



## A call to SAVE LIVES AND SAVE MONEY

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**R**ational Use of medicines is at the core of pharmaceutical best practices. It 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."<sup>1</sup>

In November 2006, EPN organized an essay writing competition amongst its Network members, to promote rational use of medicines. The entrants to the competition were expected to write an essay describing how irrational use of medicines was happening at organizational or country level and suggest practical, achievable methods that could be used to effect a lasting change to lead to rational use of medicines. The competition officially closed in January 2007 with thirty entries received. The articles featured in this special edition newsletter are the winning essays from this competition.

The winning essay - *Who is murdering 'Rational Use of medicines'?* is by Sujith J. Chandy. The essay is written in the form of a mock murder trial where the victim is rational use of medicines. The witnesses of the trial are the patient, doctor, pharmacist, pharmaceutical representative and government official who give their roles in promoting or discouraging RUM. Joe Varghese's essay *'Bringing rationality back into medicine use'* highlights the causes of irrational use that are unique to India and how the situation can be remedied. In addition, the essay emphasizes the importance of optimizing RUM in non-government hospitals. Other winners were Jacky Ntuemba Muela (*Pains of the little girl*), Guibrina Ouédraogo (*The fear of stigma*), Godwin Aja (*Supporting local women for rational use of medicines in Nigeria*) and Subal C. Basak (*Rational use of medicines in India*). To all the winners: congratulations! To those who participated: thank you very much! To those who did not: we encourage you to do so next time.

We hope that you not only enjoy reading this newsletter but also use the suggested mechanisms to promote RUM in your different parts of the world. 📧

**- Other than minor editing, the essays in this newsletter have been published in their original form.**

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1 (World Health Organization, 1985). WHO: The Rational Use of drugs: Report of the conference of experts. Geneva: WHO; 1985.

## WHO'S MURDERING 'RATIONAL USE OF MEDICINES'?

by Sujith J. Chandy

### A trial

I would like to invite you all to the 'trial' of our times. This trial will be quite different to what you've seen or experienced. Though this is a murder trial, the victim has not yet been killed, but is undergoing a 'slow but sure' death. However, if we can identify those responsible, bring to the surface the factors contributing to the slow death, and institute a feasible and effective rescue plan, we may save the victim! Though the trial is imaginary, the players in the trial are real and representative of various sections of Indian society. Their responses are true to their everyday experiences. By the way, I forgot to mention...you the reader...are the jury and judge! Shall we begin? As prosecuting lawyer, let me lay out the scenario. India is a vast country with diversity in religion, language, culture and caste. There's

a wide gap between the poor and rich, rural and urban, educated and illiterate. This diversity is even more so in the area of health and health access. The issue of inequity gains unfortunate prominence in the management of various illnesses. This is especially so while treating infections, bringing into the spotlight the way we use our antibiotics. Unfortunately, we do not use antibiotics in a proper manner! They are often given inappropriately, for too short a duration and often at the wrong dose. The extensive misuse of antibiotics is a prime example of the precarious situation that the principle of rational use of medicines finds itself in. I would like to submit therefore that by focusing on the misuse of antibiotics in the country, the issues in rational use medicines can be put forward too.

### The case

Allow me to introduce the case. Virtually the whole country is exposed to infectious diseases, right from a common cold, to diarrhea, tuberculosis and HIV. You name it, we have it in India. Of course, it also means that pharmaceutical companies make use of this huge demand and pour antibiotics into the market for public use. Along with the high mortality and morbidity associated with infectious diseases, there has been both overuse and misuse of antibiotics. It has been reported that almost two thirds of patients going to health facilities for illnesses such as diarrhea and fever, which are predominantly viral in aetiology, are getting antibiotics. It has also been indicated that almost half of all patients attending health facilities are receiving antibiotics. One wonders about the situation if these reports were to include patients who do not visit a regular doctor, but go to quacks? One can only imagine what happens to antibiotics once they reach home. Do they get consumed in the prescribed format, and most importantly, does the course get completed? Unfortunately, the chances are minimal and I'm sure that even in our own lives we've had the same experience! Health professionals often give antibiotics for 2-3 days rather than full courses. Many a time, the appropriate antibiotic is not given and the latest (not necessarily the best) antibiotic is given. Often, combination antibiotics are given without a clear diagnosis. Many patients do not go to doctors but prefer to go straight to a chemist and ask for an antibiotic for their cold. Does anyone ask for the prescription? Let me also say that there

