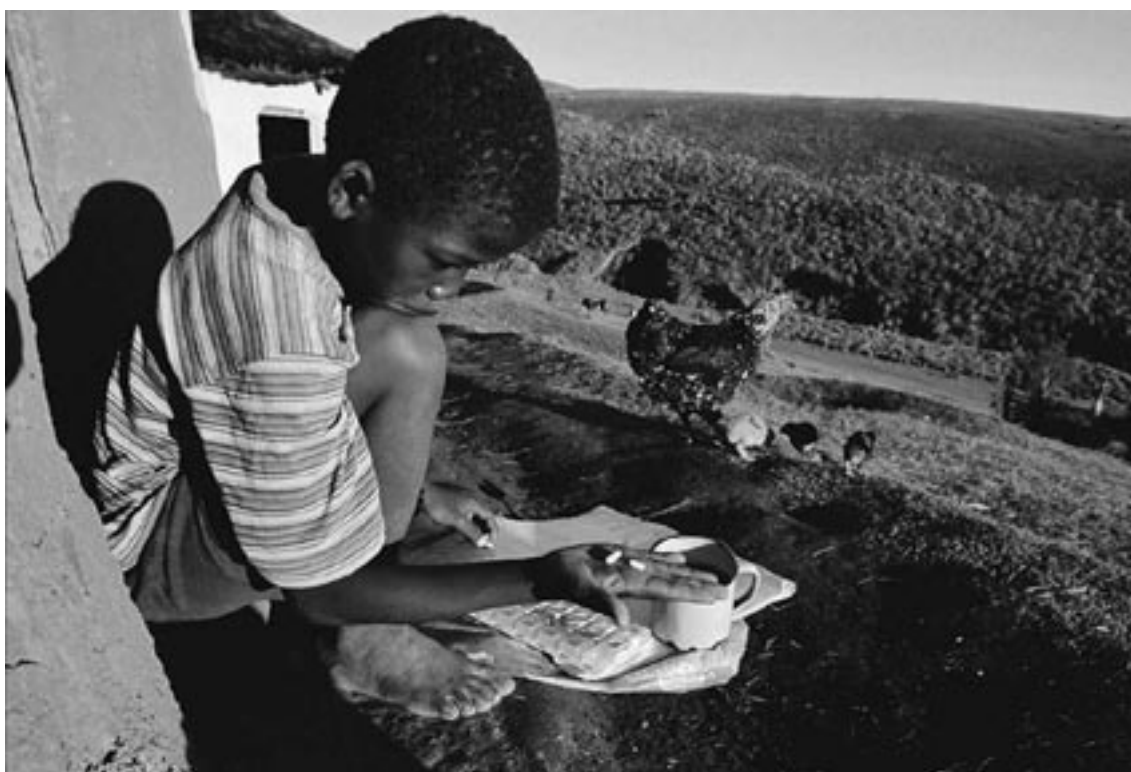


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PROMOTING RATIONAL USE OF MEDICINES



Editorial

- 2 Understanding rational use of medicines**

Features

- 5 Policies and structures to ensure rational use of medicines**
9 Strategies to promote rational use of medicines

Opinions

- 10 Making the best use of medicines**
12 How “rational” is our use of medicines?

Commentaries

- 14 Lures to irrational use of medicines**

No **183**
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2006

- 17 Factors influencing consumer use of medicines**

Experiences

- 22 The challenge of rational use of medicines in NIS**
25 Promoting rational use of medicines in Peru
28 Sensitizing the public in Burkina Faso about street medicines
31 Bible Study
32 Titles of Resources

UNDERSTANDING RATIONAL USE OF MEDICINES

Rational use of medicines requires that “patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community.”¹

The proportion of national health budgets spent on medicines ranges between 10% and 20% in developed countries and between 20% and 40% in developing countries

More than 50% of all medicines worldwide are prescribed, dispensed, or sold inappropriately and 50% of patients fail to take them correctly.² Conversely, about one-third of the world's population lacks access to essential medicines. Treatment with medicines is one of the most cost-effective medical interventions known, and the proportion of national health budgets spent on medicines ranges between 10% and 20% in developed countries and between 20% and 40% in developing countries. Thus, it is extremely serious that so much medicine is being used in an inappropriate and irrational way.

Irrational use

Common types of irrational use of medicine are:

- the use of too many medicines per patient (polypharmacy);
- inappropriate use of antibiotics, often in inadequate dosage, for non-bacterial infections;
- over-use of injections when oral formulations would be more appropriate;
- failure to prescribe in accordance with clinical guidelines;
- inappropriate self-medication, often of prescription-only medicines.

Consequences

Lack of access to medicines and inappropriate doses result in increasing morbidity and mortality, particularly for childhood infections and chronic diseases such as hypertension, diabetes, epilepsy and mental disorders.

Inappropriate use and over-use of medicines is a waste of resources – often out-of-pocket payments by patients. It also results in significant patient harm in terms of poor patient outcomes and adverse drug reactions.

The over-use of antibiotics is leading to increased antibiotic resistance while the

use of non-sterile injections is leading to the transmission of hepatitis, HIV/AIDS and other blood-borne diseases. Irrational use of medicines can stimulate inappropriate patient demand, and lead to reduced access and attendance rates due to medicine stock-outs and loss of patient confidence in the health system.

Monitoring the use of medicines

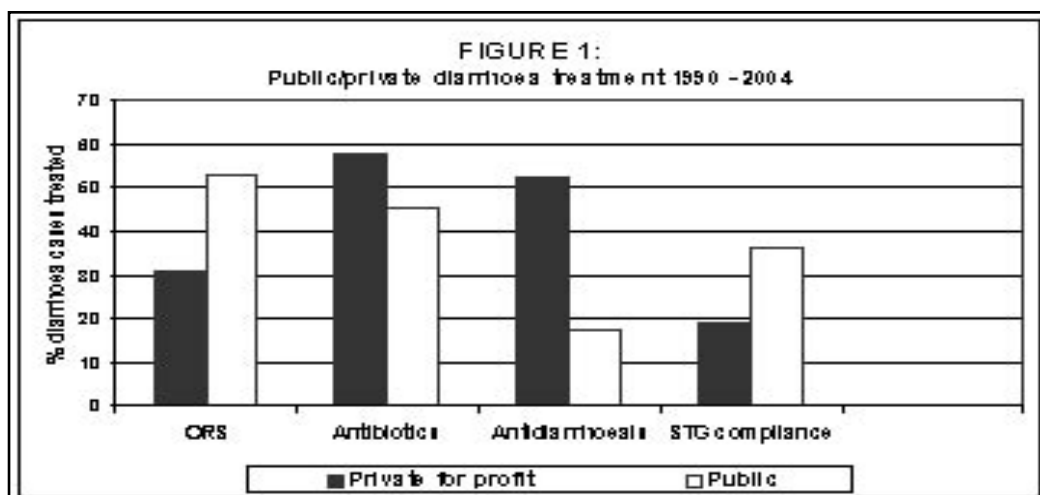
From 1990 to date, the World Health Organization (WHO) has created a database of more than 700 published and unpublished surveys of medicine use carried out in developing countries and countries with economies in transition. Results from this database were initially presented at the second International Conference on Improving the Use of Medicines (ICIUM) that took place in Thailand in 2004.³ Some updated results from this database indicate that the use of medicines has remained much the same, slightly increasing over the last 15 years. The results further indicate that in Africa, Asia and Latin America, only about 40% of all patients were treated in accordance with clinical guidelines.

Figure 1 shows the treatment of acute uncomplicated diarrhoea in the private-for-profit and public sectors. Generally, such cases should be treated with oral rehydration solution alone and not with antibiotics or anti-diarrhoeal drugs. However, the data clearly show that many cases are treated unnecessarily with antibiotics and anti-diarrhoeal drugs and that this is more so in the private compared to the public sectors. Less than 40% in the public sector and 20% in the private sector were treated in compliance with clinical guidelines.

Towards rational use of medicines

The first step to correcting irrational use of medicines is to measure it. Indeed, prescribing, dispensing and patient use should be regularly monitored in terms of:

- the types of irrational use of medicines, so that strategies can be targeted to-



wards changing specific problems;

- **the amount** of irrational use, so that the size of the problem is known and the impact of the strategies can be monitored;
- **the reasons** why medicines are used irrationally, so that appropriate, effective and feasible strategies can be chosen.

People often have very rational reasons for using medicines irrationally. Causes of irrational use include lack of knowledge, skills or independent information, unrestricted availability of medicines, overwork of health personnel, inappropriate promotion of medicines and profit motives from selling medicines.

In the last 20 years progress has been made to promote rational use of medicine. In 1977 WHO established the first Model List of Essential Medicines to assist countries to formulate their own national lists. In 1985, the present definition of rational use was agreed to at an international conference held in Kenya. In 1989, the International Network for the Rational Use of Drugs (INRUD) was formed to conduct multi-disciplinary intervention research projects to promote more rational use of medicines. Following this, the WHO/INRUD indicators to investigate drug use in primary health care facilities were developed and many intervention studies conducted.

A review of all the published intervention studies with adequate study design was presented at the first ICIUM in Thailand in 1997.⁴ A summary of the magnitude of prescribing improvement by type of intervention shows the effect varied with intervention type. Printed materials alone had little impact compared to the greater effects associated

with supervision, audit, group process and community case management. Furthermore, the effects of training were variable and often unsustained, possibly due to differences in training quality and the presence or absence of follow-up and supervision.

The review of intervention impact carried out for ICIUM 1997 is presently being revised using the data from the WHO database on drug use surveys. Of the 700 surveys included in this database, less than half were conducted in order to evaluate the impact of an intervention or strategy to promote more rational use of medicines. Thus, relatively few interventions aimed at promoting rational use of medicines have been implemented and evaluated. Most of these interventions were introduced only at the local level and only about 20% of them were adequately evaluated for their impact on medicines use.

Although we know from the first review in 1997 that some of the most effective and sustainable interventions combine managerial and economic strategies, still only 25% of interventions being reported are managerial or economic, the rest being educational in nature.

In 2004, the second ICIUM was held in Thailand⁵. All the evidence presented at the conference made it clear that the misuse of medicines continues to be widespread and has serious health and economic implications, especially in resource-poor settings.

Although many promising and successful interventions were presented at ICIUM 2004, global progress seems to be confined primarily to demonstration projects. There were few reports of effective national efforts to improve the

Relatively few interventions aimed at promoting rational use of medicines have been implemented and evaluated

use of medicines on a large scale and in a sustainable manner. Three major recommendations were made at the conference:

① Countries should implement national medicines programmes to improve medicines use and these programmes should:

- be long-term (since implementation takes time, continued stakeholder commitment and adequate human resources is crucial);
- cover all levels of health care in public and private sectors;
- be based on local evidence from inbuilt monitoring system;
- separate prescribing and dispensing functions (since there is evidence that prescribers who dispense tend to prescribe more medicines and more expensive medicines than those prescribers who do not sell medicines);
- extend broad-based insurance coverage (since insurance systems have a strong incentive to monitor use of medicines and curtail unnecessary over-use);
- measure drug prices which influence access to medicines;
- avoid flat patient visit fees which encourage polypharmacy;
- encourage generic prescribing and dispensing policies provided there are drug quality assurance programmes.

② Successful interventions should be scaled up and their impact regularly monitored e.g.

- Prescription of 3-day antibiotic therapy for pneumonia which is just as effective as 5 days;
- Use of multi-faceted coordinated interventions which are more effective than single ones;
- Implementation of structured quality-improvement processes possibly through Drug and Therapeutic Committees.

③ Interventions should address community medicines use by:

- improving patient adherence as an integral part of global treatment programmes;
- encouraging school programmes that

teach about how to use medicines;

- regulating pharmaceutical promotion (much of which continues to be excessive and inappropriate in many low and middle-income countries);
- evaluating medicines use in chronic diseases and how to promote more cost-effective long-term use.

The future

Irrational use of medicines continues to be a serious and widespread public health problem. However, rational use of medicines for all medical conditions is fundamental to the provision of universal access to adequate health care, satisfaction of health-related human rights and attainment of health-related Millennium Development Goals. It is therefore crucial that measures be taken to improve the rational use of medicines.

