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## Quality Assurance Of Drug Information Services Provided In A Tertiary Care Hospital In Calicut

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### ABSTRACT

Drug information service provides accurate, relevant and unbiased information on drugs and any aspects related to drugs. The objective of this study was to conduct the quality assurance of drug information service provided. The study was conducted for a period of six months in the drug information centre of a tertiary care hospital in Calicut. Quality assurance was done on the basis of modified systematic approach. A total of 45 drug information queries were received in the drug information center during the study period. Among the queries majority were from pharmacy (77.78%) and nursing station (22.22%). A checklist on basis of modified systematic approach was used to verify the quality. In the queries collected 85% enquirer's details was relevant enough and 15% were incomplete. Drug information response had a professional style in 70% and whereas 30% were not having standard presentation such as alignment or spacing, etc. Among the 20 of the drug information collected for evaluation 90% had relevant information for the query and remaining 10% needed more details. In the source of references given in the response 60% were partial and 40% were incomplete. Based on the time taken for response 55% was timely given and 45% took more time than it really required. The documentation procedure was complete and perfect in all case. Study concluded that although drug information service is actively performed the quality of service has to be upgraded. Standard operating procedure has to be framed and revised as per the lacunas found.

**Keywords:** Quality Assurance, Drug Information Service.

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## INTRODUCTION

Clinical pharmacy may be defined as the services provided by pharmacist to promote rational drug therapy that is safe, appropriate and cost effective.<sup>1</sup> The clinical pharmacy services are patient oriented services developed to promote the rational use of medicines and more specifically to maximize therapeutic effect, minimize risk, minimize cost and respect patient's choice.<sup>2</sup> Pharmacist used to give the information like dosage, use and storage, availability, substitute, adverse drug reactions, research finding about the drug/s to the healthcare professionals, patients and public. Drug information provides authentic, individualized, accurate, relevant and unbiased drug information on drugs and any related aspects of drugs. The major sources of information can be divided into:

1) Primary source:

These are the original information's generated by research scholars and scientist and published either in scientific journals or presented in conferences, seminars;

2) Secondary source:

This information's are collected from all or any one of the primary sources and edited or interpreted by other than original authors.

3) Tertiary source:

The information derived from both primary sources and secondary sources. Quality assurance is a management method that is defined as all those planned and systematic actions needed to provide adequate confidence that a product, service or result will satisfy given requirements for quality and be fit for use.<sup>3</sup> Quality assurance activities in a clinical pharmacy should be comprehensive, spanning the entire supply process from medicine selection to patient use. This study was done assuring the quality of drug information service provided in the study site.

## MATERIALS AND METHOD

The study was prospective review which was conducted for a period of six-month in the Drug Information Centre in PVS Sunrise Hospital, a multi-specialty hospital in Calicut, Kerala. Documentations included drug information request form, drug information documentation form and drug information log book entry. Drug information service followed the modified systematic approach. The various steps in brief were: Attaining initial query from the enquirer; Attain the designation details of enquirer; Background information of the query; Finalize the query; Categorize the query and systematic search for response; Analyze the information response and

disseminate the information; and Necessary documentation and follow-up. Descriptive statistics was done for the final result conclusion.

## RESULTS AND DISCUSSION

A total of 45 drug information queries were received in the drug information center during the study period. Among the 45 queries received majority were received from pharmacy (77.78%) and from nurses (22.22%). Updating of knowledge was the primary concern for all the queries. Out of these 45 queries twenty queries were chosen as two query per week basis for evaluation. A checklist on basis of modified systematic approach was used to verify the quality service. The checklist contents included enquirer's details, query, professional response style, drug information, and source of references, time of response, preceptor review, and documentation. Out of these 85% enquirer's details were relevant and 15% were incomplete. All the 45 initial queries were in phrases in the drug information query request form. Of the given response style 70% was professional and 30% were not having standard presentation such as alignment or spacing, etc. Among the 20 drug information 90% had relevant information and remaining 10% needed more details about the drug. On basis of source of reference of the response given 60% sources of reference were partial and 40% sources of the reference were incomplete. From the 20 queries 55% was timely given and 45% took more time than it really needed. The preceptor review was done for all the query response given. The documentation procedure was completely done by the drug information center without any fail. Table 1 represents the quality assurance findings of drug information service on the basis of above checklist.

