were achieved enlisted the support of traditional birth attendants or other close members of the community such as the drug suppliers. Sustained motivation of health workers, their adequate supervision, ensured logistical support and appropriate marketing strategies are other factors found to be positively correlated with drug compliance. Thus an assumption can be made that when cultural factors and beliefs are taken into consideration in the execution of iron supplementation programmes, success is possible.
RATIONAL USE

Australia: an audit of GPs antibiotic prescribing

The best performance indicator of prescribing quality comes from comparing actual drug use with peer-consensus recommendations concerning cost-effective drug use, says Dr Ken Harvey of Melbourne's Victorian Medical Postgraduate Foundation. He recently led a study which compared the antibiotic prescribing of a random sample of general practitioners with the recommendations in the 5th edition of 'Antibiotic Guidelines'.

Considerable variation was found between actual prescribing practices and the recommendations of the guidelines.

In three months it helped cure one disease wonder drugs can't.

For example, 50% of the general practitioners prescribed norfloxacin for acute uncomplicated urinary tract infection although its use is not recommended by the guidelines for this indication. For tetracyclines, broad-spectrum antibiotics such as amoxicillin and co-trimoxazole accounted for 43% of 2534 prescriptions and were prescribed by 66% of the general practitioners despite lack of evidence justifying their use.

In general, prescribing patterns appeared to reflect promotional activities of the pharmaceutical industry, concludes the study, with practitioners prescribing the latest, most expensive, heavily promoted antibiotics rather than older, less expensive, but equally effective drugs, recommended by peer consensus guidelines.

Dr Harvey is now working on a follow-up campaign, combining educational material with academic detailing, directed at half the original sample of doctors with the other half serving as controls. The techniques are similar to those used in a recent controlled trial of educational intervention to improve antibiotic use in 12 Victorian public hospitals, he reports. In addition, lessons learned from the general practice antibiotic audit have been incorporated in the continuing education programme of the Royal Australian College of General Practitioners and the sixth edition of the 'Antibiotic Guidelines' (which now has the support of all Australian states).

Further details can be obtained from Dr K.J. Harvey, Victorian Medical Postgraduate Foundation, Melbourne, Australia.

In Thailand, improvements in haemoglobin levels were achieved in two groups of pregnant women: for one group tablet-taking was supervised by trained village health volunteers; the second group was motivated by midwives who helped the women to understand the purpose and importance of the supplementation regime. The midwives visited the women once or twice a month to monitor progress of the pregnancy and encourage them to continue taking the tablets. In addition, monthly calendars with illustrations showing that iron makes pregnant women and their babies stronger were provided so that women could record their daily intake of iron.

In India, following the introduction of the screening and treatment of anaemia in pregnant women by community health workers, the prevalence of anaemia dropped dramatically. In a malaria control programme, the distribution of antimalarials by traditional birth attendants was found to be an effective means of reaching primigravida women and for encouraging them to take the chemoprophylaxis. Good compliance rates with weekly prophylactic chloroquine were achieved with supervised distribution of tablets at monthly prenatal clinics in Papua New Guinea.

Cultural and religious beliefs, attitudes towards taking medications, logistical factors and marketing techniques are instrumental factors which affect women's decisions to seek health care and to follow through with prescribed preventive or treatment regime. Yet data on these factors are sparse. These high priority areas need to be explored to begin to develop a database on factors which influence women's compliance and health care utilization so as to be better equipped to develop and implement successful health care services, in particular, anaemia control programmes. Levels of compliance need to be evaluated in relation to operational efficiency of maternal and child health clinics including accessibility and availability of services and accessibility of drugs at any given time. Cross-cultural surveys to examine women's attitudes towards taking medications and cooperative health care services for both wanted and unwanted pregnancies are needed. In order to examine women's perceptions of their pregnancy state and factors influencing their health decisions, cross-cultural studies using both closed and open ended survey techniques and focus group discussions need to be conducted. Studies are required on the efficacy of using different categories of health personnel for medication distribution e.g. traditional birth attendants and village health workers.

Indonesia: Universities discuss teaching rational use

In October 1989 more than seventy representatives of medical and pharmacy schools and the Ministry of Health met in Yogyakarta, Indonesia to discuss ways and means of introducing the concept of essential drugs and rational prescribing into undergraduate curricula. The meeting was organized by the Department of Clinical Pharmacology of the Gadjah Mada University, with technical and financial support from WHO's Action Programme.

Discussions centred around several initiatives currently taking place in Indonesia. Participants heard an impressive account of activities at the Medical School in Surabaya, where teaching staff have developed an ever-increasing range of reference and teaching materials, which now include a set of diagnostic and treatment guidelines for the various departments of the hospital and a hospital formulary.

The Secretary of the newly established Centre for Clinical Pharmacology and Drug Policies in Groningen, The Netherlands, presented their experience with an innovative course in clinical pharmacology for medical undergraduate students, which has been given since 1981 to students between the ages of 21 and 68. Experience with this course is now being used, in collaboration with WHO, in the preparation of a training manual "Guide to Good Prescribing", which outlines the principles of rational prescribing and is intended for medical students and their teachers.

The meeting established a core group of individuals from institutions already engaged in such activities to provide coordination and support for the various teaching institutions in their efforts to promote rational prescribing. The secretariat of the core group is at the Department of Clinical Pharmacology, Faculty of Medicine, Gadjah Mada University, Yogyakarta, Indonesia, telephone (62)274-85886 Ext. 579, Fax (62)274-5509 (attention Dr Budiono Santoso).

A new international programme in pharmacoepidemiology

The International Clinical Epidemiology Network (INCLEN), which is supported by the Rockefeller Foundation, is developing a new programme in pharmacoepidemiology, whose long-term goals were outlined at a meeting in Belgrade in April this year. The purpose was an outgrowth of global efforts to improve the availability and rational use of essential drugs and vaccines in developing countries, and was intended to facilitate linkages between organizations active in this area. Considerable interest was placed on the achievements of the WHO Essential Drugs Programme in promoting the rational use of drugs throughout the world. Participants, who came from a variety of disciplines, countries and organizations, included the international pharmaceutical industry, heard reports on essential drugs programmes in Brazil, Indonesia, Nigeria, Panama, the Philippines and Tanzania.

The curriculum of the new training programme will foster the WHO essential drugs concept and take advantage of the existing reference programme established by the Drug Action Programme, such as "The World Drug Situation". It will also stress the social and behavioural aspects of therapeutic drug use, incorporating behaviour modification techniques and methods to improve each link of the drug chain. Start-up funding has been made available for INCLEN fellows who at present number over 200 in developing countries, though the competitive seed grant programme.

INCLEN plans to coordinate its efforts with existing national organisations and will request assistance from specialists in the field working in their countries. The pharmacoepidemiology programme should enable INCLEN fellows trained in clinical epidemiology, biostatistics, social sciences and health economics to expand the scope of their efforts to improve the final common pathway, and also provide insight into the rational use of drugs, says Professor Calvin Kunin, programme coordinator.

Further details concerning INCLEN and the Bellagio Conference can be obtained from Scott Halseid, M.D., The Rockefeller Foundation, 113 Avenue of the Americas, New York, N.Y. 10036, USA.

A report of the conference proceedings will be published in a supplement to the Journal of Clinical Epidemiology in 1991.