are other players besides the public, the doctor and the pharmacist. The industry plays a prominent role in overuse of the antibiotic. After all it's all about profit and incentives rather than the art and science of medicine. The government, its policies and regulations also play an important role. Unfortunately though, in a country where regulations are often made with gusto, but not always followed, where would an antibiotic policy be?

This sad scenario has produced a sad consequence – the slow death of the antibiotic, the victim in today's trial. The primary reason for this death is the rapid rise of drug resistance among microbes and thus the inability of the antibiotic to work! After all, it's all about 'survival of the fittest'! The microbes are not going to take the fight against them lying down and constantly try to evolve ways and means to defeat antibiotics. This has led to chaos in hospitals especially in patients with nosocomial infections. They end up having to buy costly and second or third generation antibiotics. Many antibiotics are ineffective and so what is the poor patient to do? There is bound to be a situation in the near future, where there is nothing he or she can do, but hope for a miracle. That's why I sincerely believe that the irrational use of drugs, especially antibiotics, is leading to a problem worse than many other diseases and disasters. One which can affect all of us and possibly wipe out the entire human race!! Therefore ladies and gentlemen, with the utmost urgency, let's call the players in this sad story and ... let the trial begin!

### The witnesses

First to take the stand is the poor patient – “I really have nothing to say. I just go to the doctor and tell him my problems. He spends very little time with me. He gives me some drugs and I take them. As soon as I get better, I stop the drugs. If my family members become ill, I give the same drugs to them. Sometimes, when I really can't afford to go to the doctor, I go straight to the chemist shop and some tablets are given. It usually works! How am I to know that there are such things as viruses and bacteria and that antibiotics should be taken only against bacteria? I

don't even know what an antibiotic is; let alone what it looks like! We common folk are not doctors and no one tells us anything anyway. Life is difficult. We just try and survive, one day at a time. So there's no point blaming us!”

At this point, the doctor interrupts – “Listen, I've a lot patients waiting for me at my private practice. So I would like to say a few words and quickly leave. For people's health problems, you tend to blame only us. You've got to realize that most of the time patients put us under pressure. Some of them demand antibiotics, especially the parents of sick children. If we refuse, they go

to another doctor or the pharmacist and get antibiotics. Patients also often get fed up of the old drugs. We have to surprise them with something new. Otherwise they don't consider us knowledgeable enough! Don't blame us if we give only two or three days of antibiotics. Patients say they can't afford more. Sometimes, we have to give multiple antibiotics since we often don't have adequate laboratory facilities to prove what type of bacteria it is. After all, it's a life and death game and we're here to give life! Bye bye. Have to rush! My patients are waiting for me!”

The pharmacist is called to the bench – “We also have to survive. You know how business is. If we don't sell, somebody else will.

What can we do if doctors prescribe antibiotics? We have to honour their prescription. We might sell antibiotics without a prescription, but that's only if we know the patient or an old prescription is brought. We always ask them their symptoms before giving antibiotics. Yes, we do have incentives to sell certain brands and certain antibiotics. But surely, that's part of the business and you can't fault us for that!”

The medical representative butts in – “You don't know how difficult it is. If we don't give incentives to the doctor and chemist shop, no one buys our brand! It's all about figures! My boss is always breathing down my neck! In all fairness, he has to give a report to his superiors and based on that we get our incentive and promotion. I know that people are supposed to take antibiotics carefully, but can't you see that we are just doing our job and promoting the business?”

The government official walks in late – “Prove to us that this antibiotic issue is a problem and we'll do something about it. After all, we're here to take care of the public! As soon as you give us evidence that people are misusing antibiotics and other medicines, we'll take action and put laws in place. Until then, we have more pressing matters to take care of! People are dying from AIDS and there's the terrorist threat. I just can't understand why you're making this such a big issue, as if people are going to die! Whenever I get a cold, I take the latest antibiotic for two days and nothing ever happens to me! I need to go back to my

next meeting with the minister. He's got an election coming up!”

