# DRUG INFORMATION SERVICES TO DOCTORS OF KARNATAKA, INDIA

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## **ABSTRACT**

The Karnataka State Pharmacy Council established its Drug Information Center in August 1997 to disseminate unbiased drug information to healthcare professionals. In March 2000, the council undertook activities to promote the services provided by the drug information center to health professionals and patients. This has resulted in a many fold increase in the number of queries to the center from client groups such as doctors, pharmacists and patients. This article concentrates on utilization of the center by doctors for drug information. Pediatricians, general physicians, dermatologists, and gynecologists constituted the bulk of the doctors utilizing the center. The center received 1002 queries for the period August 1997 to July 2000. The queries from doctors were only 132 (13.2%). After the awareness programme, the total numbers of queries received for the period August 2000 to January 2002 was 1592 of which 658 (41.3%) were from doctors. The rest of the enquiries were from patients, pharmacists and drug regulatory authorities.

**KEY WORDS** Drug information center pharmacists pharmacy council

# Introduction

The provision of accurate and timely drug information to health care professionals is an important mechanism to promote safe and effective drug therapy. Such service is lacking in India. The term 'drug information' was coined in the early sixties and the first drug information center (DIC) was opened at the University of Kentucky Medical Center<sup>1</sup>.

In India, the Karnataka State Pharmacy Council established its Drug Information Center in August 1997 to disseminate unbiased drug information to healthcare professionals. The center has been registered with IRDIS (International Register of Drug Information Services<sup>2</sup>). One of the pharmacists (PKL) underwent a five-week training program at the Austin & Repatriation Medical Center in Melbourne, Australia.

We present our data for the first five years on total number of persons who approached the center for drug information and conclusions from the analyses. Setup and functioning: In March 2000 a major awareness program on use of drug information services was conducted for the doctors in a clinical meet. About 30 hospitals were covered in this programme March 2000 to January 2002. The 45 minutes talk on drug information and ADR (Adverse Drug Reaction) monitoring services rendered by the center were explained to the doctors and they were encouraged to send queries to the center. Two postgraduate-pharmacists were available to disseminate unbiased drug information. The doctors, pharmacists and patients could visit the center in person to get information. The queries from doctors were recorded using a customized software made for entering these data and compared with previous data.

The center receives financial aid from the Karnataka State Pharmacy Council. Apart from drug information activities it is also 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<sup>3</sup>.

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**Table 1.** Enquirers (Doctors) category for the period of August 2000-January 2002.

Doctors category	Number (%) of queries
Pediatricians	119 (18.1%)
General physicians	109 (16.7%)
Dermatologists	116 (17.6%)
Gynecologists	70 (10.6%)
Pharmacologists	54 (8.2%)
Cardiologists	27 (4.1%)
Anesthetists	17 (2.5%)
Dentists	22 (3.3%)
ENT specialists	19 (2.8%)
Microbiologists	17 (2.6%)
Psychiatrists	18 (2.7%)
Orthopaedecians	21 (3.2%)
Endocrinologists	14 (2.1%)
Pulmonologists	11 (1.7%)
Oncologists	16 (2.4%)
Pathologists	8 (1.2%)

**Table 2.** Request category of enquiries for the period of August 2000 - January 2002.

Request category*	Number (%) of queries
Product availability / identification	145 (22.0%)
Contraindications / safety	102 (15.5%)
Adverse drug reactions	86 (13.0%)
Efficacy/treatment/choice of drug	74 (11.2%)
Pregnancy/lactation/teratogenicity	58 (8.8%)
Drug profile	47 (7.1%)
Indications	38 (5.7%)
Dosage	33 (5.0%)
Poisoning/toxicology	24 (3.6%)
Interactions	19 (2.8%)
Banned drugs/withdrawn drugs/restricted	ed use 21 (3.1%)
Vaccine information	16 (2.4%)
Others (investigational, orphan drugs, drugs from foreign countries)	8 (1.2%)

<sup>\*</sup>One request may have more than one query.

Statistics: The center received 1002 queries for the period from August 1997 to July 2000. The queries from doctors were only 132 (13.2%). Rest of the enquiries were from patients, pharmacists and drug regulatory authorities. After the awareness programme, the total number of queries received for the period of August 2000 to January 2002 was 1592 and 658 (41.3%) were from doctors. Rest 59% of the enquiries were from patients, pharmacists and drug regulatory authorities. This was achieved within 18 months period as compared to first three years record (only 13.2%) from doctors.

The majority of queries (75%) were received from Bangalore. Response time was recorded and about 80% of enquiries were answered within 30 minutes. Most of the queries from doctors fell in to category of product availability / identification, contraindications / safety, adverse drug reactions, choice of drugs, banned drug information and use of drugs during pregnancy.

The DIC has received different type of enquiries from the doctors. The center was utilized more by doctors from private hospitals (50.63%) than government hospitals (32.49%) and general practitioners (GPs) (17%). The pediatricians, general physicians, derma-

tologists and gynecologists were the maximum users among all categories of the doctors. The greater use of center by GP's may be due to non-availability of information from other sources. The most frequently requested information was "product availability". This suggests the need for a common database to indicate the availability of drugs within the country. Most queries were received through e-mail and telephone. The government hospital doctors outside Bangalore sent their queries, through surface mail, which calls for networking of information centers in all the hospitals of Bangalore. Although we received fewer enquiries than most centers in developed countries, the promotional campaign had markedly increased the number of queries from doctors. With regard to references, the center showed a trend towards using electronic databases as the main resource4.

Micromedex remains the most useful drug information resource in this independent drug information center setting. Support from updated reference textbooks and specialized texts on ADRs is still needed to maintain the continuity of the service. The working hours of the center is presently 9.00 A.M. to 5.30 P.M. If funding is genera-ted, service can be extended after office hours.

#### Conclusion

The center remains a useful resource for healthcare professionals, particularly doctors in the Bangalore region. It has branched out and started a hospital attached drug information sub-center at Victoria hospital, Bangalore<sup>5</sup>. Since the DIC was established, there has been a steady increase in the number of enquiries indicating an increase in awareness of the center, as a source of unbiased drug information among doctors. This experience should encourage networking of DIC's in India<sup>6</sup>.

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## **REFERENCES**

- Parker PF. The University of Kentucky Drug Information Center. Am J Hosp Pharm 1965:22:42-7.
- Society of Hospital Pharmacists of Australia. International Register of Drug Information Services 2002 (document online). Available from URL: www.shpa.org.au/druginfo/ irdis.htm.
- 3. Elliott RA. Clinical Pharmacy: An evolving area of pharmacy practice in India. *Aust J Hosp Pharm* 2001;**31**:147-50.
- The Society of Hospital Pharmacists of Australia Committee of Specialty Practice in Drug Information. SHPA standards of practice for drug information services. Aust J Hosp Pharm 1999;29:171-6.
- Lakshmi PK, Rao G, Gore SB. Doctors' preference for the location of a drug information center leads to a hospitalbased clinical pharmacy initiative in India. J Pharm Pract Res 2002;32:240-1.
- Vernon GM, Woods DJ. Development of an international network of drug information centers (indices). AustJ Hosp Pharm 1998:28:115-6.

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