Dialogue on Diarrhoea



The international newsletter on the control of diarrhoeal diseases

Breaking the drug habit

Medicinal drugs can be life-saving. They have a valuable, but limited, role in the management of some diarrhoeal diseases such as bloody diarrhoea – the subject of a special supplement in this issue. However, even the best drugs can sometimes have unwanted and even harmful side-effects.

DD discusses ways to limit the use of unnecessary drugs in diarrhoea management. There are several different approaches to combating inappropriate use of drugs. These include: laws and regulations; educating health professionals; and campaigns

to raise public awareness.

Consumer groups and health campaigners can alert the government, health workers and the public to misuse of medicinal drugs. This can result in laws or regulations banning the sale of harmful drugs, or removing these drugs from the lists of drugs distributed to government health facilities. This happened with anti-diarrhoeals in the Philippines (page 4) and with paediatric formulations of loperamide – an anti-diarrhoeal that caused the deaths of several infants in Pakistan (page 5).

Can laws against misuse of drugs be enforced? Unless legal action is supported by health workers and the public, then selling of harmful drugs may continue. Health workers need to be trained in the rational use of drugs – how to give the right drug to the right child at the right time.

Doctors are not the only people who prescribe drugs. In many countries, when someone is ill, families turn first to their local pharmacy or drug store for advice and treatment. This has been recognised by WHO which has designed a training course for people who sell drugs in the private sector (page 2).

The general public also needs to know what drugs can and cannot do. People's expectations of the power of drugs have been raised by the discovery of antibiotics that can treat bacterial infections such as meningitis and pneumonia. Many people now believe in a 'pill for every ill', and demand drugs for diarrhoea. However, most childhood diarrhoea is caused by viruses, not treatable with antibiotics. Except for specific cases – such as bloody diarrhoea and cholera with severe dehydration – drugs will not help diarrhoea. With oral rehydration therapy and good feeding, most children will recover well from diarrhoea.

Check your own practice. Are you prescribing unnecessary drugs for diarrhoea? Are local shops and pharmacies near you major providers of advice about diarrhoea? Would they be willing to join a suitable training programme? Can you do anything to limit the ordering of unnecessary drugs in your health centre or hospital?

William Cutting and Katherine Elliott



The inappropriate use of drugs can be a vicious circle.

In this issue:

- Educating private sector drug sellers Pages 2-4
- Consumer action around the world Pages 5–6
- Guidelines on how to deal with epidemic dysentery Centre supplement

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Appropriate Health Resources & Technologies Action Group

Educating drug sellers

Drug stores are often the first places people go to for medical advice. **Robert Hogan** describes a WHO guide to training private sector pharmacists and drug sellers.

When trying to improve management of diarrhoea, it is important to work with all providers of care, not just the government health system.

Many ministries of health run training programmes to improve the way doctors, nurses and community-based health workers manage diarrhoea; but until recently little attention has been paid to private sector drug sellers.

In most countries, private sector pharmacies and over-the-counter drug stores are a common source of advice on health matters. Pharmacies and drug stores are more widespread than public health facilities and are often the first place people go to when they or their children are sick.

But advice given to customers about diarrhoea and products sold are usually inappropriate, and sometimes dangerous. Ineffective anti-diarrhoeal drugs are frequently recommended instead of oral rehydration therapy.

Reasons for this include: lack of knowledge; availability of inappropriate drugs; consumer demand for drugs; inappropriate prescribing by doctors; higher profit margins for anti-diarrhoeal drugs than for ORS; and drug regulations that do not encourage rational use of drugs.

Ideally, a diarrhoeal disease control (CDD) programme would tackle all these factors. But many countries do not have the resources for such a comprehensive strategy. As a first step, WHO has designed a training approach focusing on one key area – improving drug sellers' knowledge.

The approach combines face-to-face communication (trainers meet with drug sellers individually or in small discussion groups), with distribution of printed material (such as pamphlets and posters) promoting correct practice.