At this point a few people move forward, unheralded – “We're just poor farmers, but we want to make our stand clear. It's getting very difficult to survive in today's world with big farm houses and industries taking over. With climate change much of our produce gets damaged and the rest of it is often disease ravaged. We need to use drugs on our farms to salvage something for our efforts.

We need to keep our cows healthy so that they give enough milk. Therefore we give them antibiotics. How would any of you know our misery and daily fight for survival? We have a moral and legitimate right to use antibiotics to protect our stock and produce. Without that we have no livelihood.”



### The verdict

Dear jury, we have exhausted our list of speakers. Each narrated their experience with antibiotics frankly. The common thread was that they needed to survive. But I wonder, who's left to think about the survival of the antibiotic and thereby the survival of mankind! Yes, jury, let me have your decision: *Who's murdering the antibiotic?*

The jury foreperson answers "After listening to everyone, we've come to a verdict. *Who's murdering the antibiotic? – The society is murdering the antibiotic.* Yes, all of us are responsible for killing the antibiotic. *We're all responsible for killing rational use of medicines* and misusing our medications." Well, the trial has reached its conclusion, but the problem needs a solution!

Therefore dear reader, it looks like it's down to us, the society, to save antibiotics and the rational use of medicines movement. We need to plan and institute a strategy to save the antibiotic. This strategy can help develop mechanisms for rational use of other medicines too. In order for it to be executable, sustainable and successful, the strategy, as outlined in table 1, needs to be multidimensional, both in method and involvement. It could then be used to effect a lasting change and ultimately lead to, rational use of medicines.

### Conclusion

As a reader, I'm sure you realize that if these suggestions are to be put into practice and the problem tackled effectively, it needs the involvement of the 'whole society' and not just a few caring, proactive individuals.

It's therefore upto *us* to act *now*, act before antibiotics and other essential medicines get totally eliminated. The challenge before us is immense. After all, irrational use of medicines is bigger than AIDS and terrorism put together and the consequences can potentially affect all of us, whether we like it or not! The solution however is not that easy. To add to the complexity of the challenge, we need to remember that there are many players and factors which can influence the final

outcome. Nevertheless, it's essential that we remain positive and attempt to move in the right direction. It's important that we rise up to the challenge!

We started this trial with a question, "Who's murdering the antibiotic?" We conclude this trial with a question too! A question which will hopefully plant a seed in your mind, and a challenge to your spirit. A question which spurs you on to the goal of rational use of medicines. This question is to be answered by *you* the reader, a responsible citizen in an often uncaring society.

The question - **"Medicines have the power to save you...but do you have the power and the will to save medicines?"** 

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Table 1:

## STRATEGIES TO PROMOTE RATIONAL USE OF MEDICINES:

### A multi-pronged strategy involving primary stakeholders:

#### 1.Sensitize the public:

- Make the public aware of various types of illnesses and the various drugs which need to be given. Knowledge is power, power to save!
- Make people aware of infections and their treatment will make them think twice before taking a drug. It will also make them sensitive to the principles of rational use of medicines.
- This knowledge is to be disseminated as widely, as simply and as attractively as possible, through media and other modes by which people's attention can be captured.
- Schools, women's self help groups, public opinion leaders should all be involved and made aware of medicine misuse and its consequences. They in turn can spread the message to their families and villages.
- The consequences of irrational use of medicines need to be highlighted and dramatized in an effective and lucid style. Often the fears of a community, if channeled in a proper and planned way, may lead to positive outcomes.

#### 2.Bring on board the doctors:

- Bring together doctors through their various forums. Present the facts about irrational use of antibiotics and other medications. Give them evidence on details such as local and national drug resistance levels.
- Let them discuss these facts, the implications for their own practice and how they could possibly rise up to the challenge.
- Allow them to vent their frustrations, limitations and difficulties.
- Involve them in making standard treatment guidelines with evidence based input. Participatory decisions will have much more compliance in the long run.