Following the evidence presented at ICIUM 2004 rational use of medicines was debated at the World Health Assembly in May 2005 and the resultant draft resolution was set to be debated at the next WHO Executive Board meeting in January 2007. Further debate of the resolution will be at the World Health Assembly in May 2007⁶. Hopefully a WHO resolution may galvanize governments, donors, non-governmental organizations and the international community to invest more resources and effort in promoting rational use of medicines.

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References:

- 1 World Health Organization. *The Rational Use of Drugs. Report of the Conference of Experts*. Geneva: World Health Organization; 1985.
- 2 World Health Organization *Promoting rational use of medicines: core components*. WHO Policy Perspectives on Medicines no. 5. Document WHO/EDM/2002.3. Geneva, WHO, 2002. Available at URL: <http://www.who.int/medicines>
- 3 International Network for the Rational Use of Drugs (INRUD), 2nd International Conference for Improving the Use of Medicines (ICIUM 2004), *Policies and Programmes to Improve Use of Medicines: Recommendations from ICIUM 2004*, URL: <http://mednet3.who.int/icium/icium2004/recommendations.asp>
- 4 World Health Organization, "International Conference for Improving the Use of Medicines", *Essential Drugs Monitor*, 1997; 23:6-12.
- 5 World Health Organization, *Database on medicines use in developing and transitional countries*; work in progress. Department of Medicines Policy and Standards, WHO, Geneva. Initial results presented at the 2nd International Conference for Improving the Use of Medicines, Chiang Mai, 2004. Available at URL: <http://www.icium.org>
- 6 World Health Organization, *Rational use of medicines: progress in implementing the WHO medicines strategy*, EB118/6, 2006; WHO Geneva; URL: http://www.who.int/gb/eb/e_eb118.html



POLICIES AND STRUCTURES TO ENSURE RATIONAL USE OF MEDICINES

From the work of the past 20 years and the evidence presented at two international conferences on improving the use of medicines (ICIUM 1997 and 2004), much is known about how to promote rational use of medicines. Based on this evidence, WHO has developed recommendations for twelve core national policies and structures that are needed to promote rational use of medicines. These structures

1 A mandated multi-disciplinary national body to coordinate medicine use policies

Many societal and health system factors, as well as professionals contribute to how medicines are used. Therefore, a multi-disciplinary approach is needed to develop, implement and evaluate interventions to promote more rational use of medicines. A national regulatory authority (RA) is the agency that develops and implements most of the legislation and regulation on pharmaceuticals. However, ensuring rational use requires coordination with other stakeholders in more activities than those normally covered by RAs. Thus a national body is needed to coordinate policy and strategies at national level, in both the public and private sectors. The form this body takes may vary with the country, but in all cases it should involve government (ministry of health), the health professions, academia, the RA, pharmaceutical industry, consumer groups and non-governmental organizations involved in health care. The impact on medicine use is better if many interventions are implemented together in a coordinated way, single interventions often having little impact.

2 Clinical guidelines

Clinical guidelines (standard treatment guidelines, prescribing policies) consist of systematically developed statements to help prescribers make decisions about appropriate treatments for specific clinical conditions. Evidence-based clinical guidelines are critical to promoting rational use of medicines. Firstly, they provide a benchmark of satisfactory diagnosis and treatment against which a comparison of actual treatments can be made. Secondly, they are a proven way to promote more rational use of medicines provided they are:

- developed in a participatory way involving end-users;
- easy to read;
- introduced with an official launch, training and wide dissemination;
- reinforced by prescription audit and feedback.

3 Essential Medicines List based on treatments of choice

Essential medicines are those that satisfy the priority health care needs of the population. The use of an essential medicines list (EML) makes medicine management easier in all respects. Procurement, storage and distribution are easier to do with fewer items, and prescribing and dispensing are easier for professionals as they have to know about fewer items. A national EML should be based upon national clinical guidelines and should be the focus for government activities in the public

CORE INTERVENTIONS TO PROMOTE RATIONAL USE OF MEDICINES

- A mandated multi-disciplinary national body to coordinate medicine use policies
- Clinical guidelines
- Essential medicines lists based on treatments of choice
- Drugs and therapeutics committees in districts and hospitals
- Problem-based pharmacotherapy training in undergraduate curricula
- Continuing in-service medical education as a licensure requirement
- Supervision, audit and feedback
- Independent information on medicines
- Public education about medicines
- Avoidance of perverse financial incentives
- Appropriate and enforced regulation

sector, e.g. procurement, distribution, insurance reimbursement policies and training.

Only health workers who are approved to use certain medicines should be supplied with them. Medicine selection should be done in a transparent way by a central committee with an agreed membership and using explicit, previously agreed criteria, based on efficacy, safety, quality, cost (which will vary locally) and cost-effectiveness.

④ Drugs and therapeutics committees in districts and hospitals

A drugs and therapeutics committee (DTC) is a committee designated to ensure the safe and effective use of medicines in the facility or area under its jurisdiction. Such committees are well-established in industrial countries as a successful way of promoting more rational, cost-effective use of medicines in hospitals. Governments may encourage hospitals to have DTCs by making it an accreditation requirement to various professional societies.

DTC members should represent the administration and all the major specialties in any given facility. The members should also be independent and declare any conflict of interest. A senior doctor would usually be the chairperson and the chief pharmacist, the secretary. Unfortunately many DTCs are procurement committees. Their activities should however be much broader and should include developing or adapting clinical guidelines, medicines selection, monitoring medicines use and taking corrective action, staff education, controlling drug promotional activities by pharmaceutical industry within the premises of the health facility and monitoring adverse drug reactions.

⑤ Problem-based training in pharmacotherapy in undergraduate curricula

The quality of basic training in pharmacotherapy for undergraduate medical and paramedical students can significantly influence future prescribing. Rational pharmacotherapy training, linked to clinical guidelines and essen-

tial medicines lists, can help to establish good prescribing habits. Training is more successful if it is problem-based, concentrates on common clinical conditions, takes into account students' knowledge, attitudes and skills, and is targeted to the students' future prescribing requirements (WHO 1994).

⑥ Continuing in-service medical education as a licensure requirement

Continuing in-service medical education (CME) is a requirement for licensure of health professionals in many industrialized countries. In many developing countries opportunities for CME are limited. In these countries no incentives are offered for CME since it is not required for continued licensure. CME is likely to be more effective if it is problem-based, targeted, involves professional societies, universities and the ministry of health, and is face-to-face. Printed materials, such as bulletins or newsletters, that are unaccompanied by face-to-face interventions, have been found to be ineffective in changing prescribing behaviour.

CME should be provided for all cadres of health worker including in the informal sector such as drug retailers. Often due to lack of public funds CME is heavily supported by the pharmaceutical sector and may thus be biased. Governments should therefore support efforts by university departments and national professional associations to give independent CME.

⑦ Supervision, audit and feedback

Supervision is essential to ensure good quality of care. Supervision that is supportive, educational and face-to-face, will be more effective and better accepted by prescribers than simple inspection and punishment. Effective forms of supervision include prescription audit and feedback, peer review and group processes such as self-monitoring. Many industrialized countries have a strong supervisory infrastructure but resources are often lacking for this in low-income countries.

⑧ Independent information on

Only health workers who are approved to use certain medicines should be supplied with them

medicines

Inadequate knowledge and lack of access to independent information about medicines significantly contribute to irrational use of medicines. Often, the only information that practitioners receive is provided by the pharmaceutical industry and may be biased. Provision of independent (unbiased) information is therefore essential. Drug information centres (DICs) and drug bulletins are two useful ways to disseminate such information. Both may be run by government or a university teaching hospital or a nongovernmental organization, under the supervision of a trained health professional.

9 Public education about medicines

It is essential that the general public have the skills and knowledge to make informed decisions about when and how to use medicines, and to understand their potential risks as well as benefits. Without such knowledge and skills, people will often not get the expected clinical outcomes and may suffer adverse effects. This is true for prescribed medicines, as well as medicines used without the advice of health professionals. Governments have a responsibility to ensure both the quality of medicines and the quality of the information about medicines available to consumers. This will require:

- Ensuring that over-the-counter medicines are sold with adequate labeling and instructions that are accurate, legible, and easily understood by laypersons;
- Monitoring and regulating advertising, which may adversely influence both prescribers and consumers;
- Running targeted public education campaigns, which take into account cultural beliefs and the influence of social factors.

10 Avoidance of perverse financial incentives

Financial incentives that encourage irrational use of medicines should be avoided. For example, prescribers who earn money from the sale of medicines (e.g. dispensing doctors) prescribe more medicines, and more expensive medicines, than prescribers who do not. The health system should therefore be organized to deter prescribers who dis-

pense or sell medicines. Patients prefer to get 2-3 medicines rather than one if the total cost to them is the same regardless of the number of medicines. Flat prescription fees covering all medicines in whatever quantities within one prescription lead to over-prescription. User charges should therefore be made per medicine, not per prescription. Insurance policies should provide reimbursement only for essential medicines, not non-essential ones.

Appropriate and enforced regulation

Regulation of the activities of all actors involved in the use of medicines is critical to ensuring rational use. Regulations only have an effect if they are enforced, and the regulatory authority sufficiently funded and backed up by the judiciary.

Sufficient government expenditure to ensure availability of medicines and staff

Irrational drug use is caused in part by the lack of essential medicines and the lack of appropriately trained personnel. Without sufficient competent personnel and finances, it is impossible to carry out any of the core components of a national programme to promote rational use of medicines. Poor clinical outcome, needless suffering and economic waste are sufficient reasons for large government investment.

Monitoring pharmaceutical policy

WHO Geneva has created a database to monitor the pharmaceutical situation in countries. This database contains data on pharmaceutical policy from all countries who were member states of the WHO in 1999 and 2003. The data was collected by sending a questionnaire to the Ministry of Health in each country. Data show that, while several member states are implementing some of the national policies recommended by WHO, as described above, a significant number of Member States are not using all available options.

The way forward

The main recommendations from the evidence presented at the second ICIUM



Prescribers who earn money from the sale of medicines (e.g. dispensing doctors) prescribe more medicines, and more expensive medicines, than prescribers who do not

2004 were for countries to:

- implement national medicines programmes to improve medicines use;
- scale up to national level successful interventions and monitor their impact regularly;
- implement interventions addressing community medicines use.

Implementation of national programmes to promote rational use of medicines, as recommended by ICIUM 2004, requires implementation of the core policies and structures within the health system as described above. Many of these interventions are within the technical and financial capacity of most countries. Unfortunately, implementation of these policies has not occurred in a significant number of countries and without such policies rational use of medicines can never be attained. The situation is now so serious that the subject will be debated at the next Executive Board of the World Health Organization with a view to adopting a resolution on taking a coordinated health systems approach to promoting rational use of medicines at the World Health Assembly in May 2007.

Strategies to promote the rational use of medicines

Governments

- Do a situational analysis
- Evaluate the impact of programmes in terms of medicine use, quality of service and costs
- Lobby with doctors and MPs
- Involve consumers and the media
- World Health Organization (WHO) country offices to make recommendations to Ministry of Health (MOH) to establish units, with sufficient resources, devoted promoting rational use of medicines

NGOs and donors

- Advocate for the benefits of rational use of medicines from public health and financial perspectives
- Include a rational use of medicines indicator in every proposal
- Involve NGOs in rational use of medicines activities
- MOH/WHO to coordinate NGOs and donors, in collaboration with civil society, with regard to activities concerning rational use of medicines

WHO

- Appoint staff in every region with a specific mandate to work in collaboration with MOHs to promote rational use of medicines
- Support countries to establish a unit on rational use of medicines within the MOH
- Undertaking advocacy
- Budget for activities on rational use of medicines

Output of group work at WHO technical briefing seminar in September 2006 on how to stimulate governments, NGOs and donors and, WHO to promote Rational Use of Medicines.

Dr. Kathleen Holloway is a medical officer working for WHO - Geneva in the Department of Medicines Policy and Standards.