A training manual has been field-tested in Kenya (see page 4) and Indonesia. It provides a step-by-step guide to setting up a training programme relevant to local needs.

The following steps are suggested.

1 Learn about how drug sellers treat diarrhoea and why

- Study the system for drug sales: identify drug outlets and sellers; identify the top-selling ORS and anti-diarrhoeal drugs.
- Choose a target audience: identify which type of drug outlet and geographical area to target.
- Use a survey to learn about what drug sellers already know and do.
- Identify factors that influence drug sellers' practices: consult local experts such as the pharmacists' association, the Ministry of Health, pharmaceutical manufacturers; use this information and the survey results to devise key questions and carry out focus group discussions with the target audience.

2 Design and plan a training intervention

- Decide on an intervention: form a working team; use the research already done to work out which key behaviours to change; choose the most appropriate type of educational intervention (e.g. one-to-one visits, small group discussions, see page 3).
- Develop a workplan, including a time schedule.



• Develop printed materials: choose main messages based on earlier research; design materials; pre-test (show the materials to selected people from the target audience, to assess their reaction).

• Train the trainers and pilot test the educational intervention.

3 Carry out the intervention and evaluate results

- Develop a plan for monitoring and evaluation of the training.
- Implement and assess the intervention.

The two field tests have shown that lack of knowledge and skills are important reasons why drug sellers behave as they do. Training that changes knowledge and skills can change behaviour, at least initially.

WHO plans to expand the training intervention to include drug use for acute respiratory infections.

Robert Hogan, CDR, WHO, CH-1211 Geneva 27, Switzerland.

The guide for improving diarrhoea treatment practices of pharmacists and licensed drug sellers was produced by the WHO CDD programme together with ACT International, Atlanta and the Management Sciences for Health Drug Management Programme. Harvard Medical School's Drug Policy Research Group also worked on designing the training intervention. The guide is available to national CDD programmes or other organisations training pharmacists and drug sellers. Write to CDD, WHO, CH-1211 Geneva 27, Switzerland.

Who is the target audience for the training?

Drugs are sold in a wide variety of commercial settings. Outlets include pharmacies, over-the-counter drug stores, supermarkets, variety stores, small neighbourhood shops, kiosks and peddlers. The WHO educational intervention is aimed at outlets whose main business is selling drugs. Field tests concentrated on pharmacies. The intervention is **not** aimed at drug peddlers working in the informal sector.

Staff who work in drug outlets vary from country to country - they include:

- pharmacists who are graduates of university degree programmes
- · assistant pharmacists who often have post-secondary school diplomas
- dispensers who have formal training and have served a technical apprenticeship
- sales clerks who are usually literate, but have no formal training.



OHM

A choice of training methods

The WHO guide describes three main approaches to training drug sellers. Different methods will suit different local circumstances and resources.

One-to-one education

Health education studies and over 100 years' experience of commercial drug marketing show that visits by educators to drug stores and pharmacies can be a very effective way to change the behaviour of staff who work in them.

This approach is sometimes called 'educational outreach'. Trained educators from respected organisations (such as professional associations, universities or ministries of health) visit drug sellers to offer objective advice and give support for improving treatment decisions.

Educators should plan two visits to each drug seller targeted. On the first visit the educator describes the different types of diarrhoea, then discusses with the drug seller the causes and treatment of dehydration, and the advantages and disadvantages of different drugs.

Specific, easy-to-remember recommendations are emphasised and reinforced at the beginning and end of each visit. Printed educational materials are left with the drug seller to be pinned on a wall or kept for reference on the counter or desk.

A single visit is unlikely to bring about lasting change. A follow-up visit should be made to remind the drug seller about key messages, and to allow discussion of practical problems (for example, how to overcome customer demand for antibiotics).

