

Rational Drug Use

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ABSTRACT

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There is concern regarding the irrational production, prescription and use of drugs in India like, overuse of antibiotics in mild non-bacterial infections; indiscriminate use of antidiarrheals in childhood diarrhea, polypharmacy in elderly population, use of tonics and multivitamins for malnutrition etc. The doctors, pharmacists, nurses and the patients are the primary stakeholders involved in drug use and they some times lack all the needed related information. Physicians frequently have inadequate information on newer drugs/combinations; pharmacists are unfamiliar about the drugs they dispense; nurses do not know about the drugs they administer and the patients are often ignorant about the drugs they consume.

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Ours is a country with significant drug use problems. There is concern regarding the irrational production, prescription and use of drugs in India like, overuse of antibiotics in mild non-bacterial infections; indiscriminate use of antidiarrheals in childhood diarrhea, polypharmacy in elderly population, use of tonics and multivitamins for malnutrition etc. The vast majority of drug costs are borne out of pocket and the ultimate burden of drug use falls entirely on the patient and their caregivers. For most people, it is not just the doctor's prescription that is unintelligible; they do not quite understand how the pills work for them, or even against them.

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The drug information from pharma industry sources are not unbiased and hence noncommercial, independent, unbiased source of drug information is important to minimize irrational drug use. It also forms the basis for the development of drug formularies and standard treatment guidelines essential for rational prescribing. The World Health Organization (WHO) has been advocating promotion of rational drug use (RDU) appropriate and rational use of medicines

is to become the priority for all health professionals, government and consumers in the days to come. The National Human Rights Commission (NHR C) has already recommended to the Government of India to set up computerized drug information centers in large hospitals for the benefit of all concerned.

Drug Information Services

Poor drug regulation and lack of independent unbiased drug information are the main contributing reasons for irrational drug use in India. As about 40% of the health care services budget is consumed by medicines and with a limited resource available, it is essential to promote rational drug use. Drug information centers are established in many hospitals on these directives of the National Human Rights Commission. In a nation where almost any drug can easily be bought over the counter, it is dangerous to allow free sale of drugs. Irrational and unnecessary prescribing is common and antibiotic resistance is widespread.

Need of Information

Knowledge and ideas constantly change. New drugs come in the market and experience with existing drugs expands. Side effects become well known and new indications on existing drugs are developed. Medicines are becoming more sophisticated, more potent, and specific in action. They can reduce and even 'cure' diseases which once had significant morbidity and mortality. Older medicines are being presented in newer and sophisticated delivery forms. If a drug-

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induced illness occurs which could have been known and prevented, the medical profession is held liable. The medical practice is now brought under consumer protection act in India too. Access to clinically relevant, up to date, user specific, independent, objective and unbiased drug information is essential for appropriate drug use. Although access to good drug information does not guarantee appropriate drug use, it is certainly a basic requirement for rational drug use decisions.

Drug Information Service (DIS)

The need of the hour is a dependable source on the rationale use of medical products. This service utilises the expertise of specially trained individuals to provide accurate, unbiased, factual information, primarily in response to patient -oriented drug problems received from various members of the healthcare team. In the past, the number of drugs available was less and thus, the need for drug information was limited. But now, the scenario has come a long way with new modes of therapy and vast number of drug products being available. It is not humanly possible to remember such vast information on therapeutics and the need to retrieve important specific unbiased information. It is also important, to periodically evaluate the mode of functioning and quality of the services provided by DICs and necessary modifications can be made for better functioning.

The drug information center is an essential part of pharmacy practice. The centre is to be well equipped with trained staff and a library consisting of textbooks, National and International journals, computer and Internet facilities along with electronic drug information databases – eg: Iowa Drug Information services (IDIS), MICROMEDEX. It should cater to the needs of all health care professionals working in various departments of the hospital.

Drug information services should be available over telephone, intranet and direct access, Drug information request forms can also be made available on-line as to the current status of drug uses and if not available at hand they may be processed for further answers and issued duly. Such queries are evaluated and answers are provided according to the modified systematic approach. The drug information requests and answers are documented and maintained for later retrieval and analyses as well.

The quality of services provided is to be from the receivers' perspective for ideal awareness, utilization and opinion. Healthcare professionals should also be promoted to give feedback opinions on the service

they have obtained and this should include clinicians and postgraduate trainees of various specialties. The clinical pharmacists should be trained to give competent information on these in a highly professional manner.

In good a functioning DIC a great percentage of the queries are from the internal medicine departments. This could be due to the greater number of students and faculty of pharmacy practice department attending ward rounds and the vast number of drugs used in the department that necessitates the need for unbiased information. Clinicians also utilise the service to a greater extent and most of the queries are for better patient care. As a pharmaco-vigilance unit, it could also ensure that fake drugs were not circulated in the market, and outdated and banned drugs not sold. The centre would also receive information from the public, hospitals and others about the adverse effect of any drug.