References

- 1 International Network for the Rational Use of Drugs (INRUD), 1st International Conference for Improving the Use of Medicines (ICIUM 1997), URL: <http://www.icium.org>
- 2 International Network for the Rational Use of Drugs (INRUD), 2nd International Conference for Improving the Use of Medicines (ICIUM 2004), *Policies and Programmes to Improve Use of Medicines: Recommendations from ICIUM 2004*, URL: <http://mednet3.who.int/icium/icium2004/recommendations.asp>
- 3 World Health Organization. *Ethical Criteria for Medicinal Drug Promotion*. Geneva: World Health Organization; 1988.
- 4 World Health Organization. *Guide to Good Prescribing*. Geneva: World Health Organization; 1994.
- 5 World Health Organization, Promoting rational use of medicines: core components. WHO Policy Perspectives on Medicines no. 5. Document WHO/EDM/2002.3. Geneva, WHO, 2002. Available at URL: <http://www.who.int/medicines>
- 6 World Health Organization, *Database on country pharmaceutical situations*; work in progress. Department of Technical Cooperation for Essential Drugs and Traditional Medicines. Geneva, WHO. Some results presented in the document *WHO Medicines Strategy: countries at the core 2004-7*. Document WHO/EDM/2004.5. Geneva,

STRATEGIES TO PROMOTE RATIONAL USE OF MEDICINES

A summary of the recommendations made by participants of the session on Rational Use of Medicines hosted by Ecumenical Pharmaceutical Network (EPN) and Health Action International (HAi) at the World Health Assembly on 19th May 2005 in Geneva

① Measuring the impact/obtaining the evidence

Studies should be done in areas where rational use of medicines (RUM) policies have been developed and successfully implemented and the findings documented and disseminated to all stake-holders. These will provide the evidence that RUM can save treatment time and costs and finances and can improve health of individuals, consumers and their communities on a large scale. The same data can also be used to show the negative effects of not having RUM policies in place, e.g. acquiring infections, death due to inappropriate medication etc.

Proposed activities: conducting cost benefit analysis; providing cost implication of irrational drug use to politicians; quantifying the drug misuse; documenting the cost in terms of burden of disease, mortality and morbidity due to irrational use; and publicising financial incentive fuelling irrational drug use.

② Formation of alliances

Alliances should be formed between prescribers, consumers (community members) and politicians to ensure that all stake-holders are working towards common goals. In addition, policies and strategies to promote RUM should overlap with major health programmes like HIV/AIDS, malaria, TB and drug and substance abuse.

Proposed activities: inviting politicians to venues where the benefits of RUM to their constituencies is highlighted; provide evidence to youth and communities on the links between irrational drug use and their lack of access to useful and safe drugs; integrate RUM requirements in development programmes.

③ Communication strategies

By using the media on a wider scale, clear communication strategies can be developed to put RUM on the political agenda. This gives knowledge to individuals, consumers and their communities and raises levels of awareness in areas like the risks caused by irrational use, the drug resistance problem, e.t.c.

Proposed activities: providing regular updates to the media on positive messages for RUM; highlighting consequences of irrational drug use such as deaths from resistant organisms; naming and shaming activities promoting irrational drug use.

④ Empowerment of consumers

Consumers and communities can be empowered in the use of medicine e.g. in areas of antibiotics use which are amongst the most abused medicines.

Proposed activities: carrying out simple rational drug use activities within the communities to ensure step by step learning of RUM; providing communities with information to enable

them and grassroots groups to demand appropriate use of their medicines.

⑤ Providing practical messages

Countries that have managed to implement policies with positive outcomes should document and promote their successes. This can be done by starting to use simple and practical messages focusing on one issue at a time so to avoid information overload that can cause confusion or misunderstanding.

Proposed activities: marketing widely the Swedish model on antibiotic use; replicating and publicising the positive ICIUM outcomes more widely, sharing successful local experiences within the country through support of local WHO offices and/or Ministries of Health.

⑥ Advocacy and lobbying

Advocacy for RUM should be done with all stake-holders, i.e. governments, donors, training institutions and student associations. This ensures that all who are involved in medicines are made part of the political agenda.

Proposed activities: making RUM part of training curriculum; making presentation on RUM at all possible venues; providing politicians with data for their deliberations in parliament; providing factual sheets on RUM to lobbyists.

⑦ Address at global level

Policies on RUM should be clearly defined and supported by organizations at the global level, e.g. WHO, World Bank, Global Fund, PEPFAR etc. which makes it easier to implement the policies at lower levels i.e. regional, national, and community level.

Proposed activities: passing of a strong resolution on RUM at the World Health Assembly, allocating of funds for promoting RUM in the budgets, including RUM as a requirement in agreements, addressing RUM as part of strengthening health systems.

⑧ Address industry power

WHO and other international organizations should address "big pharma" issues such as the pharmaceutical industry in developed countries which are biased towards producing and promoting drugs mainly for the profitable markets of industrialized countries, while neglecting much-needed medicines for illnesses that affect the poor and vulnerable people in resource-limited countries.

Proposed activities: providing leadership in addressing excesses of the pharmaceutical industry that lead to irrational drug use; holding industry accountable to their social responsibilities.

MAKING THE BEST OF USE MEDICINES

A PHYSICIAN'S PERSPECTIVE

Inappropriate use of medicines is a serious concern, especially when it affects the more vulnerable people and occurs for extended durations. Inappropriate drug use can have dire consequences; it has been associated with hospitalization and even caused deaths of inpatients in health care facilities.

The management of a patient's illness is a tripartite engagement involving the patient, the health-care provider and the health care facility. One seeks health care for various symptoms that may arise from: acute curable disease such as malaria or trauma; acute and chronic disease conditions like painful joint inflammation such as in rheumatoid arthritis; chronic non-communicable conditions like hypertension, mental illness and diabetes mellitus; and lastly chronic infectious diseases like HIV/AIDS and Tuberculosis.

In each situation the physician makes a diagnosis of the condition and then prescribes the treatment, which may be medication. There should be adequate accompanying explanation from the physician to the patient on how to administer prescribed medication. If the patient is not properly advised, or misunderstands the instructions, then the medications may not be used appropriately.

A variety of situations and circumstances promote irrational use of medicines. This may take the form of using wrong medication to treat certain indications, or using medication for durations beyond the desired period.

Self-medication

Some people do not consult a doctor before taking medicines. Instead they opt for self-medication, taking it upon themselves

to decide which medicines they think they need. The forces that drive one to use medication include: real or perceived ill health, ignorance, and addiction or dependence on certain medications.

Self medication may also be facilitated by certain situations including:

- Poor access to desirable health care because of high costs, long distance and discriminatory policies;
- Poor regulation and/or implementation of regulations on prescription drugs and pharmacy practices (with profit motives overriding the professional requirements);
- Overzealous advertisements of medications, that make claims of efficacy and scope of use but conceal adverse effects;
- Poorly informed public on matters of health and self-care;
- High burden of diseases, many of them with overlapping symptoms, e.g. pain, fever, insomnia and depression are common symptoms for different conditions which require different medication, but the correct medicine can only be determined by consulting a medical practitioner for diagnosis;
- Poverty which puts consultations out of reach for people who cannot afford to pay for professional health care services.

Commonly misused medicines

The most commonly used medications world over are analgesics (pain-killers) and antibiotics. These medicines are often used inappropriately. They are either taken for the wrong reasons (that is the wrong drug used to treat particular symptoms) or used incorrectly (taken for incorrect periods or in incorrect amounts). This misuse has undesirable outcomes. Antibiotics are also commonly misused. One common misuse is non-adherence many patients fail to take the full course prescribed. When medicines such as antibiotics are misused they generate drug-resistant strains of the bacteria.



There should be adequate accompanying explanation from the physician to the patient on how to administer prescribed medication

Promoting rational use of medicines

Rational use of medication saves lives, makes sense and saves cents. It limits undesired toxicity and adverse events and maximizes on the benefits that can be derived from optimal use of medications.

Patients are encouraged to always obtain advice from a healthcare provider to interpret symptoms of an illness and the appropriate remedy. One should avoid self-interpretation of symptoms, self-prescription of medication, and self-acquired remedies. It is equally important for one to view with caution advertisements that promote medications. Furthermore, it is just as bad for two people to share medications simply because they have the same symptoms or their situations are similar.

Based on the review of innovative best practice and affordable health care models to improve clinical care and outcomes for chronic conditions, the WHO proposes the following nine strategies:¹

- Developing health policies and legislation to support comprehensive care;
- Reorganizing healthcare finance to facilitate and support evidence-based care;
- Coordinating care across conditions, healthcare providers, and settings;
- Enhancing flow of knowledge and information between patients and providers and across providers;
- Developing evidence based treatment plans and support their provision in various settings;
- Educating and supporting patients to manage their own conditions as much as possible;
- Helping patients to adhere to treatment through effective and widely available interventions;
- Linking health care to other resources in the community;
- Monitoring and evaluating the quality of services and outcomes.

The physicians' role

To ensure RUM, the role of physicians or health care providers should be enhanced through training and multidisciplinary practice in healthcare provision. In this regard, the WHO recommends certain pre-requisites to national governments for imple-

mentation, these include the establishment of national regulatory bodies and national drug policies.²

There are many areas of drug use that require tighter controls, such as the regulation and supervision of drug donations^{3,4}, free health camps; and use of medicines.⁵ While philanthropy is the driving principle for most drug donations, it is not always guided by needs arising from the beneficiaries. Consequently, the donated drugs are not always the ones required and there is therefore the danger that they will be used inappropriately. Some donations are motivated by sinister motives such as dumping of surplus or expired drugs, promotion of certain brands, preliminaries to win future tenders, or political expediency.

On the same note, free health camps bring health care to the people in dire need, albeit sporadically. In these situations irrational use may be promoted, for example, antibiotics may be prescribed for a short time and not be guided by both laboratory tests and good clinical diagnosis.

Conclusion

Governments, private health care institutions, individual health care providers and patients all have a responsibility to promote rational use of medicines. The professional and business angles of drug acquisition, prescription and dispensing must be regulated quite closely. This is best done by the professionals themselves, facilitated by the governments. Patients must be educated about rational drug use through the mass media or through private consultation for maximum gains to be derived from the medications available to them.

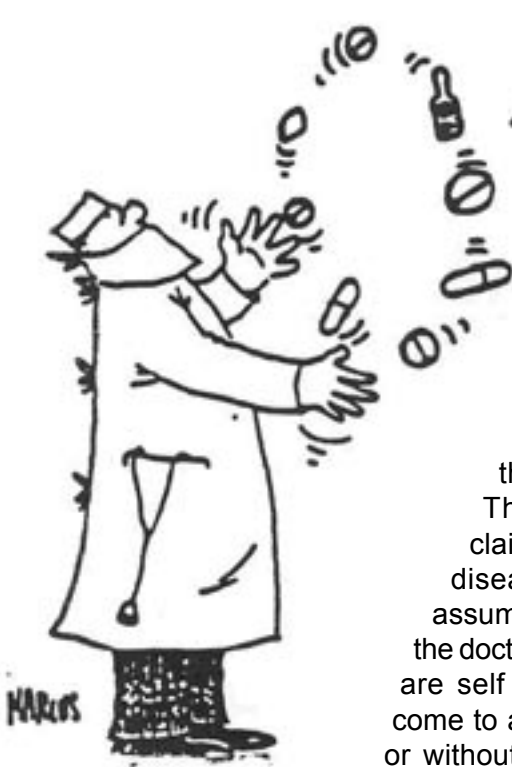
References

- 1 The challenge of chronic conditions: WHO responds. *BMJ* 2001; 323: 947.
- 2 WHO Guidelines for Drug Donations Revised 1999 (2nd edition). WHO/EDM/ PAR/99.4.
- 3 Lore W. Rational use of drugs: what is it and what are the pre-requisites for its fulfillment? Editorial. *Healthline, Journal of Health* 2006; 10(2): 15 – 16
- 4 Thuo HM, Ombaka E. Drug donation practices in East Africa. An exploratory study from mission health care facilities. *Healthline, J of Health* 2000; 4:2 – 11.
- 5 Nabiswa AK, Godfrey RC. Diagnosis and prescriptions for patients managed during a free healthcare day in Eldoret, Kenya. *East Afr Med J*. 1994;71:363 -365

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HOW “RATIONAL” IS OUR USE OF MEDICINES?

In the practice of medicine, doctors recognize the importance of “the placebo effect” phenomenon. This refers to patients getting better from an illness even if the medication used is only a “sugar pill.” In some cases this effect can be fifty percent or higher.