Strengths

- One-to-one training approaches are more memorable to the person being educated, so important facts and recommended behaviours are more likely to be remembered.
- Education can be targeted to the individual needs and problems of each drug seller through discussion of his or her experience.
- Educators can reach the target audience at their workplaces without having to persuade them to travel to a meeting.

Weaknesses

- The costs of visiting every targeted drug store may be high. It may be difficult for a few educators to contact drug sellers in a widely dispersed area.
- There may not be a quiet place in the store for an uninterrupted discussion, and there may not be enough time for a good discussion.



One-to-one education

Small group discussions

Groups of six to eight drug sellers are invited to an informal meeting for a presentation by a trained educator followed by a discussion. The meeting lasts 1–2 hours and should take place in a quiet place close to the drug sellers' workplaces. Incentives such as snacks could be provided to encourage participation.

Strengths

- It costs less since 6–8 people are educated in one meeting.
- Drug sellers may find it easier to speak honestly about their practices in the presence of other participants from a similar background.
- Better informed participants may influence others to change their behaviour.

Weaknesses

- It may be difficult to persuade people to take time off work to attend a meeting. More co-ordination is required to get everyone to the same meeting.
- Drug sellers may feel a sense of competition and not want to co-operate in a group.
- The person attending the meeting may not be the person selling ORS or drugs, and they may not take the message back to their colleagues or staff.

Larger training seminars

Some health professions already organise continuing education programmes. Similarly, groups of 10–30 pharmacists and drug sellers could be invited to a large formal training seminar. After a presentation, participants could break into small groups to discuss particular topics.

Strengths

- Many organisations already have experience of conducting large training seminars. Respected experts may be willing to address a session.
- Trainers reach a greater number of people at one time, so less time and money is required.

Weaknesses

- Drug sellers who most need to change their practice may not attend.
- Achieving active participation in large meetings is more difficult.
- Messages cannot easily be targeted to individual problems.



Small group discussion

Working with pharmacists in Kenya

Pradeep Goel, Joseph Makhulo and Gitau Mwangi describe Kenya's experience of field-testing a WHO guide on training private sector pharmacists.

A typical urban retail pharmacy in Kenya is visited by anywhere between 10 and 99 customers a day with health problems but no prescription from a doctor. In small towns with fewer doctors, the number may be even greater.

Kenya's diarrhoeal disease control (CDD) programme used the WHO guide (page 2) to carry out a training programme to improve advice given by pharmacists and their assistants about managing diarrhoea.

From the start, the CDD programme involved the Pharmaceutical Society of Kenya, the Kenya Medical Training Center and the University of Nairobi.

Kenya's capital, Nairobi, and five other towns were chosen as sites for the training programme. The range of training methods included: one-to-one discussions with an opinion leader within a pharmacy (e.g. pharmacy owners); one-to-one discussions with pharmacists; and small group training sessions for pharmaceutical assistants. Four types of printed materials were used after pre-testing: two pamphlets for pharmacy staff (one on ORS and the other on anti-diarrhoeals); a general pamphlet for customers; and a wall poster.

Small group training sessions were found to be the most effective method because, unlike in large seminars, attention could be paid to individual needs. Importantly, small groups allowed discussion of constraints in applying recommendations. Role plays on advising customers were acted out.

The pilot phase of the training has been completed: 162 pharmaceutical assistants in 90 pharmacies have received training. Initial evaluation shows promising results. Questionnaires given to participants before and after training showed that training increased overall knowledge. Purchase surveys in five towns showed that ORS sales increased by 24–32 per cent, while sales of anti-diarrhoeals decreased by 6–12 per cent.

Several lessons can be learnt from Kenya's experience.

- It is important to find out why drug sellers behave as they do. In some cases, drug sellers may have adequate knowledge, but motivation may be the problem. Working out what sort of training will best meet the needs identified is also crucial.
- Pharmacy staff prefer the training to come from an independent and credible

organisation (such as WHO or UNICEF). The training should not appear as a threat. It is important to involve the professional association of pharmacists. The involvement of organisations and individuals outside the CDD programme is vital.

