

Development and Use of an Independent Drug Information Centre in India

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ABSTRACT

The Karnataka State Pharmacy Council established its Drug Information Centre in August 1997 to disseminate unbiased drug information to healthcare professionals. In March 2000, we undertook activities to promote the services provided by the drug information centre to health professionals and to patients. This has resulted in a dramatic increase in the number of queries coming into the centre from all client groups.

In 2000-01, almost half of the enquiries (47%) came from pharmacists, 30% from doctors and 19% from patients. Queries requiring patient counselling and literature searches were most common, followed by requests for information on product availability and identification, contraindications and safety, and the drug profile. Electronic databases were the most useful drug information resource.

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INTRODUCTION

The provision of accurate and timely drug information to health professionals and patients has been recognised as one mechanism to promote safe and effective drug therapy.¹

The Karnataka State Pharmacy Council established its Drug Information Centre (DIC) in August 1997 to disseminate unbiased drug information to healthcare professionals. The centre has been registered with IRDIS, an international register of drug information services.² One of the pharmacists (PKL) undertook a five-week training program at the Austin & Repatriation Medical Centre in Melbourne.

In India, this is the first independent DIC started by a state pharmacy council to provide unbiased drug information to healthcare professionals. It is an independent centre catering to the needs of all health professionals. The centre receives financial aid from the Karnataka State Pharmacy Council.

The DIC is open six days per week between 9.00 a.m. and 5.30 p.m. and is staffed by two full-time postgraduate pharmacists. Apart from drug information activities the centre is involved in the rational use of drugs program under the World Health Organisation, and training of community and hospital pharmacists under a continuing pharmacy education program.

PROMOTION OF THE DIC

In March 2000 a major promotional campaign commenced. The DIC was promoted to doctors in clinical meetings

conducted by the hospital. A 45-minute talk about drug information in developed countries, the concept of clinical pharmacy and the importance of adverse drug reaction (ADR) monitoring was given. Information about the centre, including contact details, was given to each doctor at the meeting. Twenty-five hospitals were covered in this awareness program. The DIC was promoted to five or six other districts of Karnataka by participation in the Indian Medical Association Continuing Medical Education programs.

Awareness of the DIC among nurses was promoted in a similar way, and awareness among community and hospital pharmacists was created via seminars at the DIC. Posters highlighting the importance of the DIC were distributed throughout Karnataka.

Patients were made aware of the DIC through electronic media, local journals, newspapers and the Karnataka State Pharmacy Council web site and through pharmacists. Patient leaflets were placed in major pharmacy outlets to be distributed to the patients by pharmacists.

USE OF THE DIC

Since it was established in 1997, there has been a steady and dramatic increase in the number of queries coming into the centre from all client groups (Table 1).

The majority of queries (75%) were received from Bangalore. Most of the queries were received and replied to by telephone and e-mail (Table 2). Response times were recorded and 99% of enquiries were answered within 30 minutes.

Query Type

Although the predominant requests were for patient counselling and literature surveys, other categories included product availability and identification, contraindications and safety, and drug profiles. Information on drug indications, interactions, toxicology, and drug use in pregnancy and lactation were also requested by the health professionals (Table 3).

The drug classes about which queries were most commonly made were antibiotics and antifungals (207, 17%), central nervous system drugs (164, 14%), and non-steroidal anti-inflammatory drugs (106, 9%).

References Used

An overall decrease in the use of tertiary sources (text-books) and an increase in use of databases for providing drug information were noted. Computer databases available on CD-ROM like Micromedex, Medline and Internet sources were frequently used. The enquiries pertaining to drug use in pregnancy were answered through the WHO reproductive Cochrane database and other text-books (Table 4).

In order to assess the quality of service provided, a feedback form was sent with the response. About 20% of enquirers replied and, of these, 90% of the respond-

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Table 1. Type of enquirers and number of enquiries received for the period 1997-2001

Year	Number (%) of queries					Total	Annual increase
	Doctors	Nurses	Overseas	Patients	Pharmacists*		
Aug 2000-Jul 2001	352 (30)	54 (4.6)	6 (0.5)	221 (19)	552 (47)	1185	35%
Aug 1999-Jul 2000	119 (14)	0	8 (0.9)	232 (26)	522 (59)	881	1159%
Aug 1998-Jul 1999	16 (23)	0	0	11 (16)	43 (61)	70	37%
Aug 1997-Jul 1998	1 (2.0)	0	0	9 (18)	41 (80)	51	-

* Includes hospital, community, industry, drug information, student, academic pharmacists

Table 2. Demography and mode of query receipt, 2000-2001

Demography	Number (%) of queries
Bangalore	891 (75)
Karnataka	174 (15)
Other areas in India	94 (7.9)
Overseas	26 (2.2)
Mode of receipt	
Telephone	557 (47)
E-mail	253 (21)
In person	244 (21)
Surface mail	127 (11)
Fax	4 (0.3)

Table 3. Request category, 2000-2001*

Request category	Number (%) of queries
Patient counselling	184 (16)
Literature search	146 (12)
Product availability/identification	115 (9.7)
Contraindications/safety	114 (9.6)
Drug profile	113 (9.5)
Efficacy/treatment/choice of drug	96 (8.1)
Indications	56 (4.7)
Pharmacology/pharmacokinetics	54 (4.6)
Poisoning/toxicology	54 (4.6)
Pregnancy/lactation/teratogenicity	48 (4.1)
Interactions	34 (2.9)
Vaccine information	32 (2.7)
Method of administration	29 (2.5)
Adverse drug reactions	24 (2.0)
Dosage	20 (1.7)
Compatibility/stability	15 (1.3)
Banned drugs/drug withdrawn/restricted use	13 (1.1)
Disease profile	7 (0.6)
Others (investigational, orphan drugs, foreign drugs)	43 (3.6)

*One query can have more than one request category

Table 4. References used, 2000-2001*

References used	Number (%) of queries
DrugDex, Martindale and PDR	672 (57)
Medline	362 (31)
Other books and guidelines	183 (15)
Wholesalers/local sources	78 (6.6)
Handbook of injectable drugs	22 (1.9)
Abroad (Indices, E-Drug)	11 (0.9)
Paediatrics references	7 (0.6)

*One query can have more than one reference

ents indicated that the information provided by the centre was satisfactory. About 77% of the responses to clinical queries were used by doctors and pharmacists to improve patient care.

DISCUSSION

The DIC has received a range of queries from patient care to problems faced by the pharmaceutical industry. Although we receive fewer enquiries than most centres in developed countries,^{3,4} the promotional campaign increased awareness of the DIC and markedly increased the number of queries from pharmacists, doctors and patients. Few enquiries were made by nurses. This may be because nurses rely more on their nurse colleagues, doctors and reference books than on pharmacists and information centres for drug information.⁵

With regard to references, the centre showed a trend towards using electronic databases as the main resource. Micromedex remains the most useful drug information system in this independent drug information centre setting. Funding of these databases has been obtained from the pharmacy council. Support for updated reference textbooks and specialised texts on ADRs is still needed to maintain the continuity of the service in cases when the computer system breaks down or when the system is not available.

As a quality assurance measure we sent feedback forms to enquirers. Although those who responded indicated satisfaction with the service, the response rate was quite low. Future plans include the establishment of a more comprehensive quality improvement program with a review committee to analyse the completeness, accuracy and timeliness of responses.^{6,7}

CONCLUSION

The centre provides a useful resource for healthcare professionals and patients, particularly in the Bangalore region. Since the DIC was established there has been a steady increase in the number of enquiries indicating an increase in awareness of the centre for unbiased drug information.

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