Many therefore may get better because of the psychological belief that they received an effective remedy for the illness they are suffering from. This fact alone is of great clinical significance for both the doctor and the patient. The former will incorrectly claim effective treatment of a disease, while the patient will assume effective treatment from the doctor. Many medical conditions are self limiting. This means they come to an end by themselves, with or without treatment. The common cold is a good example of this. In most cases the symptoms, if left alone, will subside in a few days. So when doctors or pharmacists prescribe medicines for the common cold are they part of the “rational drug use culture” which is demanded of all ethical practitioners? This particularly applies in the use of antibiotics. In most such cases medical practitioners prescribe antibiotics for their own psychological satisfaction and relief, not that of their patients, or to retain their relevance and influence over their patients rather than because these drugs are absolutely necessary for the condition concerned. Often they do so to save on the time it would take to educate patients on the rational use of medicines.

The other extreme of the spectrum are patients who visit doctors with the expectation of receiving a prescription for medication. Unless the doctor prescribes strong, brightly colored medicines, preferably in capsule form, complemented by a painful injection, such patients feel the medical practitioner has not taken their cases with sufficient seriousness. Many rural people believe the severity of an illness is judged by the number of pills and injections required in its treatment. Conversely, the urban rich believe the seriousness of an illness is judged by the number of investigations and associated high cost! If one is suffering from a psychological disorder like anxiety or depression, the physical complaints associated with these conditions may sometimes take greater prominence than the underlying cause of the symptoms. The patient visits the doctor and complains of pains and aches rather than that of stress and sadness. These two examples show that, both the doctors and the patients require education on the rational use of medicines.

Misreading the symptoms

Between 25 to 30% of patients who attend primary health care facilities do so because of minor, but common psychiatric disorders. Many of these conditions are presented to the medical providers as complaints of headache, backache, abdominal and other body pains. In many African communities these symptoms are described simply as “malaria” and prescriptions of anti-malarials given for what in reality is depression or anxiety. The overwhelmed, overworked and undertrained primary health care provider who does not have time to delve into the underlying cause of the symptoms simply takes the shortcut of the irrational drug use to quickly attend to the high number of patients.

Typhoid is another condition which is often irrationally treated at primary care level. In the absence of clinical evidence many patients are treated with strong antibiotics for typhoid when in reality they are suffering from depression or anxiety.

In Kenya there is currently a large scale program between the Kenya Psychiatric Association, Ministry of Health and the Institute of Psychiatry in London, to address these issues. This program plans to train nearly four thousand primary health care workers in Kenya on the diagnosis and rational treatment of common mental disorders.

Bad use of good medicine

Self medication is another common example of the irrational use of drugs. In many cases it is supported by poorly regulated pharmaceutical practitioners.

From a psychological perspective, the most common cause of self medication arises from complaints of insomnia or lack of sleep at night. Insomnia has different causes (both serious and not serious), some requiring treatment and others requiring none. Dependency on sleeping pills develops because their initial use was not supported by rational use of medicines. Transient insomnia which lasts for only a short time may be treated for long periods of time without supervision by qualified persons. This leads to addiction to otherwise good medicines and gives a bad name, not only to the medicines but also to the doctors who prescribe them.

The solution to this problem lies in public education on the importance of proper and competent diagnosis of insomnia. The causes of insomnia are varied and include anxiety, depression, bereavement, pain, good and bad news, excitement or anticipation, such as preparation for exams and marriage! Care should be taken before prescribing sleeping pills to avoid irrational use.

A less common but increasing problem of irrational use of medicines is the misuse of cough mixtures containing codeine. Cases have been reported for

the treatment of complications arising from the prolonged daily use of different cough mixtures. Symptoms of addiction to cough mixtures are similar to those of heroin addiction!

Another problem on the increase is the abuse of laxatives and diuretics to induce diarrhoea and fluid loss respectively. This is done to lose weight. Stimulant abuse which is believed to increase the passing of wind and encourage weight loss is also on the increase and leading to addiction. These are dangerous activities that have led to death in some cases.

Conclusion

It is evident from the foregoing that rational use of medicines is an important current issue that has many important psychological aspects, affecting professional and lay players and which demands action by all. Public education must be complemented by the dissemination of accurate information to these professionals who may not be aware of the dangers they place their patients in by the irrational use of otherwise very good drugs.

Public education must be complemented by the dissemination of accurate information

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LURES TO IRRATIONAL USE OF MEDICINES

Health is a personal responsibility. Taking care of one's body and health and the health of one's family should be the priority of each human being.

However, the responsibility of personal health has been handed over to the healthcare system. The belief is that doctors, pharmacists and other health care professionals are responsible for our health since they have been trained in that area. This belief results in dependency on health professionals and neglect one's personal responsibility of his or her own health. The question is: How confident are we, as lay people, that the medical experts, are making the best decisions or choices for our well being? Since the medical practitioners' incomes are directly linked to our ill health does that mean they would be more appreciative of patients rather than healthy persons?

This is not necessarily the case with all physicians and pharmacists, but not all professionals are bound by ethics.

Medical experts are dependent on an industrial-based system (medicines and medical equipment). The industry is, by nature profit driven. In Germany, every physician running a practice is visited on average 192 times by medical representatives from pharmaceutical companies. These medical representatives are well trained to convince doctors about new medications. The new drugs are always much more expensive though they do not necessarily have increased efficacy! From research conducted by an independent expert, only 7 of the 450 new developed drugs since 1990 can actually be said to be totally innovative, 25 are partially innovative and the rest have no therapeutic advantages.

The results of another study conducted by the German Government on new medicines showed that 300,000 doctors were prescribing a new type of insulin (analogue insulin) which has no added advantage over the existing insulin. As a result of this finding, the German Ministry of Health decided to exclude new drugs from the list of medications paid for by the national health insurance system as long as they are more expensive than existing approved drugs. This is an important step into the right direction.

Another disturbing statistic shows that, 300,000 patients are hospitalized annually in Germany because of ill-

Influx of information: good or bad for rational use of medicines?



nesses caused by consumption of medications. There are several possible causes for the situations described above. They include:

LURING OF PRESCRIBERS

Most health workers are not regularly informed by independent sources. In developed countries independent media which offer independent information are available but are hardly used.

Medical and pharmaceutical journals

Most medical and pharmaceutical journals depend on advertisements for income from the companies that manufacture drugs or medical equipment. Such journals cannot provide totally objective information as the articles cannot be too critical of the activities or products of these companies.

Until recently, all physicians in the United Kingdom received a free copy of the "*Drug and Therapeutics Bulletin* (DTB) which was edited by the British consumer organization. Unfortunately, the UK government decided to cancel this service due to financial constraints. It costs two million Euros annually (or 0.2% of the UK-Ministry of Health budget) to publish and distribute the DTB, however, the British Pharmaceutical Companies spend 2.5 billion Euros on advertisement annually! The amount of money which could be saved if doctors prescribed medicines rationally if they got more independent knowledge from publications such as the DTB would be even higher! In Germany it is estimated that the budget of health insurance companies could decrease by about 3 billion Euro annually if the doctors stopped prescribing drugs whose effectiveness is questioned by independent experts.

Reference books

Every year in Germany all doctors receive a free copy of the *Rote Liste*, a book which provides information about all medicines available in the country. The book is edited by the pharmaceutical industry. Another compendium edited by an independent institute and based on independent scientific research contains information on all the

drugs in the German market classified in categories depending on the efficacy of the drug. The book also provides overviews on pricing of which companies offer a particular drug at the lowest cost. However, unlike the *Rote Liste* this book is not free and neither is the monthly independent newsletter.

Software

Many pharmaceutical companies offer software to physicians to facilitate the prescribing procedure. The software is easy to use. It generates a prescription for each diagnosis. The snag is that in most cases the drugs displayed for each diagnosis are those manufactured by the company providing the software. The suggested drugs are not necessarily the most effective in treating the illness.

Training

When many pharmaceutical companies invite doctors for training courses, the venue of the training is usually a plush hotel with exotic surroundings. These training courses are offered at no cost to the participants and in some cases the participants are given the option of inviting a guest. The "training" sometimes takes place during the flight to the venue, or in a day or less of the time to allow the participants more time to enjoy the venue. These are some of the incentives given to doctors to prescribe medicines manufactured by the sponsoring pharmaceutical companies.

LURING OF CONSUMERS

Consumers are lured to use medicines irrationally through:

Commercial promotion of brands

Most medical and pharmaceutical journals carry advertisements of medicines sponsored by pharmaceutical manufacturing companies. Most of the medicines advertised do not require a doctor's prescription making them appealing for consumers to purchase over-the-counter. Often, when asked about the efficacy and cost of these medicines most pharmacists are not truthful as they want to make profits from the sales.



The *British National Formulary* (BNF) provides healthcare professionals with authoritative and practical information on the selection and clinical use of medicines in a clear, concise and accessible manner

Direct to consumer advertisement for medicines that have to be prescribed by a doctor is forbidden in most countries

In addition to open advertisement, there are covert promotion practices which are even more dangerous. In these subtler promotions, articles on a health issue are written and reviewed by purported authorities on the subject. The article carefully focuses on a specific therapy and medicine. The medicine proposed is highly recommended by the "health expert" giving the impression that it is the best therapy available. However, should one conduct further research on the author of the article, the source is often found to be the pharmaceutical company which manufactures the drug.

Direct to consumer advertising

Direct to consumer advertisement for medicines that have to be prescribed by a doctor is forbidden in most countries. It is however allowed in the United States of America and in New Zealand. In the US, pharmaceutical companies invest up to 4 billion dollars annually to convince consumers that they should insist that their doctors give them a specific prescription. These practices do not promote rational prescribing.

CONTROLLING THE SITUATION

The negative influence of media on RUM can be mitigated by:

- **Educating health personnel on rational use of medicines.** This is a challenge as the health sector is sometimes dependent on the pharmaceutical industry. Several universities which educate health personnel are also financially dependent on the pharmaceutical industry for funds to conduct research studies and projects. Unfortunately governments in most developed countries do not provide enough funds for universities to run independently. For example: a pharma-critical drama group was invited to perform at a university and the professor in charge of the pharmacy department was asked if his department could be the co-inviter of the group. His answer: "If we do it I will lose my job because we are getting so much money from these companies." It is therefore crucial that students are, wherever possible,

invited to grassroots and consumer groups activities and presentations outside the university environment to expose them to different situations.

- **Fighting for independent information.** To obtain independent information, it is important that the sources of the information are not linked to a pharmaceutical company. Governments should be urged to support the publishing and wide distribution of independent journals for prescribers, dispensers and consumers of medicines. One needs to be critical of invitations to events; the presence of a logo/name of a pharmaceutical company whether prominent or in small print is a sure sign that it is being used for promotion, whether openly or covert.
- **Advocating for transparency in the health system.** This will ensure openness and allow exact figures and sources of money to be shown.

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FACTORS INFLUENCING CONSUMER USE OF MEDICINES

An estimated one third of the world's population lack regular access to essential medicines with this figure rising to over 50% of the population in the poorest parts of Africa and Asia. When available, the medicines are often used incorrectly: Fifty percent of all medicines are prescribed, dispensed or sold inappropriately, while 50% of the patients fail to take their medicines appropriately (WHO)

The way consumers use medicines is influenced by a wide range of factors including: knowledge about use, the cost of medicines at all levels, regulatory systems, cultural factors, community beliefs, communication between them and prescribers to ensure correct use of the drugs, outpatient support, access to objective information on medicines, and commercial promotion.

Cost of medicines

In economic terms, inappropriate use has led to the wastage of limited resources and to non-availability of essential medicines where they may be needed.

According to surveys conducted in 2004 by HAI Africa and WHO in 11 Sub-Saharan Africa countries in 2004, the median availability of the essential medicines in public health facilities was below 70%. This means that many patients who go to public health facilities for treatment often go back home without getting the medicines they need. Some of these patients have to resort to buying the required medication from the private sector where they are more expensive. The problem is that essential medicines are not affordable to majority of the population. In Kenya, for example, more than 60% of the population live below the poverty line. This results in situations where a family ends up sharing medicines that were prescribed to treat one person - a classic example of irrational use of medicines.

Some sections of the population have developed a misconception that the expensive medicines are more effective than the cheaper generic versions. Middle class patients in developing countries who may have the purchasing power to buy medicines, often have limited

knowledge on the use of medicines and therefore sometimes end up pressurizing the prescribers and dispensers for the expensive branded medicines in preference to cheaper generics which are just as effective.

Inadequate regulatory systems

In most developing countries, national drug regulatory agencies do not have enough qualified personnel, financial resources and equipment. As a result the function of regulating the importation, distribution, promotion, and sale of medicines is not adequate. This has resulted in medicines being dispensed by unqualified personnel in facilities that are not licensed to provide these services.