• Producing printed materials is one of the most expensive parts of the intervention. Therefore, only one or two carefully designed printed materials should be used to convey the training messages. Dr Pradeep Goel, Dr Joseph Makhulo and Dr Gitau Mwangi, C/o Drug Management Programme, MSH, 165 Allandale Road, Boston MA 02130, USA.



Kenya's poster message

Regulation plus education

Elvira Dayrit and Juanita Basilio report on tough action in the Philippines to curb the irrational use of drugs.

household survey in 1987 in the Philippines showed that drugs were used in at least 55 per cent of cases of childhood diarrhoea. The Department of Health was the biggest purchaser and user of anti-diarrhoeals.

As a result of these findings, major changes were made to the systems of drug procurement and distribution in 1988–9.

The purchase and prescription of antidiarrhoeals in government health facilities were banned. Amoebicides were delisted from regular government procurement lists and can now only be prescribed after laboratory diagnosis. All paediatric forms of loperamide and diphenoxylate were deregistered by the Philippine Bureau of Food and Drugs, effectively banning them from both private sector drug stores and government health facilities. Requirements for registration were made more difficult for all anti-diarrhoeals. Advertising of loperamide to the general public was also banned.

As well as legal changes, an educational campaign for doctors, nurses and pharmacists was launched. A national workshop involving a range of health organisations resulted in the following activities:

• Pharmacology, microbiology, parasitology and pathology departments belonging to the Association of Philippines Medical Colleges developed curricula to promote rational drug use.

- Philippines Medical Association chapters held workshops; conducted outreach education activities for families; showed films in hospitals; and organised media campaigns on oral rehydration therapy.
- The Philippine Pharmaceutical Association incorporated 'responsible dispensing in acute diarrhoea' in their continuing education programmes for community pharmacists.
- Several NGOs held seminars on rational drug use. Volunteer community health workers of these NGOs also received training on rational drug use.

Three years after the initial household survey, surveys in selected cities showed a reduction in drug use for diarrhoea from 55 per cent of cases to 36 per cent. As a result of tighter rules for drug registration, the number of anti-diarrhoeal brands on the market was reduced from 206 brands in 1987 to 56 brands in 1992.

The national action was successful because it was taken up by many different organisations, not just the Department of Health. It also happened at a time when there was widespread professional and political support to tackle drug misuse. Dr Elvira Dayrit and Dr Juanita Basilio, Maternal and Child Health Service,

Maternal and Child Health Service, Department of Health, San Lazaro Compound, Santa Cruz, Manila, The Philippines.

North-south network

International campaigns to stop the promotion of dangerous drugs can be very effective, as *Catherine Hodgkin* of *Health Action International* explains.



A nutritious diet and clean water are often the best 'medicines'.

n 1981 health, development, consumer and public interest groups around the world formed a network – Health Action International (HAI) – to co-ordinate campaigns on drug issues and to facilitate exchange of information internationally. Since then, the network has grown to include about 150 HAI member groups in 60 countries.

Anti-diarrhoeal drugs were the target of HAI's first international campaign because of their widespread inappropriate use. Over the past 12 years many HAI groups have been actively involved in promoting oral rehydration and challenging the use of inappropriate drugs. By working together internationally, groups within the network have made an impact which individual groups could not have achieved.

In 1990 British television screened a documentary showing how infants in a hospital in Pakistan were dying of bowel paralysis caused by loperamide (Imodium). The programme also highlighted the negative effects of bottle-feeding. The doctor featured in the documentary, Professor Tariq Iqbal Bhutta, was a member of the HAI network and had been active in drawing the world's attention to the problem.

Following the TV programme, backed up by a campaign being waged by a number of organisations internationally, paediatric formulations of loperamide were withdrawn worldwide. Many countries, including Pakistan, took regulatory action to limit the availability of anti-diarrhoeals.