#### 3.Pharmacists as a bridge between the public and doctors:

- Pharmacists should be included in this because many patients go directly to the chemist shop rather than visit the doctor. Group discussions to bring out their problems can be useful.
- Give them continuing education so that they are in tune with developments in the field. It will make

them realize that they play a key role.

- Ask them to put in place basic policies too, such as an agreement to give simple drugs first and use less of combination drugs.

#### 4.The role of the industry and government:

- If there are effective laws on the way medicines can be advertised both in the media and on the ground, many pharmaceutical companies may think twice before promoting various irrational combinations and ineffective preparations.
- Incentives to health professionals and their role in choosing medicines and brands need to be studied well. Possible regulation against certain incentives needs to be considered. Mechanisms should be put in place to change attitudes and practices of professionals regarding these incentives.
- Evidence needs to be given to the government on the harm and the economic burden irrational use causes to the society. Sensitizing the policy makers' minds in a truthful but intelligent way may make all the difference. Public pressure and the media can also play their part in impacting policy decisions.

#### 5.Stakeholders' involvement:

- The involvement of other players such as farmers is equally important. Many antibiotics are overused to keep animals healthy and agriculture viable. The development of a policy restricting use of certain antibiotics for non-human use and certain others for humans may help to avoid many of these concerns. Continuing education and protocol development will also play an important role.
- Complementary medicine specialists – Sometimes these specialists use allopathic medicine and it's difficult to monitor their use. Hence they need to be educated on allopathic therapy. However, efforts must be made to restrict allopathic medicine use to appropriately trained health professionals.
- Quacks dispense a lot of drugs most of which are concoctions. In India a significant number of the public visit quacks. Quacks need to be identified, and the law of the land needs to be effective enough to deal with them. The public also needs to be made aware of the dangers of being treated by quacks.

## SUPPORTING LOCAL WOMEN IN PRACTISING RATIONAL USE OF MEDICINES IN NIGERIA

by Godwin N. Aja

### Introduction

Nigerian women have the potential to build on the achievement of a model Nigerian woman who fought relentlessly to reduce the prevalence of fake drugs in Nigeria. She sanitized the drug regulatory system by uncovering underhand deals involving the sale of substandard medicinal products to Nigerians. She blatantly refused to sacrifice the lives of babies, mothers, children and indeed the health of over 120 million Nigerians on the altar of drug peddlers. Under her regime, as the director-general of the National Agency for Food and Drug Administration and Control (NAFDAC), she transformed the country's drug distribution channels, and redefined the way NAFDAC "promotes and protects public health through the active control and regulation of importation, exportation, distribution, advertisement, sale and consumption of processed foods, drugs, bottled water, chemicals (including medicinal drugs) and cosmetics."

### Community involvement

The story of Dr. (Mrs) Dora Akinyuli tends to motivate every Nigerian woman to rise up against fake drugs. However, there seems to be no organized way by which rural and urban women networks are supported by NAFDAC to engage in the promotion of rational use of medicines at the community level. To help sustain the momentum initiated by Dr. Akinyuli, there needs to be a mechanism for mobilizing women groups to promote rational use of medicines in a sustainable way. This would require local NAFDAC administrative units working closely with existing local women groups/associations, zone-by-zone, and supporting them to develop monthly, quarterly and annual programs and activities that meet their needs. Such programs and activities may include campaigns, workshops, festivals, songs, drama sessions, and role plays/skits on rational use of medicines.

Women organizations in remote locations without access to an organized health care system can also be supported by NAFDAC to set up local drug stores with the aim of ensuring that drugs, especially over-the-counter medicines, are obtained from the right sources and dispensed by the right persons.

The reasons why Nigerian women would like to become more actively involved in promoting rational use of medicines include:

- they are responsible for caring for anyone in the family who is sick, which may involve making decisions about whether or not to seek medical help.
- they often need medicines for their reproductive health (for example, contraceptives to control fertility) which makes them vulnerable to unethical drug promotion.