In the poor parts of Sub Saharan Africa it is common to find prescription

Some sections of the population have developed a misconception that the expensive medicines are more effective than the cheaper generic versions.



medicines being sold in the markets and open areas by unqualified people. Such unregulated sale of medicines has increased to fill the gap not covered by the public, private and NGO facilities. In Nigeria for instance, prescription drugs, including antibiotics and injectable drugs which should not be sold over-the-counter, are freely available in the informal sector from drug hawkers, vendors and stores. (WHO 2002). Although the medicines sold in the formal sector are usually cheap they are either of poor or unknown quality. The consumers of these medicines are mainly in the rural areas. These consumers are often not given adequate information about the medicines and end up using them irrationally.

To exacerbate the situation, qualified health professionals are often concentrated in the urban areas. In Uganda, 80% of the 215 private pharmacies which are managed by pharmacists are based in the main urban centres (WHO 2002). To cater for the rural population franchise drug shops which are managed professionally have been introduced in Ghana, Kenya and Tanzania. However, these shops only cover one or two regions of the country. Faith based organizations have also become one of the main sources of quality medicines but they are also inadequately resourced and the health workers are often overworked.

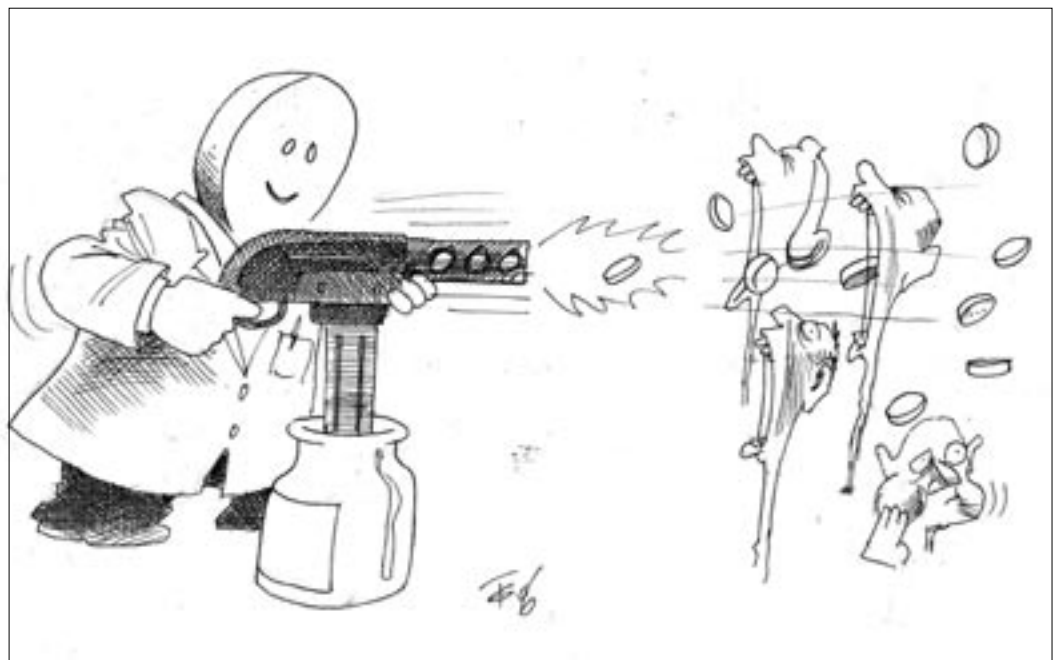
Poor communication between professionals and consumers

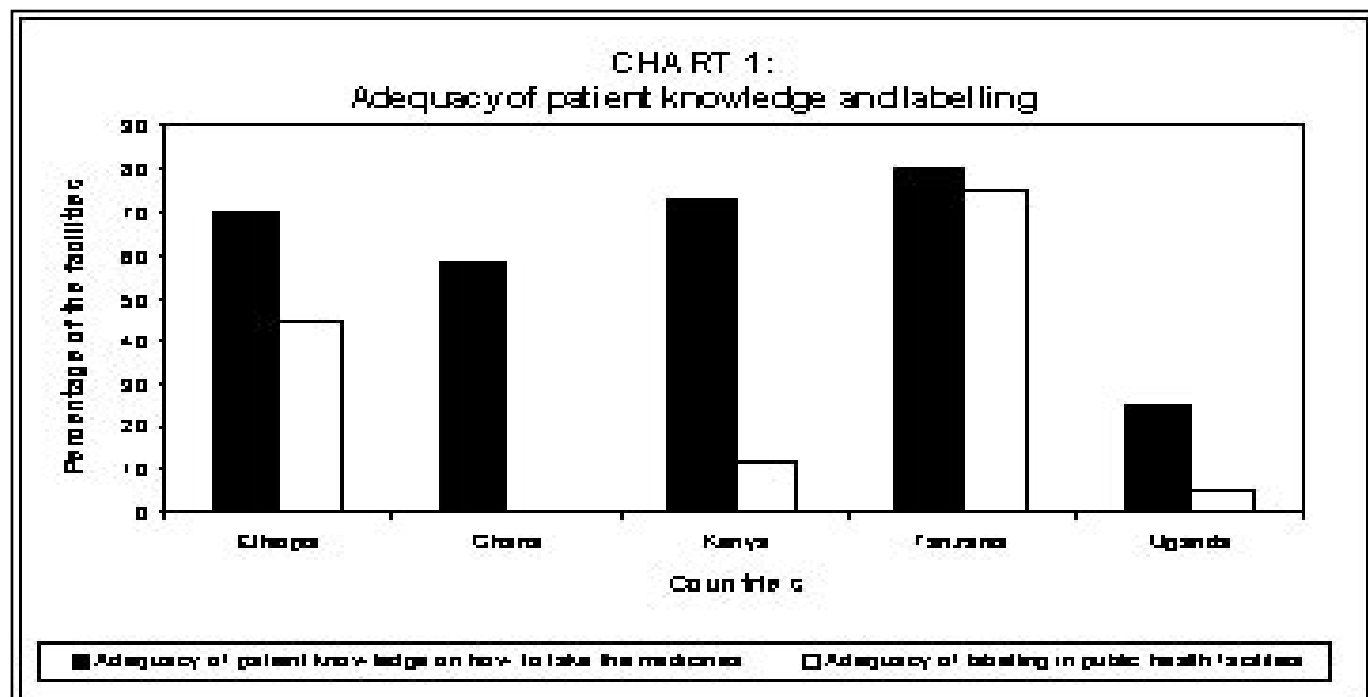
Communication between professionals and consumers is fundamental to the improvement of rational use of medicines by consumers. Professionals should provide the following information to the consumers: the name of the medicine, the purpose for which the medicine is being taken, dose, frequency of use, and duration of use. The prescribed and dispensed medicines should also be properly labelled indicating the above information. The shortage of qualified health personnel in public health facilities has resulted in inadequate labeling of medications by prescribers and dispensers, and in insufficient time spent by them to inform the consumers on how to take the medicine. Chart 1 depicts status of labeling of medicines and the adequacy of patient knowledge in 5 selected African countries.

Exit interviews were conducted for patients/consumers of medicines in the public health facilities and it was found that the adequacy of labeling medicines according to the above mentioned criteria was on average below 50% while the adequacy of patient knowledge was 80% and below.

Also important are the possible drug and food interactions that might occur after taking the medicines. In cases of medicines for chronic diseases such as

Professionals should provide the following information to the consumers: the name of the medicine, the purpose for which the medicine is being taken, dose, frequency of use, and duration of use





anti cancer drugs, the adverse effects such as memory loss, depression and many others should be explained to the consumer.

All this communication requires adequate time between the professionals and consumers which is not always available due to the enormous workload of the health professionals in the developing countries. The situation has been made worse by the increase in the spread of HIV/AIDS and the attendant treatment issues which have placed further burden on both the health professionals as well as consumers.

Lack of objective information

The pharmaceutical market has been saturated by medical representatives whose aim is to achieve higher sales for the companies they represent. These sales professionals have become the principal source of information for many prescribers and dispensers despite the fact that the information they provide is geared towards promoting the sales of pharmaceutical companies. The essential medicines list, standard treatment guidelines, national drug policies are often good sources of literature on medicines use, but these reference materials are not widely disseminated (WHO 2002).

When brought to their attention, the media can play a key role in raising

awareness on problems with drugs and publicizing serious health hazards related to drugs. However the media has at times been used by pharmaceutical companies to covertly promote their medicines. In some parts of Africa the existence of counterfeits has sometimes been used to discredit generic products by some media houses. The consumers end up with mixed reactions on the use of generics.

The method of administration has influenced the use of medicines. Consumers in Uganda for instance believe that medicine injected into the blood stream does not leave the body as quickly as that administered orally. (Birungi 2004)

Inadequate public education

Developing countries have ineffective public education programmes. For example, in Nigeria although there is a high level of self-medication and uncontrolled sale and use of medicines, especially antibiotics and injections, there has been little or no public education on rational use of medicines (WHO 2002).

The most important sources of information for consumers about medicines are doctors, followed by the pharmacists, then nurses and other healthcare personnel. Medical professionals must not

Adapted from Baseline Pharmaceutical Survey, 2002

The shortage of qualified health personnel coupled with inadequate staff time in public health facilities has resulted in inadequate labeling of medications by prescribers and dispensers

only know the correct information to convey, but the skill and the time to do it well. However, skill and time in this area are scarce resources. Patients may not be aware of the kind of information they need or what questions they should ask, so there is a significant, general educational challenge.

The emergence of HIV/AIDS and other chronic diseases has exacerbated the problem since there are higher patient numbers but fewer of them are able to access the medicines they require. In the event that the prescribed medicines are dispensed, these[HIV/AIDS] patients go back home but most of them do not get regular outpatient support to encourage them to take the medicines. A successful patient follow up mechanism has been put in place in many countries to encourage the rational use of TB medicines. Unfortunately no similar mechanisms have been designed at the international and national level for other diseases.

Increasing consumer awareness

In countries such as the U.S.A, Canada, Australia, and in much of Europe there is a tradition of patient or health consumer networks. In Central and Eastern Europe the development of democratic civil society has enabled the emergence of patients' groups, and in Latin America similar consumer groups are growing in number. In the vastness of Africa and Asia where access to health care is a major issue, a few consumer groups are emerging, but their impact has not yet been measured. Treatment and consumer advocates in these continents have concentrated much more on lobbying for increased access to essential medicines, but now a few have begun focusing on rational use. Initiatives such as the drug literacy programmes by the Coalition of Civil Society Organizations in Kenya and in the Southern African Development Community (SADC) countries which are geared towards empowering the consumers are anticipated to have influence on rational use of medicines.

Conclusion

Rational Use of Medicines by consumers in developed and developing countries is highly influenced by other players. Consumers especially in the developing countries are not often consulted on the treatment decision; this is in contrast to their counterparts in the developed countries. Public education on rational use by consumer organizations will empower consumers to be involved in the decisions that affect them at policy formulation level and health professional-to-patient level. This 'bottom-up' approach will create a long lasting solution to rational use of medicines at all levels.

Patrick Mubangizi is the Coordinator of Health Action International-Africa (HAI-Africa). Mr. Mubangizi has more than seven years work experience in the private for profit and NGO sectors in Uganda. He is a registered pharmacist and has been involved in pharmaceutical procurement, medicines policy

References:

- 1 HAI/WHO (2003) Assessment of the pharmaceutical situation in Kenya, A baseline survey.
- 2 HAI/WHO (2002) Uganda Pharmaceutical Sector Baseline Survey
- 3 WHO (2002) Baseline Assessment of the Nigeria Pharmaceutical Sector
- 4 WHO (2002) Baseline Survey of the Pharmaceutical Sector in Tanzania
- 5 FDRE/WHO (2003) Assessment of the Pharmaceutical Sector in Ethiopia
- 6 WHO/EDM (2003) An assessment of the pharmaceutical Sector in Ghana
- 7 WHO/University of Amsterdam (2004) How to investigate the use of medicines by consumers
- 8 <http://www.worstpills.org/public>

Medical professionals must not only have the information to convey, but the skill and the time to do it well

RATIONAL USE OF MEDICINES: A PATIENT'S PERSPECTIVE

The development of Antiretroviral medicines (ARVs) brought with it a lease of hope for people living with HIV and AIDS (PLWHA). Like with any other medication, it is important for patients on ARVs to understand the treatment they have been put on and to use the medication rationally for maximum benefits to be derived and adverse effects to be avoided. James Kamau who is on ARV treatment recounts the benefits he has experienced from using ARVs rationally.