The press materials and briefing pack developed by HAI to follow up Professor Bhutta's work resulted in studies on the use of anti-diarrhoeals in Finland, France and the UK. In Bangladesh, an HAI member group undertook a major promotion of the WHO guidelines on rational drug use. In India the TV film was used to train medical students. Next year the film will be shown at CDD training courses in Vietnam.

In Latin America, a campaign co-ordinated by the regional HAI network, Acción International para la Salud (AIS) helped to achieve deregistration of anti-diarrhoeals in Peru and Mexico. Groups belonging to AIS have produced educational materials for prescribers and consumers, including treatment guidelines, posters, comic books for children and a resource book for groups working against anti-diarrhoeals.

Concern about the misuse of drugs for managing diarrhoea is also being voiced in the United States where several anti-diarrhoeals in common use internationally are produced. A US consumer group, Public Citizen, petitioned the US Food and Drug Administration (FDA) to withdraw the licences of anti-diarrhoeals. The FDA was

targeted not only because of the problem of inappropriate use of drugs in the US, but also because a US licence is often seen as a 'passport' to registration in other countries. The FDA is still considering the petition but is likely to recommend changes in the licence provisions of several anti-diarrhoeals.

As well as involving member groups of its network, HAI frequently works in cooperation with other organisations such as WHO, UNICEF, associations of health professionals and other relevant groups such as the Medical Lobby for Appropriate Marketing (page 6).

Catherine Hodgkin, Co-ordinator HAI Europe, Jacob van Lennepkade 334-T, 1053 NJ Amsterdam, The Netherlands.

Other HAI regional co-ordinating offices are: HAI Clearinghouse, c/o IOCU, PO Box 1045, 10830 Penang, Malaysia.

AIS Latin America, Avda. Palermo 531, Dpto. 104, Lima 13, Peru.

Problem Drugs – a campaign and information pack produced by HAI

Problem Drugs (revised and updated in 1993) contains well-documented and up-to-date information sheets on many types of drugs including anti-diarrhoeals. It highlights examples of unethical marketing and gives clear recommendations for action.

Available from: HAI Europe (see address above). Price: D.fl. 30 plus D.fl. 5 for postage. Reduced rates available for groups in developing countries, HAI members and bulk orders. Please write for details.

Other organisations

INRUD (International Network for Rational Use of Drugs)

The International Network for Rational Use of Drugs (INRUD) is an organisation of health professionals, administrators and researchers in developing countries who wish to undertake innovative programmes to improve the use of drugs. INRUD provides a forum to communicate, exchange information and ideas, co-ordinate research, develop human resources and link projects with interested donors. The network links groups in both Africa and Asia, including organisations in Nigeria, Ghana, Tanzania, Uganda, Zimbabwe, Nepal, Bangladesh and Indonesia.

For more information about INRUD, please contact: Dr Richard Laing, INRUD Co-ordinator, Management Sciences for Health, 165 Allandale Road, Boston, MA 02130, USA.

Successful campaign

Zafar Mirza explains how a campaign against drug misuse in one country can lead to action in the rest of the world.

Pakistan. The problems include: inefficient mechanisms for drug registration; lack of quality control of drugs; easy access to all types of drugs without prescription; untrained sales staff at medical stores; inappropriate prescribing by doctors; unethical drug promotion and misleading information by the pharmaceutical industry; prescribing by quacks; and self-medication.

Two years ago a group of concerned health workers and members of the public set up the Network of Association for Rational Use of Medication in Pakistan, to try to combat drug misuse.

A founding member of the network, Professor Tariq Iqbal Bhutta, was already well known internationally for his campaigning work against loperamide (see page 5). The network is working on documenting the campaign so that other countries can learn from the experience.

Campaigning against harmful drugs is still an important part of the network's work. Last year, Piptal paediatric drops (pipenzolate bromide and phenobarbitone) were deregistered following a network-led campaign.