NAFDAC, therefore, needs to use her local administrative units as machinery to support local women organizations to embark on programs on rational use of medicines on a monthly, quarterly and annual basis. Regular training on the benefits and detriments of medicine use and how to recognize fake medicinal products would be an important component. Education on the harmful practices of drug peddlers such as pouring water (not even clean water) in a plastic bag and selling it as drips, or cutting pieces of chalk and marketing them as *Panadol* (pain relievers) will be necessary.

### Conclusion

Women support networks are important allies in community health. They have the capacity to share useful information on issues related to family, health, education, agriculture, economics, etc. NAFDAC therefore needs to extend a hand of fellowship to local women groups/organizations. They should be recognized as partners in progress. Involvement will help generate feedback. Experiences gained can be used to formulate new strategies to ensure that safe medicines are available in rural and urban communities. 🙌

**Godwin N. Aja** is an associate professor of health promotion and education at Babcock University, Nigeria. He is also one of two EPN Country Focal Points for Nigeria.

# RATIONAL USE OF MEDICINES IN INDIA

by Subal C Basak

## Background

India is a multicultural society and consists of 28 states and 7 union territories with a total area of 3,287,590 sq. km. It is the second most populous country in the world. In July 2006 the population was estimated to be 1.09 billion. India accounts for only 2.4% of the total land area worldwide and yet it supports about 17% of the world population. According to the national health policy, in 2002, infant mortality rate (IMR) per 1000 live births was 70 as

compared to 31 in China and 7 in UK. Health care in India is primarily financed directly by patients themselves. Government expenditure on health as a percentage of GDP is averaged at 0.9%.

## Rational Use of Medicine

All medicines work best in keeping a patient healthy when they are used wisely and as directed. Unfortunately, there is consistent evidence that the prescribing and use of medicines in India, like many other low-income, developing countries, is sub-optimal. Well

known examples are inappropriate combinations of medicines, polypharmacy, poor patient compliance and overuse of antibiotics or injections. There are many reasons for this dismal situation. Key among them are the doctors' limited access to unbiased and independent sources of information on medicines. However, there is no systematic and comprehensive data on the utilization of medicines in the Indian population after they have been marketed and prescribed.

## Medicine use scenario in India

More often than not, the use of medicines is dictated by the prescribers. Doctors, in the private sector, prescribe and dispense medications directly to patients. Pharmacy services are often inadequate and therefore patients are unaware of important information on drug use. Many community pharmacies function using the name of registered pharmacists who are seldom present at the pharmacies. Currently, an estimated 40,000 to 50,000 branded formulations are sold on the Indian market. Over 100 brands of omeprazole, paracetamol and cefadroxil exist in the market. All medicines can be availed over-the-counter (OTC) without prescription. Self-medication is widespread among educated people often for trivial and self-limiting ailments. As pharmaceutical companies influence doctors through their sales representatives who often have biased information to sell their products, ethics take a back seat. Above all, doctors are considered supreme by patients and their reluctance to clearly explain prescriptions results in poor compliance. The regulations for medicine sale and enforcement mechanisms are very weak.

## Irrational use

An example is given of a patient suffering from diarrhoea for two days with passage per rectum of necrotic mucous and blood. He visits a doctor who gives him a prescription to ease the discomfort and requests him to undergo some tests. After the results of the clinical tests the doctor prescribes metronidazole 500 mgs thrice daily for five days. However, after a couple of months the patient visits the doctor again as he has developed similar symptoms. It turns out that the patient had stopped taking the medication after two days once he began to feel better. Unfortunately this situation is repeated several times as patients prematurely cease to take their medication once they feel better.



All medicines can be availed over-the-counter (OTC) without prescription. Self medication is one of the main causes of irrational use of medicines.

Polypharmacy is another cause for irrational medicine use. I wish to illustrate this point with my daughter's treatment. When she was younger, I would consult a child specialist for cold and viral fever. On one occasion the prescription for viral fever with running nose contained seven medicines! These were erythromycin tablet 250 mg, paracetamol tablet 250 mg, 1 bottle of cough syrup, ambroxol tablet, cetirizine tablet, Promethazine tablet

10 mg and albendazole tablet. On another occasion a specialist prescribed eight medicines: cetirizine, calamine lotion, paracetamol, erythromycin, antacid (digene brand), albendazole, promethazine and vitamin C for my daughter's *suspected* urticaria!