James suspected that he was HIV positive over 14 years ago after his wife fell ill and was required to undergo medical tests by her health care provider and was found to be HIV positive. He went for the actual test two years after his wife was diagnosed. James has been taking antiretroviral (ARV) drugs for over 36 months. Before he started taking the ARVs, he was on prophylaxis for two years. Prophylaxis is a measure taken to maintain health and prevent the spread of disease. In James' case he was put on antibiotics to boost his immune system and prevent him from contracting TB. His CD4 at the time was 300; it is currently over 800.

Before he was started on the medication he went through counselling sessions to make him understand the different aspects of the medication including how to take the medication, the benefits and side – effects. It is important for one on ARVs to take the medication at a scheduled time everyday. This keeps the virus from developing resistance to the drugs.

In the 3 years he has been on antiretroviral therapy (ART), James has only failed to take his medication twice or thrice. This was due to travelling for long hours at a time and into different time zones. When this happened, he waited until the next scheduled time to take the medication in order to maintain the routine his system is used to. James explained that he is on first-line medicines which are more readily available and less expensive. Should the virus develop resistance on these drugs, he would have to start taking the second-line drugs which are more expensive and less readily available.

James is well versed with all the aspects of taking ARVs and Antiretroviral Therapy (ART) in general. He explains that even before he began taking ARVs he was an advocate for access to essential medicines which he says made it easier for him to understand the treatment process. "I am treatment literate which means I understand what would happen should I miss treatment." He continues, "For me, it has been easy taking ARVs, I have had no problems." He has been fortunate in this aspect which is however not the case for other people on ARVs.

James is a member of a support group for PLWHA where they share their experiences. The challenges most of them encounter in taking ARVs are stigma and discrimination. "You will find people leaving [their homes] going very many kilometres away [from their homes] to access the medications to get away from that stigma," he explains. Situations

such as these cause irrational use of medicines since when the patient falls sick, or when they get opportunistic infections (OIs), they are unable to travel long distances to access the treatment they need and are afraid to ask for help. They therefore use any drugs they can get but which may be inappropriate.

The lack of equipment in hospitals to conduct tests including liver function tests and CD4 count tests is another challenge faced by those on ARVs. "You have to go out there [private hospitals] and that is expensive," James says regarding these tests. Other challenges are the lack of good nutrition. "One has to eat and for some it's very hard [to get food]," says James. Patients may therefore not take their medication.

According to James the government has a large part to play in rational use of ARVs and treatment. "The government needs to get the healthcare workers to understand what HIV/AIDS is," he said. He proved this by explaining how he had visited one of the largest private hospitals in Kenya and the laboratory technician would not tell if there was any correlation between TB and HIV! In instances such as these the laboratory technician is not at fault because he has not been trained on this aspect of HIV. "We need HIV/AIDS in the school curriculum and before that the teachers themselves need to be taught so that they can pass the correct information on to the pupils," says James.

The government also needs to reduce its reliance on donor aid to provide treatment to its citizens. As most of the funds for treatment of HIV/AIDS are foreign it is difficult to sustain treatment for long periods of time. This would be dangerous should the funding be discontinued or eased off for any reason.

Treatment to all those who need it is the government's responsibility. "If we can scale up and keep the people who are there alive and give hope [to them] then we will send a clearer message to the wider population on prevention issues," says James.

James Kamau is the coordinator of the Kenya Treatment Access Movement (KETAM). KETAM is a Kenya-wide activist movement whose aim is to advocate for access to medicines. He is a member of the steering committees of the Pan African Treatment Access Movement (PATAM) and Women Fighting AIDS in Kenya (WOFAK). He was interviewed by Jacqueline Nyagah of EPN on his experiences in using antiretrovirals (ARVs).

THE CHALLENGES OF RATIONAL USE OF MEDICINES IN NIS

The Newly Independent States (NIS) of the former Soviet Union became independent in the early 1990s. Since then, the countries have been going through political, economical and social reforms, which have been associated with economic crises, political uncertainty and change of social structure. The concept of Rational Use of Medicines (RUM) and Essential Drug Lists (EDL) is rather new for the NIS since there was no EDL in the Soviet Union and the Soviet System considered all registered drugs as essential. In the mid 1990s, the World Health Organization (WHO) introduced the RUM and EDL concepts to the former Soviet Union states as a tool to improve pharmaceutical supply and rational medicines use.

The Newly Independent States (NIS) of former USSR



The essence of an Essential Drugs List is to provide a catalogue of the minimum medicine needs for a basic health care system in a given country. It lists the most efficacious, safe and cost effective medicines for priority conditions within that country. The process of implementing the EDL concept in the NIS had many obstacles because of a lack of willingness among governments to restrict the use of inessential drugs and because of the insufficient educational programs for health care providers. In spite of the existence of the WHO Essential Drug Model List, the first edition of EDL in many NIS countries had a separate column for brand names. For almost every generic name, a number of brand names were indicated. In some cases the brand names were more than 10. For instance, the EDL of Kazakhstan mentioned 7 brand names for diazepam, 11 brand names for ibuprofen, and 14 for paracetamol. The EDL of Tajikistan had a similar column. It included brand names for most of the drugs in the list.

In former republics of the USSR dangerous drugs such as metamizole (dypirone) which is banned in other developing countries, is still widely prescribed by physicians and is even available over the counter in community pharmacies. In Moldova metamizole is registered in 27 preparations while in Ukraine it is registered in 37 brand forms and in 38 in Uzbekistan. One of the arguments given by pharmaceutical companies is that there has been no information from the regulatory authorities about the banning of metamizole, and no reported

cases of adverse reaction in Moldova or any of the other NIS countries. This dangerous drug was included in the first edition of the Essential Drug List of all NIS countries and is still found in many Standard Treatment Guidelines.

Drug promotion

The situation is made worse by large-scale promotion campaigns for any drugs but most especially for medicines that are banned in developed countries. Direct advertisement of drugs to consumers was forbidden until the 1990s, but is now widely prevalent in NIS countries through all kinds of media, including TV, newspapers, magazines and direct visits to physicians and pharmacists. This has resulted in a flood of new brands in the market.

Proliferation of brands

Irrational drug use is directly related to the number of brands on the market and to their promotion. Between 4,000 to 10,000 medicines are registered by the national drug authorities in NIS countries for populations of between 3 million to 6 million people. As many as 70% of all registered pharmaceuticals are duplicate or non-essential drugs. Many are variations of prototype drugs and offer no therapeutic advantage over drugs already available.

The number of brands per drug varies a little from one country to another in NIS. For example, the number of brands presently registered for diclofenac varies from between 50 and 65; while for paracetamol there are between 38 to 49 registered brands.

Prescribing errors

Relatively little is known about the incidences of prescribing errors in NIS health care system. Knowing what kinds of errors are most likely to occur is the first step in trying to prevent these errors. The first investigation into the errors in prescribing in Moldova was carried out by the Ecumenical Pharmaceutical Network Country Focal Point Organization (EPN-CFPO) - DrugInfo Moldova in 2006. The study was conducted in 3 public hospitals and 4 community practices located within the same geographical area. Pharmacists recorded prescribing errors during a 12-week period. The errors were categorized by the survey team composed of physicians, pharmacists and a clinical pharmacologist. In total, 84 recorded prescriptions were examined using the British National Formulary (BNF), the WHO Formulary and the National Moldavian Compendium.

The study findings showed that doctors in the NIS rarely use the prescription form approved by the Ministry of Health for writing medicine prescriptions. Rather they use form-notebooks, known as blanks, which are distributed by pharmaceutical representatives. Since the names of brand medicines are often printed on these forms, there is a tendency of doctors to prescribe these specific medications to patients so as to receive a share of the profits made by the pharmaceutical representatives. Such cases were reported in 10-15% of

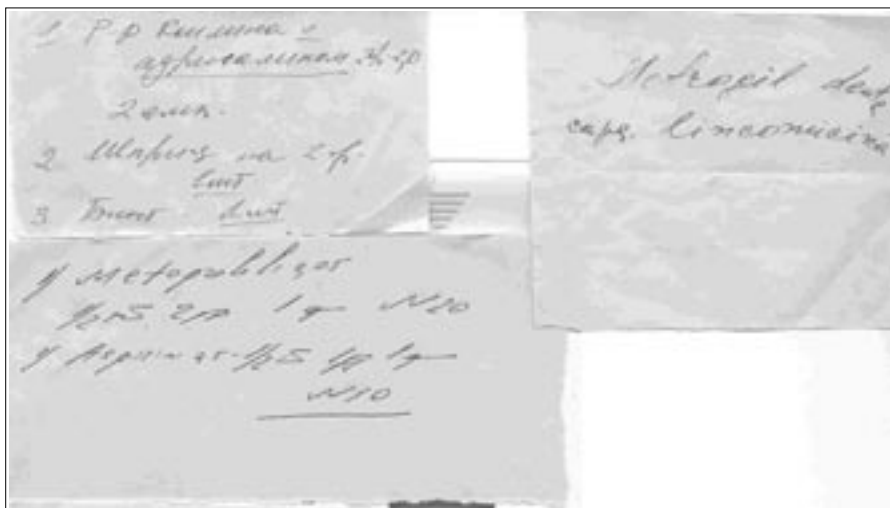
the total amount of sold medicines using "special" prescription forms. The lack of the doctors' stamps, medical institution seals or the prescribers signatures was also reported (See picture 1a).

Another finding of the study was that doctors may prescribe several medicines that potentiate, weaken or neutralize each other's effects when taken together. For instance, combined prescribing of diclofenac and diazepam leads to weakening effect of diclofenac.

The study also revealed that quite often doctors prescribe drugs fractionally. This means that they prescribe a half, a third, a quarter and even one eighth part of a pill. In such cases it is difficult for a patient to accurately divide the medicine into the stated portion. One of the biggest problems is the fractional prescription of enzymatic and iron-based agents to children. These medications are contained in a shell which is designed to dissolve in the bowels to give the desired effect. By opening up the shell to divide the drug into fractional portions, the desired effect of releasing the drug when the capsule dissolves in the bowels is not achieved. Without the protection of the containment shell, the drug ingredients are destroyed in the stomach. In such cases it is therefore practical to prescribe iron-based agents in the form of syrup or drops. There are humorous anecdotal accounts of a doctor prescribing Aevit, an oil solution in gelatin capsule, to be divided into three portions twice a day!

Doctors in the NIS rarely use the prescription form approved by the Ministry of Health for writing medicine prescriptions

Two examples of prescribing errors





Another prescription error is the duplication of medicines. This refers to doctors prescribing 2 medications of the same pharmacologic group or which contain the same ingredients, for example the simultaneous prescription of the same medicine under different brand names. This is most common when prescribing new medication for a patient who is already on medication. The main motivation is that the doctor feels the need to prescribe a safety net medicine to ensure therapeutic effects. The consequences are an undesirable increase of prescribed medicines.

Errors are also made in the indication of drugs doses. For instance, some errors occur when converting milligrams into grams. Doctors may make errors in the quantity by placing commas or decimal points at the wrong place. Incorrect comma and decimal point placement can increase or decrease the dosage by dozens or hundreds of times. For instance, Diazepam is produced in doses of 5 and 10 mg. Doctors may erroneously prescribe 50 mg or even 500 mg instead of 5 mg resulting in an overdose ten and one hundred times more the desired amount!

Prescription without dose indication is also a common prescribing error. For instance, a prescription may give only the name of the of preparations without indicating the dose, the turnout form or the mode of application or a doctor may issue a prescription with only one word on it: "Metrogil". A patient would not know, what drug formulation is intended, what the correct dose is, how many times it should be taken, and for what duration. Since "Metrogil" is produced in 6 drug formulations (in intravenous injection, solution, in pills, as a gel, as a face cream and as vaginal suppositories) a patient would not know which of these the doctor had in mind.

Blunders also cause problems. For example, the following irrational instructions were issued in the manufacturing department of a drug-store: Rp: Sol. Glucozae 2%; Ca Gluconatis 0,2; Mf pulv. No 20. These are instructions to prepare a powder from a

solution! Another amusing example was instructions which indicated the intramuscular introduction of pills!

