



## Study on the utilization of different mode of access of drug information service in a tertiary care hospital

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### ABSTRACT

**Aim and Objective:** The study was conducted to compare drug information service utilization after a new mode of access to drug information centre was introduced.

**Materials and Methods:** This prospective study was conducted in PVS hospital, Calicut, by comparing the drug information services utilized for two years. In the first-year direct access to drug information centre, telephonic request, and official e-mail was the mode of access. Second year a new access mode of drug information query box was introduced and compared with the first-year data.

**Results:** Out of 194 drug information queries received, 75 queries (38.66%) were from the first year and 119 (61.34%) from the second year. About 51.26% of mode of access utilized by the enquirers in the second year was the drug information query box. Most of the queries were from the nurses (first year: 69.22%, second year: 65.54%). This could be due to more time spend by clinical pharmacist in the wards.

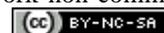
**Conclusion:** Drug information centre was more accessed when query box was introduced, but emergency patient care related queries could not be dealt with this mode.

**Keywords:** Drug information service, utilization, mode of access, query box

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## INTRODUCTION

Drug information service encompasses the activities of specially trained individuals to provide accurate, unbiased, factual information, primarily in response to patient oriented drug problems received from various members of the health care team [1]. In present scenario, the health care professionals are facing problems in procuring current and relevant information on drug and related evidence; due to the vast number of formulations available in the market, the new fixed dose combination of drugs, wide number of biomedical journal and literatures, lack of unbiased information and lack of time due to their colossal schedule [2].

Physicians may not have easy access to reference books, journals or internet based information in a suitable manner. They receive most of the drug related information from pharmaceutical company representatives. Practically, it is not possible to recall all information on drugs. A clinical pharmacist is professionally trained and is competent to provide drug information which is an important component of his/her day to day activities [3]. Clinical pharmacist supervised drug information centre (DIC) provides information mainly to health care professionals and general public with information about all aspects of drugs [4]. DIC provides in-depth, unbiased source of crucial drug information to meet the needs of the practicing physicians, pharmacists, and health care professionals [5]. The drug information centre can be accessed by the health care professionals through various modes such as direct access to the DIC or during ward rounds with the query, telephonic request, and through official e-mail [6]. Along with providing relevant information on drugs it is also the responsibility of the DIC to provide the most convenient and accessible mode to communication to the health care professionals. To maintain the steadiness and reliability in the drug information service provided and for the better functioning of the centre, it is important to evaluate the function and quality of the services provided by the centre at continuous intervals [7]. It is necessary to evaluate the mode of functioning and quality of the services provided by the centre on a periodical basis for necessary modification for the better functioning. The present study was conducted with an objective to compare drug information service utilization after a new mode of access to drug information centre was introduced.

## MATERIALS AND METHODS

**Study details:** This prospective study was conducted in PVS hospital, Calicut, a 350-bedded

tertiary care hospital between June 2014 and May 2016.

**Drug information centre:** The drug information centre is a unit of pharmacy practice department in the hospital, established in the year of 2014. The centre is well equipped with a library comprising of medical and clinical textbooks, range of national and international publications. It is also facilitated with various e-journals and electronic databases such as LEXICOMP. The centre is supervised by faculties of pharmacy practice department.

**Different modes of access available:** The services of the drug information centre were accessed by various modes such as direct access with query to DIC, during ward rounds, telephonic query request, or through official e-mail I.D. All the queries were received, responded in a systematic manner, documented and categorized by using structured documentation forms. Correspondingly, the data were organized in excel datasheet and evaluation.

**Modifications of on-going mode of accesses:** From June 2014 to May 2015 the above-mentioned mode of access was followed. A new access mode of drug information query box was introduced from June 2015 to May 2016. The drug information query box was placed in all the inpatient units. This mode was introduced for taking care of queries in the time when the clinical pharmacists are not available in the inpatient unit. The query forms would be dropped in the box by the enquirer and the clinical pharmacist would process the queries as soon as he/she arrives to the unit.

## RESULTS AND DISCUSSION

A total of 194 drug information queries were received and responded during the study period, where 75 queries (38.66%) were from the first year of the study and 119 (61.34%) queries were from the second year of the study after the query box was introduced.

**Mode of access to drug information service:** The study has found an increase in the number of queries in the second year after the drug information box was introduced as a mode of access to the drug information centre. The study also found that the first-year findings showed direct access to the drug information centre as the leading mode of access for drug information services; whereas the second year finding showed that the drug information query box was the more preferable mode of access. The modes of access utilized by the enquirers are shown in table 1. The second-year findings have shown that (51.26%) of queries were from the drug information box. The

direct access was the primary method used during the first year of the study which showed similarity to the study reported by Jeevangi V M *et al* [4]. Since using of drug information box method were not much seen in other studies and in case if used a comparison of service utilization after implementing this method was not done.

**Purpose of drug information query:** The study found that in both the years the queries related to better patient care to be the major purpose followed by the knowledge updating related queries. The findings are shown in table 2. Most of the studies have shown that updating knowledge was the primary concern for the drug information query.