In these two examples, the doctors had most probably been offered hefty rewards as incentives to prescribe the medicines by pharmaceutical sales representatives.

Another example is about a month ago, I told an eye specialist that gatifloxacin has been withdrawn from the western market when he prescribed gatifloxacin drop for my pink eye condition. In spite of my argument, he advocated for the gatifloxacin drop which is four times costlier than common antibiotic drop and also prescribed a recently marketed antihistaminic which is three and half times costlier than cetirizine.

### **Irrational use of medicines - Strategies for betterment**

To combat the situations described above and others, the following simple strategies and interventions, would assist to promote rational use of medicines:

- The first and foremost strategy would be the removal of non-essential medicines from the market. This would require efforts from doctors, the society, pharmacists and politicians.
- Government should launch and support organized scientific studies to find out the extent of problems – how medicines are promoted, distributed and sold in retail outlets and the other institutional setups.
- Regulation is required in preventing the use of third generation potent medicines including antibiotics in the primary level of healthcare where doctors are in private practise.
- Unethical promotions (offering gifts to the prescribers, exaggerating efficacy and ignoring adverse reactions by the companies) of medicinal products should be stopped.
- Regulatory authorities should ensure that prescription medicines are sold strictly according to prescription and OTC medicines against cash memo.
- NGOs, independent medicine bulletins and government bodies need to provide up-to-date and unbiased information on medicines and to propagate the concept of rational use of medicines among doctors. This information should also be printed in local languages to create awareness among the public.
- The role of pharmacists in India, hitherto is underutilized. They should play a key role in promoting rational use of medicines.
- All these will be a reality when medicine manufacturers, medicine distributors, doctors and medicine monitoring agencies play their roles as they should. After all, attempts to promote rational use of medicines will be futile unless all concerned are encouraged to follow the minimum ethics and norms in their respective practices. 🙏

**Subal C. Basak** is studying pharmacy at the Annamalai University in India

## PAINS OF A LITTLE GIRL

by Jacqueline Ntumba Muela

**M**rs. Marie Masika is a tomato seller at the central market in a small town in the province of North Kivu in the DR Congo. She is 25 years old, married and a mother of 4 children. Marie does not know how to read or write because she was given for marriage at the age of twelve as her parents favoured the schooling of her three brothers over her education. Her husband, who knows how to read and write, often works in the field, 20 kilometres away from their home and stays away for weeks at a time.

One morning, Marie, whose 6 months old daughter, Denise, had diarrhoea all night long, goes to her neighbour, Kahindo, to seek advice on the child's condition. Kahindo has a seven-month-old boy who also suffered from diarrhoea two weeks prior. She thinks that Denise has the same illness like that of her son. Kahindo offers Marie 30ml of cotrimoxazole suspension which was part of her son's medication. After taking this medication, Denise seems to be feeling better. Two days later, Denise has diarrhoea again and because of lack of money, Marie goes to see one of her cousins who offers her metronidazole suspension which had been prescribed for her 5 months old baby. After three days with the new treatment, Denise seems to be getting her energy back. However two days later Denise has serious diarrhoea again and starts vomiting. Once again Marie goes to a friend to seek for medication for Denise who is now almost dehydrated. Her friend gives her oral rehydration salt solution and advices her to go the health centre or hospital which offers free services for children whose parents are poor.

On arrival at the hospital Denise is admitted and examined. The exams reveal that she suffers from an ascariasis. After three days of treatment with mebendazole, she is feeling better. The nurse in charge informs Marie that she must not let Denise sit on the ground and that she must take her to the health centre for vaccinations or at the least sign of an illness.

The main causes of this irrational use of medicines include:

- lack of information on both Marie's part and that of her friends
- poverty which leads Marie to "consult" her friends for advice rather than visit a healthcare facility.

This situation can be rectified by following the steps outlined in the side bar.

