Drugs

Anita Hardon & Sjaak van der Geest

Hazards of self-medication

A survey in a Philippine village of the treatments administered to children with coughs, colds and diarrhoea by their parents reveals that modern drugs are often incorrectly or unnecessarily used. People are under the strong persuasive influence of commercial interests to purchase remedies that they cannot afford and do not need, and many doctors set a bad example by overprescribing. Steps should be taken to inform the population about rational self-medication and the hazards of present practices.

Little is known about self-care, and in the Third World there has not yet been any systematic research into the distribution and use of drugs at community level. In particular, self-medication with modern pharmaceuticals seems to be a field about which information is scarce.

Treatment of children in a Philippine village

In the Philippines an attempt has been made to fill these gaps. The use of pharmaceuticals for the medication of infants with coughs, colds or diarrhoea by their parents was surveyed in a village of approximately 2000 people on the island of Luzon. All 51 households with children under 1½ years of age completed questionnaires fortnightly over a 5-month period on the illnesses and the use of pharmaceuticals. Respiratory problems were considered severe if a child had a running nose, a dry cough, or a cough associated with white sputum for more than 10 days, or a wet cough with yellow or green sputum for more than 5 days. Otherwise they were categorized as non-severe. Diarrhoea was considered severe if a child had three to five watery stools every 12 hours for more than 5 days, more than five such stools every 12 hours for more than 2 days, or if it was accompanied by fever, vomiting or blood in the stools; otherwise it was categorized as non-severe. Only 15% of the diarrhoea cases and 31% of the coughs and colds were severe. The medicines used in self-medication for non-severe coughs, colds and diarrhoea were evaluated.

The authors are at the Anthropological and Sociological Centre, University of Amsterdam, O.Z. Achterburgwal 185, 1012 DK Amsterdam, Netherlands. Dr Hardon is now undertaking field work on self-medication in two urban communities in the Philippines.

Self-care with modern drugs

Self-care predominated, 80% of the 337 cases of illness having been treated without

consulting a doctor. About half of the instances of self-care involved the use of modern pharmaceuticals, most of which were bought from the chemists in San Pedro, a town about 14 km from the village. However, simple remedies such as analgesics were obtained at the village store. State-supplied drugs were available at the village health centre, which functioned two mornings a week.

In San Pedro there is a choice of state or private doctors. The state medical services tend to be underequipped and private doctors are expensive. In these circumstances the needs of the people are not necessarily met.

The perceived severity of a disorder seemed to influence the choice of therapy. Thus 83% of simple diarrhoeas but only 20% of severe diarrhoeas were self-medicated; 94% of common colds were self-medicated and 61% of severe respiratory disorders were dealt with in this way. The proportions of non-severe coughs, colds and diarrhoeas treated with specific types of pharmaceuticals are shown in the figure.

Irrational medication

Analgesics were extremely popular in the self-medication of non-severe respiratory disorders, often being given three times a day for several days in succession. The people looking after the children seemed to regard analgesics as having curative properties, which was understandable as they probably reduced restlessness and helped the patients through the recovery period.

Furthermore, cough syrups and anti-diarrhoeals were often used. Of the 23 cough syrups, 10 were officially for use on prescription only and 16 were combination products. Six of the latter were considered irrational because they contained a mixture of expectorants (stimulating bronchial secretion) and suppressants (inhibiting coughing) or antihistamines (drying up secretions). Five of the cough syrups contained neomycin, chloroform, ephedrine and other components not generally indicated for use in infant respiratory diseases. The four anti-diarrhoeals, three of them officially for use on prescription only, were all combination products containing antibiotics not indicated for infant diarrhoea *(1)*.

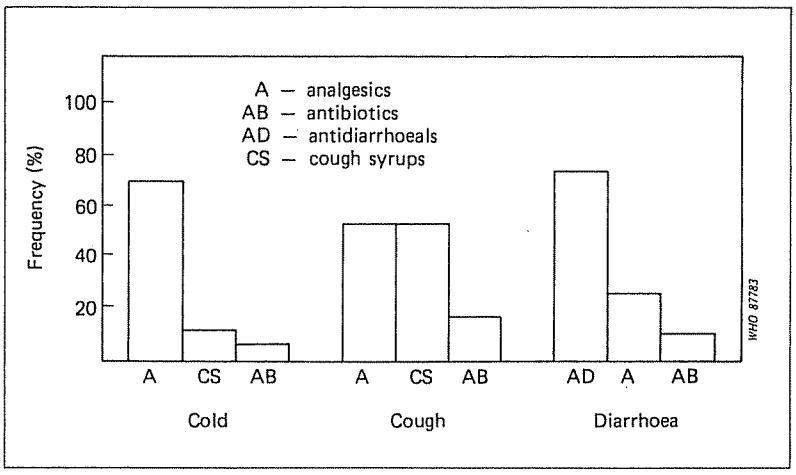
For the non-severe disorders that we evaluated, simple home remedies (oral rehydration, herbal cough mixtures and postural drainage) would have sufficed. The use of combination products is especially dubious, as they are largely non-essential *(2)* and often more expensive than single-compound products. Irrational expenditure on drugs diminishes the amount of money, already insufficient in many families, that can be used for the purchase of food. Only 20% of the infants in this study were adequately nourished.

Health risks

The reliance on modern pharmaceuticals exposed the infants to unnecessary health risks. Of the 23 cough syrups, 11 were unsuitable for infants and all the antidiarrhoeals contained contraindicated antibiotics. An antidiarrhoeal and a popular cold remedy contained neomycin, which has been banned in the Philippines since 1982 because of serious side-effects.

Moreover, the widespread use of antibiotic-containing antidiarrhoeals favours the selection of resistant bacteria. Antibiotics are rarely indicated in non-severe watery diarrhoea *(3, 4)*. The development of

Percentages of cases of non-severe cold, cough and diarrhoea treated with different types of product



resistance leads to increased numbers of deaths from diseases in which antibiotics can be life-saving *(5)*. For example, streptomycin, a component of two of the antidiarrhoeals employed in the study village, is indicated for tuberculosis. The unnecessary administration of antidiarrhoeals containing streptomycin may account for some failures in the treatment of this disease.

Scope for improvement

In order to combat needless expenditure, health risks and bacterial resistance, it is important to consider how drugs are being made available to consumers. In the Philippines some 4000 products are available, mostly over the counter. There are, for example, 185 brands of cough syrup and 95 types of penicillin, yet the World Health Organization recommends only one active component in cough remedies and five penicillins.

A serious problem is that physicians tend to overprescribe and thus set a bad example. Furthermore, modern pharmaceuticals are strenuously promoted through radio and television, chemists' shops, and the entire medical establishment. There is no essential drugs list and no national formulary whereby doctors might obtain objective information. This underlines the crucial role of primary health care programmes and consumer groups in the improvement of drug distribution and use. Grass-roots education should inform people about rational self-medication *(6)* and explain the hazards of present practices. □

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