Children's prescriptions are an area where many errors are likely to occur. The prescribing of drugs which are contraindicated in children or which should not be prescribed to children below a certain age is a common mistake. For instance: Famotidin is prescribed to younger children in doses of a half and a quarter pill daily. However it is not advisable to prescribe the drug to children less than 16 years old. This is because this drug is contraindicated to younger children as clinical investigations have not been carried out to decipher the effects the drug may have on them.

Finally, the act or practice of prescribing too many medicines to one patient known as polypharmacy is one of the main problems that is presented in the health care system in all NIS countries. The misconception is that a disease or illness should be treated with many drugs. (See picture (1b) which shows a prescription of 23 drugs for one patient after one visit to the doctor!)

Conclusion

These examples of irrational drug use in NIS countries give cause for concern. With little or no monitoring of drug prescribing these could have serious implications for appropriate drug use and patient care. Moreover, the present situation shows that self-regulation by the medical profession has failed. In most of the errors deduced professional advice to pharmacists would help to avoid them. Day-to-day tests and regular analysis of prescriptions would reform the treatment and reduce the risk of adverse reactions which appear as a result of misuse of the preparations. It is necessary to resume cooperation of family physicians and pharmacists regarding correct and efficient drugs prescribing. This cooperation would reform treatment.

Natalia Cebotarenco, PhD, is a doctor working for DrugInfo in Moldova. She is the EPN Country Focal Point in Moldova.

Elena Shkurkina, Svetlana Shetina, Sergey Cebotarenco, Olga Shemshur and Veaceslav Gonciar participated in the research.

References:

- 1 Health system in Transition, WHO, 2004.
- 2 The most popular errors when prescribing medicines, ISDB Newsletter, June, 2006.
- 3 Ten recommendations to improve use of medicines in developing countries. Health Policy and planning; 16 (1):13-20, Oxford University Press 2001.

PROMOTING RATIONAL USE OF MEDICINES IN PERU

IT CAN BE DONE

Dr. Amelia Villar is the General Executive Director of medicines, production agents and drugs (DIGEMID) in the Ministry of Health in the Peruvian government. DIGEMID regulates the use of pharmaceutical products, medical materials, instruments and cosmetics which are available in the Peruvian market. She was interviewed by Josefa Castro Sáenz and César Aylas Flórez both from Servicio de Medicinas (PRO-VIDA), a member of the Ecumenical Pharmaceutical Network (EPN).

Q: What is the legal framework for RUM in Peru?

A: The current National Medicine Policy approved in December 2004, stands on three supporting pillars: equal-opportunity and universal access to medicines, regulation and quality assurance, and promotion of the Rational Use of Medicines (RUM). The RUM section of the General Management of Medicines, Substances and Drugs, DIGEMID has developed the national plan for RUM.

Several strategies have been put in place to ensure the achievement of these intended goals. These include rational selection, promotion of the use of Essential Drug Lists (EDL), affordable prices of medicines, updating and strengthening the Pharmacological Committees, training of professionals, sharing of information with and educating communities, and the development of research on the use of medicines.

Studies on the use and adverse reactions of the antimicrobial drugs in hospitals are currently underway. Another study has been conducted with protocols of evaluation and use of antimicrobial drugs in health centres. This is on a peripheral level and will help reduce the irrational use of antimicrobial drugs.

Q: Who do you think should play the main role in promoting and ensuring RUM and what specific actions have been taken in Peru towards this end?

A: The government, through its agencies, those who prescribe, those who dispense and health professionals in general, the population and the pharmaceutical industry have important roles to

play in ensuring RUM. In Peru, the National Committee of Medicines, brings these players together and includes the civil society organizations, professional schools, universities, institutions of co-operation, churches and others.

With regard to specific actions to promote RUM, the Ministry of Health has made significant progress to increase access to medication, and to lower the prices of medicines by means of corporate purchases. We have also made strides in encouraging the use of EDLs, the formation of Therapeutic-Pharmacological Committees in hospitals and health centres, at the regional level so that their work is more effective.

Progress has been made in promoting teaching on the use of medicines, and in integrating curricular contents both in university programs and in secondary schools. Pro-Vida provides support on designing educative booklets for schools about RUM. Twelve universities now teach Pharmacology and Pharmacotherapy using the University of Gröningen methodology which is recognized by WHO as the best adapted education for Rational Pharmacotherapy.

At a national level, the government has developed and implemented best practices for prescriptions of medicines. The best practices of dispensing and for therapeutic drug follow-up are in the process of implementation.

Q: What difficulties are there in promoting RUM policies at a national level?

A: One of the most critical problems



A training manual for Ministry of Health staff in the supply of drugs, titled: "A guide on training methods for the supply of drugs and productions agents processes"

is the lack of involvement of the main actor. Inadequate and lax laws do not guarantee quality and prevent widespread access to medication; and the patients quite often, incorrectly use their medication and usually take them without a doctor's prescription. Health professionals who use inadequate standards in prescribing and dispensing of medication also contribute to the problem. These standards are worsened by excessive and overwhelming advertising campaigns from the pharmaceutical companies which use irrational and illegal means to entice those who prescribe, who dispense, including pharmaceutical technicians



and pharmacy aides.

Since the government does not have RUM as a priority the lack of resources is also problem.

Q: What future do you see for RUM in Peru?

A: Having considered RUM a pillar of

the National Drugs Policy and having created DIGEMID, a specific department in its management structure, I have confidence that we will continue to promote RUM. Moreover, the 2007 DIGEMID RUM Annual Plan has been approved. We coordinate work with different organizations to help achieve this goal. For example, there are advances in the proposal and elaboration of the National Essential Drug List. We are working to create Drug Therapeutic Committees and also to have medicine purchases done within the public sector. This would greatly lower medicine prices without lowering quality.

Q: What do you see as the pharmacist's role?

A: The pharmacist is the specialist of medicines. It is inconceivable to talk of quality pharmaceutical care without the promotion of RUM. As someone who is aware of drug issues, I believe that a pharmacist's role must be that of supervision, quality control of products and processes. He or she must assume the responsibility of managing, advising, informing and investigating, according to the principles of RUM. Because of his or her expertise in pharmaceutical issues, his or her participation is vital in the formulation of policies and regulatory mechanisms to ensure appropriate use of medicine.

Q: For the last 21 years PRO-VIDA has promoted RUM in Peru in diverse levels. What do you think are the positive outcomes of this work in the community?

A: I greatly admire PRO-VIDA because it is one of the faith-based organizations that helped the poor when the country was going through its most difficult times.

PRO-VIDA introduced and promoted the concept of RUM when it was unknown in the universities and in the public sector. I believe that PRO-VIDA's work has been extremely important not only for DIGEMID but for the country as a whole. We are now reaping the reward of PRO-VIDA's early work in RUM.

Q: What aspects of the community work of RUM promotion must be supported further? Do you know of other countries that have developed these strategies successfully?

A: Since it is difficult for the government to reach remote places, the health promoters and the grass roots pharmacies continue to be a good option to improve the access to medicines and healthcare. Education and training in the handling of medicines must continue. DIGEMID, together with PRO-VIDA, has developed a manual on the handling and use of medicines for those in charge of the Pharmacy's Office in the health centers. This is a handbook used to instruct the community on the correct use of medicines. There has been some success in implementing strategies to promote RUM in Asian and African countries. However in this region (Latin America), I have had the opportunity to share experiences with other regulatory authorities in the South American region countries including Chile, Argentina, and Brazil. Unfortunately RUM has not been well developed in most of these countries

Q. PRO-VIDA was set up to support the efforts of the community in obtaining access to health services and essential medicines and to make up for the absence of the government in this area. In your opinion, how do such efforts combined with those of the government ensure that RUM becomes a reality?

A: I believe that these institutions have helped in improving the access to services and medicines in remote settings and which government still finds hard to reach due to civil unrest, terrorism, budget constraints or shortage of qualified health care personnel.

The Ministry of Health in Peru has made an effort to improve access and supply of medicines. We have also managed to lower prices of medicines and achieve the goal of ensuring the lowest price available is maintained all over the country. Nevertheless, we still have difficulties in the distribution of medicines, for which the work churches and orga-

nizations like PRO-VIDA do is crucial. Although we have managed to increase availability in urban areas, shortage of supplies persists in the remote areas.

Q: Your final comments...

A: To our friends of EPN and PRO-VIDA, I would like to express my gratitude for this interview. Let us continue working on the promotion of RUM. Many African countries are developing important strategies in this field and it important to share our accomplishments, lessons learnt, best practices and the challenges we encounter to improve our work and further promote RUM. I believe that more frequent communication will facilitate learning from others experiences.

Additionally, I congratulate all the churches, all the sectors that support the work in the community, the work of community promoters which is a great support for all the official systems of health.

Although we have managed to increase availability in urban areas, shortage of supplies persists in the remote areas

Dr. Amelia Villar is the Head Director of General Direction of Medicines, Production Agents and Drugs (DIGEMID) a branch of the Ministry of Health which regulates the use of pharmaceutical products, medical materials, instruments and cosmetics which are available in the Peruvian market. It contributes to equitable access of essential drugs, to the population, based on an integral system of drugs quality assurance.

Josefa Castro Sáenz is a pharmacist and the Manager of the Drug Supply Area at Servicio de Medicinas PROVIDA in Peru and the EPN - Country Focal Point in Peru.

César Aylas Flórez is the Pharmaceutical Assistant

SENSITIZING THE PUBLIC IN BURKINA FASO ABOUT STREET MEDICINES

The phenomenon of 'street medicines' is widespread all over Burkina Faso. Street medicines are unregulated products whose origins are often unknown. CINOMADE, a non-profit association in collaboration with Pharmaciens Sans Frontières - Comité International (PSF-CI), have developed an Interactive Cinema Debate (ICD) strategy to educate and sensitize the public on the dangers of street medicines. The strategy involves the screening of a film, in this case "Tiim" (meaning "medicines" in Mooré, one of the main Burkinabè languages) which focuses on the street medicines phenomenon. This is followed by a facilitator-guided debate on the subject of the film.

Enclosed in plastic bags and displayed on a stand on the sidewalk of a street, carried in open cardboard boxes and hawked from one person to another; carried from village to village on a bicycle baggage-carrier for door to door sale, or neatly arranged on a mat or on a table in the middle of a market: this is how street vendors market their medicines to consumers. This phenomenon of 'street medicines' is widespread all over Burkina Faso. Street medicines are often unregulated pharmaceutical products whose origins are unknown, if not dubious, and therefore often have harmful effects on the health of their consumers. In spite of this, business is booming for vendors of street medicines.

PUBLIC AWARENESS CAMPAIGNS

In 2003, CINOMADE in collaboration with Pharmaciens Sans Frontières - Comité International (PSF-CI) directed a documentary entitled "*Tiim*"¹ on the subject of

street medicines. In 2005 to communicate and sensitize the public about street medicines, CINOMADE and PSF-CI used the documentary to conduct awareness campaigns in three provinces in the Northern region of Burkina Faso.

The strategy used to create awareness of street medicines was Interactive Cinema Debate (ICD) strategy. ICD consists of open-air public screening of a film which is followed by an audience debate on the subject of the film. The debate is guided by two facilitators, one male and one female. An ICD event lasts about four hours, typically running from 8pm up to around midnight.

In the CINOMADE/PSF-CI campaign, preliminary visits were made to all of the selected locations in the 3 provinces in order to meet local partners (health centre workers, owners of pharmaceutical stores, members of associations, etc.) as well as the administrative and community authorities. This ensured smooth running of the ICD events. In this campaign, a unique approach was taken: during the day in each location, the local people were interviewed on the subject of street medicines. These filmed interviews were shown the same evening to start the session before the film "*Tiim*" was screened. The evening program also included the screening of filmed interviews with managers of local pharmaceutical stores and a cartoon film about generic drugs entitled "*Ya boum yenga*."

The campaign managed to attract approximately 27,000 people in 12 different locations. A total of 210 people actively took part in the debates, of which 144



Ongoing debate after the screening of the film "*Tiim*"

CINOMADE

were men and 66 were women. The information collected from the debates helped to answer questions such as: Who are the street vendors? How do they sustain their businesses? What kind of medicines do they sell? What alternatives are there to street medicines?

Who are the Street Vendors?