### Solutions

1. Dispensers must inform mothers that they should not share medicines prescribed for their children with other children who may have similar symptoms.
2. Continuous training is necessary to improve dispensers' services.
3. Educate and raise the awareness of mothers to take their children to the health centre at the least sign of a disease because for children an illness is an emergency. This sensitisation can be done through radios and through posters with self-explanatory drawings as several of these women may be illiterate.
4. Urge mothers to take their children for vaccinations and preschool consultations where they can get information on how to care for their children's health.
5. Inform mothers on the dangers of self-medication, which in some cases can even cause the death of a child. 

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## BRINGING RATIONALITY BACK INTO MEDICINE USE

### Can institution-focused participatory interventions make a difference?

by Joe Varghese

Medicines have significantly increased the capacity of human resources to solve health problems. Making drugs available and ensuring that they are rationally used is thus a priority for every health system. Unfortunately the pharmaceutical sector in third world health systems suffers from a series of problems ranging from the inaccessibility of medicines to inappropriate prescription and usage of medicines.

Health care in India, is mainly financed directly by the people and most people access health services outside the government system. The government spending on health care is about 1.7% of Gross

Domestic Product (GDP) and the services offered are inadequate. Patients who use the government health care system often have to pay for a significant part of the drug costs. The social, economic and health cost is usually higher when drugs are used improperly.

Medicines are used rationally when patients receive the appropriate medicines, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community [WHO 1985]. However, for the following reasons, this is not generally practiced in the healthcare institutions in India.

#### Causes of irrational use of medicines in india

- i) In India, a large number of fixed dose drug combinations are available in the market. However, studies have shown that many of these combinations are unscientific. Cough mixtures, painkillers and tonics contain one or more inessential drugs which add to the cost and side-effects of the drugs. This leads to loss of the buyers' money [Anant Phadke and Abhay Shukla, 2004: Mira Shiva and Wishwas Rane, 2004]. Unfortunately many of these drugs find their way into hospital pharmacies.
- ii) There is a dearth of unbiased information on drugs. Independent, unbiased and scientific information is essential in order to make rational choice of a drug.
- iii) As with other management systems, a monitoring system with feedback is essential for proper drug use systems in hospitals. It has been shown that interventions such as unfocused drug information, treatment guidelines without active follow-up and non-interactive communication efforts have no measurable impact [Jonathan D, 2003]. In the absence of a monitoring system for rational drug use in hospitals, staff may not be encouraged to adhere to it.
- iv) For many doctors, the representatives of the pharmaceutical companies are often the only source of information. Often this information is biased.
- v) Doctors are subjected to continuous pressure from pharmaceutical companies to prescribe their medicines. This pressure may take the form of incentives, gifts, sponsorship of trips, free supplies, etc
- vi) The application of essential drugs concept has been limited to the public sector in India. This coupled with the above factors has increased irrational use of medicines.

Can the essential drugs concept and its tools be used in creating rational use of medicines systems in non-governmental (private and NGO) hospitals?

#### Strategies to optimize the rational use of medicines in non-governmental hospitals

An Essential Drug List (EDL) and a drug formulary are the two important and useful tools for developing rational drug use systems. Table 2 describes how these two tools can be utilized with potential benefits.

However, our experience has shown that essential drug list and drug formularies, when available at the national level, are not adequate by themselves to promote rational use medicines especially in non-governmental hospitals. Prescribers may have different viewpoints from the drug formulary information on what is a rational prescription. It is important to convince them about the choice of medicines and the accuracy of information given in the formulary. It may also be true that drug formulary prepared for national use may not be suitable for a specialized tertiary care institution.