Most of the queries require an immediate answer because it is for better patient care and hence the mode of reply is verbal. Other postgraduate students, interns, and nurses also avail this service, but to a lesser extent. The easy accessibility of a clinical pharmacist could be attributed to get prompt services. Number of queries received through intranet is not large, which could be due to lack such a facility to the enquirers. Number of queries received by direct access is facilitated by the ease of location of the drug information center. Drug information queries received were most commonly related to administration and dosage followed by adverse drug reactions.

Tertiary source such as textbooks and secondary source such as electronic databases are the most commonly used resources for answering the queries. The ease of retrieval of information through textbooks explains the wide use of this tertiary source of information, and the ease of use of computer, and availability of recent and relevant information makes electronic data bases like MICROMEDEX an equally important search strategy. IDIS and websites were also used to answer queries but to a lesser extent.

Some useful Internet Web resources:

1. World Health Organization Library site: <http://www.who.int/hlt/virtuallibrary/english/subject.htm>
2. Australian Prescriber: <http://www.australianprescriber.com>
3. British Medical Journal: <http://www.bmj.com/>
4. The Free Medical Journal Site: <http://www.free->

medicaljournals.com

5. MEDLINE: <http://nlm.nih.gov>
6. Cochrane collaboration: www.cochrane.org
7. Biomail: <http://biomail.sourceforge.net/biomail>
8. SATELIFE: Free information services to health professionals: <http://www.healthnet.org>
9. Harrison's Internal Medicine: <http://www.harrisononline.com>

Independent DIC's in India

1. CDMU Documentation Center, Calcutta
2. Maharashtra State Pharmacy Council, Mumbai
3. Andhra Pradesh State Pharmacy Council, Hyderabad
4. Karnataka State Pharmacy Council (KSPC), Bangalore
5. JSS, Ooty
6. Pharma Information Center, Tamilnadu, Chennai

Drug Information Centres

Recognizing the need to provide organized drug information to health care professionals as well as consumers, the WHO India Country Office in collaboration with the Karnataka State Pharmacy Council (KSPC) is supporting the establishment of 5 drug information centres in the country - These centres have been established in Haryana (Sirsa), Chhattisgarh (Raipur), Rajasthan (Jaipur), Assam (Dibrugarh), and Goa (Panaji). These centres seek to provide authentic, unbiased drug information to healthcare professionals; provide tailor-made counseling and drug information to patients / consumers as well as monitor and document adverse drug reactions within the hospital. The process of establishment of these centres included - identification of states, feasibility assessment studies and ascertaining the interest of selected states and training of individuals from each Centre amongst others. The selected centers have started functioning from January 2007 and are registered with International Register of Drug Information Services (IRDIS).

Drug Information Centre at MCH, Trivandrum

A 24-hour Drug Information Centre at the Hospital Information Centre in the Medical College Hospital (MCH) here was launched on - Jul 09, 2008 and shall be operated by the College of Pharmaceutical Science and Drugs Control Department with assistance from the World Bank. Patients, health professionals and

the public can get all drug-related information from the centre directly and through telephone. Hospital attached DIC's with Clinical Pharmacy Services

- Christian Medical College Hospital Vellore, Tamilnadu
- Drug Information Center, (KSPC), Victoria Hospital, Bangalore, Karnataka
- KSPC, Bowring & Lady Curzon Hospital, Bangalore, Karnataka
- Department of Pharmacy Practice, Chidambaram, Tamilnadu
- Department of Pharmacy Practice, National Institute of Pharmaceutical Education and Research (NIPER), Chandigarh
- Jawaharlal Nehru Medical College Hospital (JNMC), Belgaum, Karnataka
- JSS, Mysore, Karnataka
- JSS, Ooty, Tamilnadu
- N.R.S. Medical College & Hospital, Calcutta
- Kempagowda Institute of Medical Sciences (KIMS), Bangalore, Karnataka
- Kasturba Medical College (KM C), Manipal, Karnataka
- Poison Information Center, All India Institute of Medical Sciences (AIIMS), Delhi
- Poisons Information Centre, National Institute of Occupational Health, Ahmedabad
- Dept of Toxicology - Amrita Institute of Medical Sciences & Research, Cochin
- Toxicology & IMCU Unit, Government General Hospital, Chennai
- Sri Ramachandra Hospital, Porur, Chennai
- Sri Ramakrishna Mission Hospital, Coimbatore, TamilNadu
- Trivandrum Medical College, Trivandrum, Kerala

END NOTE

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