Piptal drops (promoted for treating colic in infancy) had been deregistered in 1990 along with loperamide. The drug combination in Piptal drops can cause abdominal distension and sleepiness, and has been linked to the deaths of two infants in Pakistan. However, in 1991 the drops were reregistered following lobbying by the manufacturer. The network alerted MaLAM (see below), and international pressure resulted in the Ministry of Health deregistering the drops again.

Through its quarterly newsletter, the network now reaches around 10,000 supporters. The network's activities are wide-ranging – including education, information provision, campaigning and research. The network recently received recognition from WHO and

Pakistan's Ministry of Health when it was asked to review the country's

diarrhoeal disease control programme.

The network has become the best independent source of information about drugs in Pakistan. An enquiry service to reply to members' requests for information on specific drugs has recently been launched. The network plans to become involved in consumer education next year.

Irrational drug use is a complex problem, and Pakistan has made a step in the right direction. It is important that drug use continues to be monitored and public awareness raised. There is still a long way to go before rational drug use is a reality.

Dr Zafar Mirza, The Network Co-ordinator, House no. 57, G-8/2, Islamabad, Pakistan.



John Appleby reports on the *Medical Lobby for Appropriate Marketing (MaLAM)*, an international group campaigning for honest advertising of medicines.

Misleading advertising of drugs is a serious problem worldwide. A survey of drug advertisements in five journals carried out by the Australian Society of Clinical and Experimental Pharmacologists in 1985 and 1986 found that 31 per cent of advertisements were misleading or contained unjustifiable claims.

Although many doctors deny that advertising influences them, controlled trials have shown that advertising techniques are more effective at influencing prescribing behaviour than methods used in medical education.

Misleading marketing is more common in Africa, Asia and Latin America than in industrially developed countries. Yet in developing countries, where less money is available for medicines, and mortality rates are relatively high, the need for accurate information about appropriate use of drugs is greater.

The Medical Lobby for Appropriate Marketing (MaLAM) was set up in 1983 to monitor drug promotion and lobby for improved standards. MaLAM's headquarters

are in Australia, but it has members in more than 30 countries, and branches in seven countries.

It works by providing information to subscribers (who are mainly, but not exclusively, health workers) and encouraging them to question drug companies about specific promotional practices.

Supporters send in examples of misleading advertisements, and each month MaLAM sends a letter to subscribers focusing on a particular drug. A form letter addressed to the relevant drug company is included in the mailing. If the MaLAM subscriber agrees with the letter, they are asked to sign it and send it directly to the company, asking for a personal reply to a series of questions.

Through this technique, a few minutes of each subscriber's time can put considerable pressure on a drug company. Letter campaigns by MaLAM have had several successes, including contributing to Upjohn promising to phase out the marketing of Kaomycin (containing neomycin, kaolin

and pectin) for acute diarrhoea in children by May 1992. However, questionable advertisements are still appearing in some countries.

Although many drug companies continue to make unjustifiable claims about their products, health workers' awareness of the need for better information is growing. Companies are beginning to realise that they have to use scientific evidence to support claims about medicines or they will lose credibility with drug prescribers.

John Appleby, Co-ordinator, MaLAM UK, 12 Hugill Street, Bradford BD13 3JW, UK.

Other branches of MaLAM include: MaLAM International HQ, PO Box 172, Daw Park, SA 5041, Australia.

MaLAM-India, Siddartha Medical College, Vijayawda 520 008, Andhra Pradesh, India. MaLAM-Pakistan, C/o Dr H Carmichael, Women's Christian Hospital, 85 Nusrat Road, Multan CANT 60000, Pakistan.

MaLAM-Sri Lanka, C/o SIRHA, Dept. of Pharmacology, Faculty of Medicine, Kinsey Road, Colombo 8, Sri Lanka.

Guidelines on drug use for children with diarrhoea

When to use drugs

ANTIBIOTICS should only be used for:

- dysentery (bloody diarrhoea see centre supplement), or
- suspected cholera when there is severe dehydration.