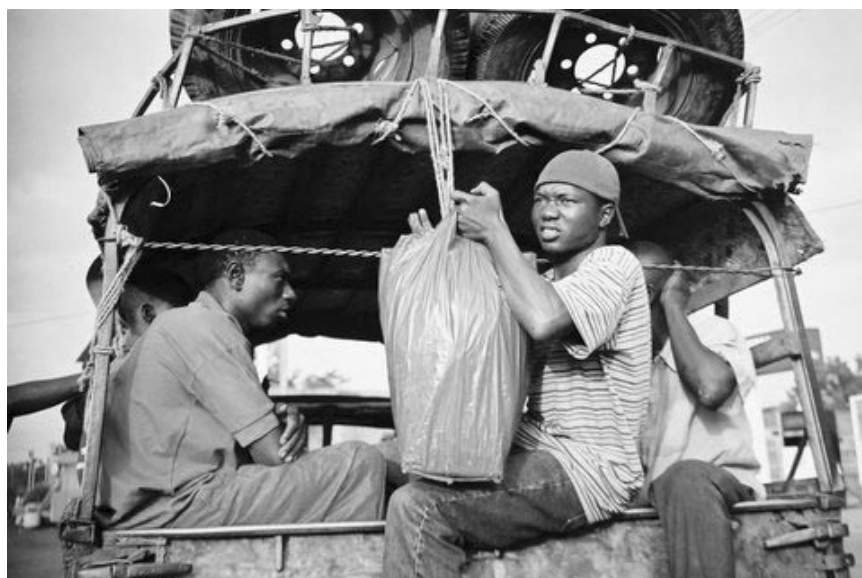
The street vendors of medicines are tradesmen who are hardly concerned for the health of their clients or the harmful effects that their products may cause. On the contrary, they use all kinds of strategies to keep their businesses thriving. A street vendor of medicines can be compared to someone who sells second-hand clothes or shoes. Their common goal is to market their goods to encourage their passers-by to purchase them.

Asked why he engaged in the sale of street medicines, R. Salifou a street medicines vendor interviewed in the village market of Ingané during one of the filmed interviews responded, *"Since I have a family to take care of, I must do something, that is why I sell medicines."*² *"I don't have to recommend a medicine to the client. Usually the clients have been treated before for the same illness and remember which tablets were prescribed on that occasion. Therefore when they fall sick again with the same disease, they look for the same medicine,"* declared Alidou, a medicines vendor interviewed in the village market of Youba.²

However medicine vendors do not know much about the medicines they sell. Their knowledge is often limited to what they can learn from the pictures on the package. According to Karim Compaoré, a street vendor and the main character in the film *Tiim*, illiteracy is not a barrier for the street vendor. *"Even if you cannot read, you can still sell medicines. It is good enough if you refer to the pictures on the boxes"*.

Although the sale of medicines on the street is illegal in Burkina Faso, this business is thriving because street vendors are rarely challenged by the authorities. This explains why these vendors conduct their trade openly. Furthermore, the income that is generated from the selling of medicines on the streets is often higher than the average income of a Burkinabè.

CINOMADE



"On a good day, I can raise up to 10 000 FCFA (about 20 US Dollars)" said Karim Compaoré in the film *Tiim*.

Street vendor Karim Compaoré with his bag of medicines

How Do They Sustain The Businesses?

Easy accessibility

Street vendors seek out their clients wherever they can find them, be it at home, at the workplace or on the streets. They know their clients well as they see them often and chat with them in their own language to establish a bond of trust. They often sell their wares on credit for the convenience of the customers who cannot pay immediately.

"I live 12 kilometres from here. There is no pharmaceutical store there. When I have a headache, I prefer to buy drugs from a vendor who comes to my home, instead of cycling all this distance to come here, because the pain might get even worse on the way here," said one of the participants of the ICD session held in the village of Bidi.³

"If my children are sick, I buy medicines on the market. Often, the vendors come to us and I seize the opportunity to buy some medicines," said S. Azeta, a mother of twins.

"When he comes, what does he say?" asked the facilitator of the evening. *He says: "Come and see! Come and buy medicines!"*

Cost of the products

The prices offered by the street vendors have a big influence on the consumers.

Although the sale of medicines on the street is illegal in Burkina Faso, this business is thriving because street vendors are rarely challenged by the authorities



"We all know that the packaged medicines from the pharmacy are better than those exposed to sun and dust. But if you are not able to feed your family, it is difficult to go to a pharmacy. This is what pushes us to buy in the streets." Was a response echoed by ICD participants.

"If you fall sick and you have only 50 FCFA (approximately 10 US Cents) with you, what would you do?" D. Salimata interviewed in the village of Bidii² answers: *"I'd buy medicines at the market for 25 FCFA and I would save the rest."*

What Kind of Medicines do Street Vendors Sell?

Asked *"what kind of medicines he sells"*, Alidou a medicine vendor in Youba replies, *"Paracetamol, Ibuprofen, 'Medic 55', 'Two colours', ointments and others."*²

While Karim Compaoré, the main character of the film *Tiim* explains, *"I sell medicines to treat human beings, but as many people are asking for tablets for their animals, I have started selling them too."*

Unfortunately street medicines often have harmful effects on the health of the consumers. *"I don't like street medicines, because you can take them and a few moments later, you think that you have been cured of your disease, but this is only temporary. The illness will come back soon and often it even becomes more complicated,"* stated a participant at the evening debate in Ridimbo.³

You can also buy doping substances from the street vendors, like the *"Blue-blue"* and the *"14s"* for example. *"Out of every twenty people here, you will not even find three who do not take the '14s' because if you take them, you will not be hungry anymore and you will have the strength to work hard. I started by taking two, then four, five, and nowadays I take nine of them per day. And to make me sleep well at night, I take two 'Blue-blue'"* said a participant at the debate in Kera-douré.³

Alternatives to Street Medicines

In the documentary *Tiim*, and during the evening debate sessions of the awareness campaign, essential generic medicines were recommended as the alternative to street medicines.

Essential generic medicines are not difficult to get thanks to the pharmaceutical stores set up in the health centres. Generics can be used to treat up to 80% of the pathologies found in Burkina Faso. These medicines are of good quality and can be taken without any risks while their prices are more affordable thus making them accessible to poor populations.

Despite all these, it was noted during the ICD sessions that there is still a lot of work to do regarding information and sensitization to guide the public towards the use of generic medicines. A lack of communication between the health authorities and the population on generics was observed.

Several participants of the awareness campaign did not know what generic medicines are. When asked the question *"What does generic medicine mean?"* Diallo one of the participants responded, *"I am sorry, but I do not know this disease, I have never heard of the word."*

To promote the use of generic medicines, interviews of the managers of pharmaceutical stores explaining the advantages of generics were filmed. These interviews were then screened for the participants of the evening film session.

Moumouni Sodr  is audio-visual technician by profession and in-charge of the Interactive Cinema Debate tours of CINOMADE.

CINOMADE is a non-profit association based since 2001 in Burkina Faso, specialised in creation, animation and sensitisation. They use audio-visual tools, direct films and diffuse them through four different sections (Interactive Cinema Debate, Youth, Women and Video Clubs).

Reference:

- 1 DVD/Video *"Tiim"*, produced by CINOMADE (www.cinomade.org, email: cinomade@hotmail.com) and PSF-CI, directed by Berni Goldblat, length 31 minutes, available in Moor  with French or English subtitles, December 2003.
- 2 Source on video, available from CINOMADE
- 3 Source on tape, available from CINOMADE

WHAT WOULD JESUS DO?

MATTHEW 21: 12, 13

*The following reflection has been prepared by **Manoj Kurian** of World Council of Churches (WCC)*



An indignant Lord Jesus physically cleansed the Temple, as he saw that worship had been commercialised.

Those '*who were buying and selling*' in the Temple traded in animals which were used for sacrifice. The '*money changers*' provided currency that was acceptable in the Temple in exchange for the Roman currency which was considered defiling to God as it bore the image of Caesar, the Roman Emperor. Although this trade seemed to have a legitimate role, in the eyes of Jesus the excessive commercialisation defiled the holy place of prayer. In response, he acted firmly and with authority, by boldly overturning the tables and out casting the tradesmen.

In the present day, the cleansing of the Temple should not only be seen as an image of cleansing our souls, but also as a sign to purify society. I believe Jesus saw the Temple as a place where all believers would have free access to worship God as a fundamental right for every human being.

Today there is the flagrant tampering of the fundamental right of humanity to have fair and equitable access to balanced nourishment and good health. There are also glaring examples of societies and institutions created by society, thereby shirking its

responsibility to ensure fair and equitable access to medicines for all.

Increasingly, provision of services is driven by market forces and not by the needs of the majority. Majority of research, innovation and development is directed by the needs of the minority who can afford. The profit motive of the market seems to decide what medicines are good for us, not necessarily the 'Essential Drugs List'.

Questions for reflection?

1. Is the situation described above acceptable?
2. Can we allow the instruments created to serve humanity to be used for the enslavement and impoverishment of people?
3. Should business and industry conspire to suppress potentially cheap yet essential 'bread' and only promote 'expensive pastries and cakes' which have a higher profit margin?
4. Should nations and societies suppress 'Essential drugs' in favour of superfluous and non-essential medicines, which may bring greater profits?
5. What is our role and what should we do?
6. What would Jesus do in times like these?



Essential drugs monitor

This newsletter aims to address issues on national drug policies, current pharmaceutical issues, rational use of medicines, access, operational research and educational strategies. Published twice a year in English, Chinese, French, Russian and Spanish, the newsletter is designed for policy-makers, prescribers, health educators, administrators and health development organizations. Readers are encouraged to make contributions to the newsletter with the authors' guidelines provided.

Available online at: <http://www.who.int/medicines/publications/monitor/en/index.html>

Promoting Health or Pushing Drugs? A critical examination of the marketing of pharmaceuticals

This book is an excellent resource on the murky world of the pharmaceutical industry's promotion practices, critically examining the key issues surrounding drug promotion. The book discusses a wide range of issues including: the cost of promotion, industry codes and practices, direct-to-consumer advertising of prescription medicines, post market surveillance studies and the consequences of uncontrolled drug promotion. The final chapter makes suggestions towards solutions to address the excesses of drug promotion.

To order, email: info@haiweb.org

Published by: HAI Europe; 1992; 46 pages;

ISBN 90-74006-03-5

Practical Pharmacy Newsletter

This newsletter was first published in 1996. It was created to provide appropriate and practical information on drug supply and management for health workers, particularly those with no specific training in pharmacy. In 2000, after fifteen issues, production stopped.

The newsletter was relaunched in October 2006 by: Health Action International (HAI) Africa, Ecumenical Pharmaceutical Network (EPN), Mission for Essential Drugs and Supplies (MEDS), and Sustainable Healthcare Foundation (SHEF). This issue focuses on the topic of malaria. The older issues of the newsletter are currently being updated and will be reissued soon. To subscribe, send a request to: practicalpharmacy@gmail.com

ABC of Rational Use of Medicines: A handbook for community education

The book is designed to help consumers to understand basic issues about medicines use; to create awareness about the risks of misusing or abusing medicine; and to help individuals and groups to take personal and collective actions that helps the community to use medicines wisely. It is a useful handbook for students, NGOs and people working in health at the community level.

Author: Godwin Nwadiobia Aja,

Published by HAI - Africa, ISBN 978-35088-0-6

Guide to Good Prescribing: A Practical Manual

Primarily intended for undergraduate medical students about to enter the clinical phase of their studies, this book provides guidance to the process of rational prescribing. It contains many illustrative examples and teaches skills that are necessary throughout a clinical career. Postgraduate students and practicing doctors may also find it a source of new ideas and perhaps an incentive for change.

It is available in print in 15 languages including French, Spanish, German, Slovakian, Arabic, Japanese and Chinese.

Available in English online at: <http://www.med.rug.nl/pharma/who-cc/ggp/homepage.html>.

Published by: WHO/EDM, WHO; 1994, 115 pages

Developing Pharmacy Practice - a Focus on Patient Care

This handbook is written for pharmacists, educators and students in all healthcare settings. It presents a step-wise approach to pharmaceutical care within a general practice environment anywhere in the world.

It can be used for self-directed learning as it provides practical examples and care models. The book is available in English and a French version will be available soon in both electronic and print formats.

Available at: <http://www.who.int/medicines/> under "latest publications" on the WHO Medicines home page.

Contact deals with various aspects of the churches' and community's involvement in health, and seeks to report topical innovative and courageous approaches to the promotions of health and healing.

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