**Professional designation of the enquirers:** Most of the queries were from the nurses during the study. In the first year 69.22% and second 65.54% of queries were from the nurses. This was followed by the physicians and then the pharmacist. The findings are represented in table 3. The reason why the more queries were from the nurses could be that the clinical pharmacist was mostly present in the wards and the nurses had more time for communication with the clinical pharmacists. The results showed similarities with the study conducted by Walli Mohammed *et al* [6].

**Sources used for drug information query**

**response:** For 181 (93%) of queries tertiary sources such as medical and clinical textbooks were used for answering the queries which was followed by secondary and primary source respectively. The findings are represented in figure 1. The result of more utilisation of tertiary source showed similarity with the studies conducted by Beena *et al* and Walli Mohammed *et al* [3,6].

**CONCLUSION**

The study concluded that drug information centre was well accessed when established which has shown the need for drug information and the role clinical pharmacist in this service. New method introduced by drug information centre by providing the drug information query box has extended the access to the drug information centre. But the study has also observed that it could not be a preferable mode in case of a patient care related emergency queries. Further studies can also be done to find a better preferable access for the physicians and pharmacist who are very much involved with the patient care.

**Table- 1: Comparison of mode of access of drug information service during the study**

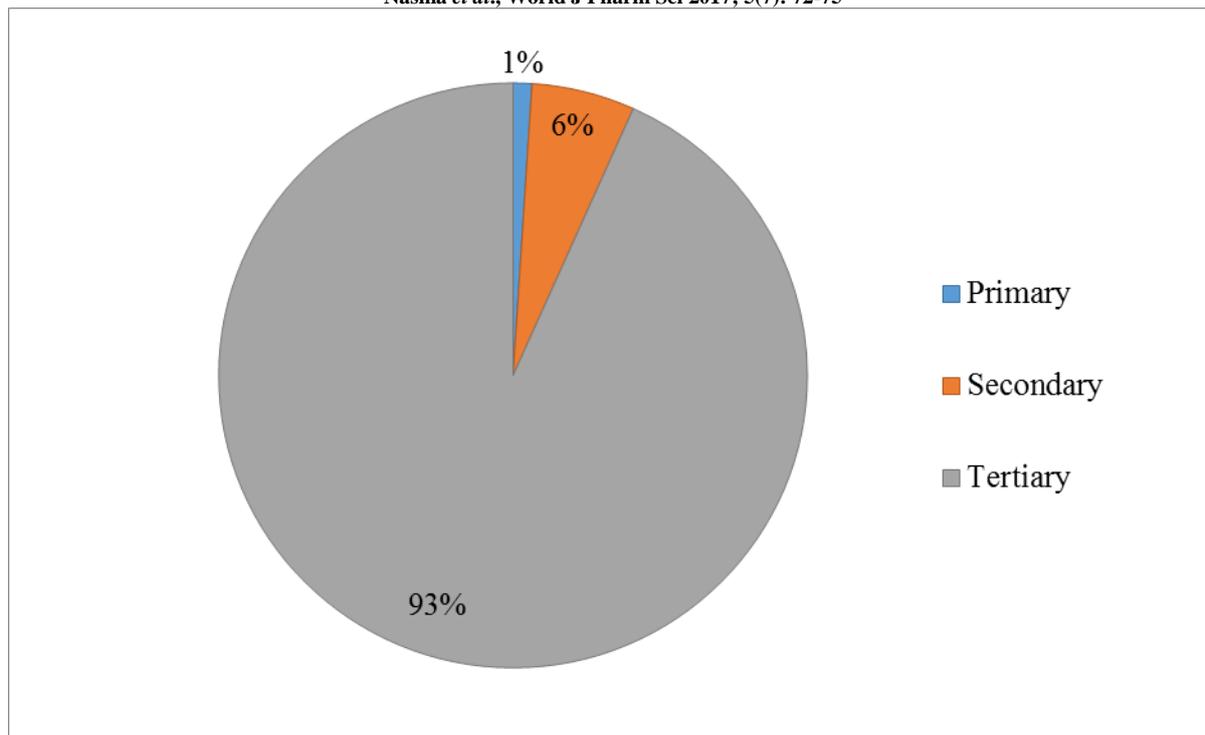
Mode of access	Year	
	2014 - 2015 n (%)	2015 - 2016 n (%)
Direct access to drug information centre	41 (54.66)	34 (28.57)
Telephonic access	21 (28)	13 (10.92)
E mail	13 (17.33)	11 (9.25)
Drug information query box	-	61 (51.26)

**Table- 2: Purpose of drug information query**

Purpose of query	Year	
	2014 - 2015 n (%)	2015 - 2016 n (%)
Better patient care	48 (64)	74 (62.18)
Update the knowledge	27 (36)	45 (37.82)

**Table- 3: Enquirers designation approaching drug information centre**

Enquirers designation	Year	
	2014 - 2015 n (%)	2015 - 2016 n (%)
Physicians	11 (14.66)	17 (14.28)
Pharmacists	8 (10.66)	13 (10.92)
Nurses	52 (69.33)	78 (65.54)
Others (College students and staffs- nursing and pharmacy)	4 (5.33)	11 (9.24)



**Figure-1: Sources used for drug information query response**

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