Otherwise, they are ineffective and should **not** be given.

ANTI-PARASITIC drugs should **only** be used for:

- amoebiasis, if (in the case of bloody diarrhoea) antibiotic treatment for *Shigella* has failed, or trophozoites of *E. histolytica* (the active amoeba form) containing red blood cells are seen in the faeces
- giardiasis, when diarrhoea has lasted 14 days or more and cysts or trophozoites of *Giardia* are seen in the faeces or small bowel fluid.

Key drugs to avoid

ANTI-DIARRHOEAL drugs and ANTI-EMETICS should never be used. None has proven practical value. Some are dangerous.

The following drugs, commonly misused to treat diarrhoea, should **not** be given to children with diarrhoea:

- Loperamide Generic name: loperamide hydrochloride Some brand names: Imodium, Arret, Imosec, Loperium, Vacontil, Lopemid
- **Diphenoxylate** Generic name: diphenoxylate hydrochloride with atropine sulphate

Some brand names: Lomotil, Reasec, Lyspafen

Hydroxyquinolines

Drugs containing: clioquinol (iodochlorhydroxyquin), iodoquinol (di-iodohydroxyquin), or broxyquinoline Some brand names: Entero-Vioform, Mexaform

Non-absorbable sulphonamides

Examples: sulphaguanidine and sulphaphthalazole

Adsorbents

Examples: kaolin, pectin, attapulgite and smectite

Anti-diarrhoeals containing antibiotics

Examples: mixtures containing neomycin or streptomycin

For more information about drug use for diarrhoea see DDs 42, 43 and 44, and the Drugs and Diarrhoea supplement in DD50.

Regulatory actions against anti-diarrhoeals taken around the world in 1990-92

COUNTRY	DRUGS AFFECTED	ACTION	DATE
France	Brand-name paediatric product containing loperamide	Restriction on use in children	August 1991
India	Fixed-dose combinations of kaolin-pectin with absorbable drugs	Sale and manufacture banned	February 1991
Indonesia	Paediatric formulations of loperamide	Banned	November 1990
	94 brand-name anti-diarrhoeal products containing antibiotic mixtures, hydroxyquinolines, non-absorbable sulphonamides, and other substances	Deregistration of solid and liquid formulations	October 1991
Lebanon	All products containing loperamide, diphenoxylate, diphenoxine and furazolidone All liquid forms of streptomycin	Restriction on use in children, deregistration and banning of products	August 1991
Libyan Arab Jamahiriya	10 brand-name anti-diarrhoeal products, which include substances such as anti-motility drugs, anti-microbials, and adsorbents	Use in children banned	May 1990
Mexico	5 brand-name paediatric products, containing loperamide and diphenoxylate	Deregistered	December 1990
Nepal	Liquid preparations of diphenoxylate and loperamide	Import and export banned	August 1991
	Several combination drugs used as anti-diarrhoeals	Production and sale banned	February 1992
Pakistan	3 brand-name combination drugs used as anti-diarrhoeals	Deregistered	1989-90
	Drop and syrup forms of loperamide, diphenoxylate and pipenzolate	Banned and withdrawn from market	June 1990
Peru	Paediatric formulations of loperamide	Deregistered	October 1990
Philippines	Loperamide and diphenoxylate	Deregistered	September 1991
Republic of Korea	Loperamide	Restriction on use in children	May 1991
Sri Lanka	Syrup formulations of loperamide	Deregistered	November 1990
Thailand	Liquid preparations of diphenoxylate	Deregistered	February 1992
	Liquid preparations of loperamide	Deregistered	March 1992
Turkey	Drop and syrup formulations containing loperamide	Banned	September 1991

Prescribing habits changed

As a result of reading *DD* over the past 12 years I have really changed my prescribing habits. I have learnt that about 90 per cent of my patients do not need antibiotics. Most diarrhoea is self-limiting. All that most patients require is the replacement of lost fluids and electrolytes.