Table 2

	FACTORS THAT INFLUENCE IRRATIONAL USE OF MEDICINES	RESULT	ACTIONS PROPOSED	IMPACT
1	Irrational drug formulations	Irrational drug formulations in use	Reduce availability of irrational drug formulations in hospital pharmacy by developing a rational drug list for hospitals	<ul style="list-style-type: none"> <li>•Better quality prescriptions and treatment</li> <li>•Better stock and order management</li> </ul>
2	Market Pressure	Several drugs of similar action are available in pharmacies	Reduce duplication of drugs e.g.use generic (INN) names	Money is saved due to larger orders
3	Misleading information from pharmaceutical sector	Doctors have wrong information	Circulate accurate information in the form of drug formulary/bulletin	Ability to counter the pharmaceutical representatives
4	The inaccurate knowledge base of prescribers	Wrong prescriptions are given to patients	Develop a drug formulary	Patients receive better quality of treatment
5	Inadequate use of available drug formulary	May lead to wrong prescriptions	Involving all stakeholders in developing a drug formulary that is: <ul style="list-style-type: none"> <li>•better designed</li> <li>•easily available</li> <li>•value added</li> </ul>	Better usage of drug formulary and better quality of treatment
6	Doctors' personal opinion	May not be an evidence based medicine practice	Interaction of doctors with experts in the formulary development process	Better usage of drug formulary and better quality of treatment
7	Absence of a monitoring system	Irrational drug use system in hospitals	<ul style="list-style-type: none"> <li>•Have prescription studies</li> <li>•Conduct periodic reassessment</li> <li>•Form a formulary committee</li> </ul>	Sustainable rational drug use systems in hospitals

Taking these factors into consideration, we believe that the preparation of individual hospitals' drug list and drug formulary with a consultative process involving important stakeholders from the institution may help in optimizing the rational use of medicines in non-governmental hospitals. This should also be supplemented by creating a participatory monitoring and evaluation system for rational use of medicines. An interactive process in the development of drug list and drug formulary will lead to better ownership of initiatives among the hospital staff especially among the prescribers and dispensers. A hospital specific drug list can contribute to an improved system for the appropriate selection, procurement, store control, prescription and dispensing of pharmaceuticals. It can reduce irrational drugs available in the pharmacy and drug duplication. Periodic assessment of drug use systems and sharing of this information with the hospital staff, and establishment of a drug committee in the hospitals will work as a monitoring system for rational use of medicines in hospitals.

Rational use of medicines is a philosophy. It can best be sustained when the hospital staffs are convinced of the value of this philosophy in the use of drugs.

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## THE FEAR OF STIGMA

by Guibrina Ouédraogo

**T**amby is an intelligent and enthusiastic young man. He was born in Samba, a village about fifty kilometres from the capital, Ouagadougou. At the age of thirteen, he left home to pursue high school studies. At the age of nineteen, Tamby completes his advanced levels studies and registers at the faculty of sciences and technologies at the university of Ouagadougou.

One day, Tamby falls sick and is sent to the hospital. There he has an HIV test done and the result is positive. In his distress, he confides in one of his friends but within a few days the news of his status is common knowledge in the university. Consequently Tamby is abandoned by his friends. He then joins a HIV support group from where he gains access to treatment and within several weeks, Tamby is feeling better and resumes his activities at the university.

During the holidays, Tamby decides to visit his parents in the village. One day his brother Tanga walks in on him as he is taking his ARV drugs. Tanga is curious and wants to know what the medications are for and

why he has not informed the family that he is unwell. Afraid that his family may react in the way his university colleagues did, Tamby, lies to his brother that the medicines are a secret of those that live in the town. Tanga threatens to disclose the information to the family. To avoid this, Tamby agrees to share his medication with his brother to keep him silent. Within less than a month, Tamby has exhausted his medicine supply which should have lasted him much longer. Rather than face the numerous questions from the doctor on why his medicine supply has been depleted in a shorter duration, Tamby opts to forgo his medication for several days before his next schedule visit to the doctor.

A week barely passes by before Tamby is taken ill. He is rushed to the local health centre but unfortunately he succumbs to complications from HIV infection. It is only then that the family discovers that Tamby was HIV positive and was on medication.

### What can be done to combat this and similar situations?

1. The public needs to be educated on medicines and their effects on the body
2. Medical personnel need to be trained on medicines
3. The public needs to be educated on HIV to fight stigma and discrimination
4. There needs to be counselling on compliance of treatment before any medical prescription is given
5. Street medicines and self-medication need to be discouraged
6. ARV need to be available and accessible from a decentralized location. 🇸🇮

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