Michael Chilembo, Clinical Officer, Tazara Residential Clinic, Mpika, Zambia.

Are laboratory tests needed?

As a registered nurse, I am very aware that the first line of treatment for diarrhoea is rehydration. However, DD does not explain whether there is any need to find out the cause of diarrhoea through laboratory analysis of a stool sample.

If the diarrhoea is a result of bacteria, then giving oral rehydration alone is not enough. It would be like leaving a water tap on, while trying to sweep up the water. The tap has to be turned off.

Shuka Balewa Tsams, General Hospital, Kaltungo, Bauchi State, Nigeria.

Dr Nathaniel Pierce, CDD, WHO replies: It is tempting to think that diarrhoea is caused by infection, therefore it should be treated with an antibiotic. But several studies have shown that the routine use of antibiotics for treating diarrhoea has no benefit, and may cause serious side effects.

Why are antibiotics ineffective? First, many episodes of diarrhoea are caused by viruses or protozoa (or even some bacteria) for which no antibiotic is effective. Second, even when a bacteria treatable by an antibiotic is the cause, it is usually not possible to determine which antibiotic should be used. Very few laboratories in the world can identify all types of bacteria that cause diarrhoea, and even these take several days to give an answer.

There are two situations, however, where antibiotics are effective and should be given. The first is children with bloody diarrhoea (see centre supplement). The second is anyone with suspected cholera and severe dehydration. In both cases, an antibiotic can help to shorten the illness.

Better business in drugs

Parents complain that ORS is not a medicine to stop diarrhoea. If a doctor gives ORS only, then parents change to a doctor who will prescribe drugs. Doctors who recommend drugs are getting more business. What can be done to stop this?

Dr M D Sayedul Haq, PO Box 306, Bojnord, Khorasan, Iran.

Dr Pierce replies:

Doctors should help parents understand what to expect during an illness, and how treatment will help. For acute diarrhoea, they should explain that the illness will

soon stop by itself and that drugs cannot make it stop any earlier; that they are a waste of money and may have dangerous side effects. It should be explained that ORS solution will help the child to feel stronger and eat better even before the diarrhoea stops. Doctors should ask the parents to bring the child back if he or she shows danger signs (poor eating or drinking, passing of many watery stools, severe thirst, frequent vomiting, fever, blood in the stools, no improvement), and make it clear that they would be happy to see the child again if the parents are worried.

It should also be mentioned that doctors have an obligation to treat patients correctly, regardless of what patients may demand or other doctors practise.

Drug peddling in Nigeria

Antibiotic abuse is a serious problem here. Imagine drug sellers with little education, let alone medical knowledge, peddling antibiotics in the street, just like any other market commodity. Such people are allowed to perform the role of doctor, pharmacist, laboratory scientist and nurse.

These peddlers rarely sell more than a single dose at a time, promising it will work miracles. Storage conditions are far from ideal with sensitive drugs being subjected to harsh sunlight and high temperatures.

Amizan Mohammed Barau, Pharmacist, Murtala Mohammed Specialist Hospital, Kano, Nigeria.

Mr Robert Hogan, CDD, WHO replies:

Mr Barau is right to be concerned about the selling of drugs by unlicensed and untrained drug peddlers. This practice is extremely dangerous and local authorities should take steps to stop such practices. Professional associations, such as pharmacists' organisations, may encourage such actions.

The public also needs to be informed of the danger of taking drugs without a doctor's advice; the risks of taking the wrong drug or drugs of dubious quality; and the importance of taking the correct dose for the right number of days.

NGO nutrition strategies

DD53 incorrectly stated that an NGO working group was set up by the International Conference on Nutrition (ICN) in 1992. The group referred to in DD involved NGOs with representatives in Switzerland. On the other hand, a large percentage of NGOs attending the conference belonged to the ICN NGO Consortium, an international grouping which was responsible for valuable NGO contributions to the Declaration and Plan of Action.

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Dialogue on Diarrhoea

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