**Table 1: Quality assurance for drug information service**

Checklist		Number	Percentage
Enquirer Details	Relevant	17	85%
	Incomplete	3	15%
Query	Understandable	20	100%
	Incomplete	0	0
Query response	Professional	14	70%
	Not up to the standard	6	30%
Drug information	Relevant	18	90%
	Incomplete	2	10%
Source of reference	Complete	0	0
	Partial	12	60%
	Incomplete	8	40%
Time of response	Timely	11	55%
	Time taken more than required	9	45%
Preceptor review	Reviewed	20	100%
	Not reviewed	0	0

Documentation	Well documented	20	100%
	Partial	0	0

Though the main purpose of drug information center is to improve the patient care by optimizing the drug therapy as per the queries from the healthcare, the queries received in the center were to update the knowledge. The pharmacist and nurses were the major utilizers of the drug information services. Lack of required background information to process drug information, lack of mentioning query in full format, incomplete documentation and underuse of authenticated information resources were some of the findings during evaluation of drug information services. Most of the queries required immediate answer hence the mode of reply was mostly verbal which was the similar to results of the study conducted by Vijaykumar T. M. et al., 2011<sup>10</sup>. The purpose of query was also similar to the findings of the latter. As per the results analyzed for the quality assurance of drug information service the standard operating procedure requires modification giving more professional input and standards such as: Filling drug information request form with relevant input for processing without any doubts; Securing the demographics of requester and contact details; Assess the perception about the purpose of request; Providing the response in standard professional style; Collect the relevant information from various resources like journals, textbook and other relevant sources; and Reference to be written in a standard format like Vancouver's style that would be a detailed version and help in linking for the enquirers.

## CONCLUSION

Desired quality in healthcare can be achieved by introducing quality indicators which can be benchmark the process of health care delivery and by periodic assessment and evaluation of health care services in order to identify the areas of improvement. Although drug information service was actively performed the quality of service has to be upgraded. The modified systematic approach for drug information query response can only provide the basic level of service. The standard operating procedure used for drug information service has to be framed and revised as per the lacunas found in this study. The theoretical aspects or standard operating procedures provided to the clinical pharmacist are not sufficient in the field work. Therefore providing with appropriate standard operating procedure which is more related to practical method is needed.

## ETHICS STATEMENT

The study was approved for conduct by the registered Institutional Ethics Committee of the study site.

## REFERENCES

1. Parthasarathi G, Karin NH, Milap CN. A textbook of clinical pharmacy practice. 2<sup>nd</sup> edition, Universities Press; 2012: 10.
2. Chisholm–Burns M. A., Kim Lee J., Spivey C. A., Slack M., Herrier R. N., Hall Lipsy et. al. US pharmacist's effect as team members on Patient care: Systematic review and Meta-analyses. *Med. Care* 2010; 48(10): 923-933.
3. Tipnis HP, Amrita B. *Clinical Pharmacy*. 1<sup>st</sup> edition, Career Publications; 2003: 3-4.
4. Narayanan N, Balasubramanian S. *Hospital and Clinical Pharmacy*. 2<sup>nd</sup> ed., PharmaMed Press; 2013: 246-7.
5. Storey A, Briggs R, Jones H, Russell R. In J. Bartram & G. Rees, eds., Chapter 4: Quality Assurance. World Health Organization, Geneva. 2000
6. Sridevi K, Subbaiah MV, Surekha M, Harini J, Chandini S, Basher S et. al. Clinical pharmacist role in drug information services and medication errors management at tertiary care hospital. *IOSR Journal of Dental and Medical Sciences* 2017; 16(6): 16-23.
7. Himanshu P, Shobha C, Parthasarathi G, Ramesh M. Quality assurance of drug information service and drug therapy review provided by clinical pharmacists in an Indian teaching hospital. *Indian Journal of Pharmacy Practice* 2015; 8(3):117-25
8. Marie CC. Ng, Monet ML. Retrospective quality assessment of hospital-based drug information service. *International Journal of Pharmacy Teaching and Practices* 2013; 4(3): 724-30.
9. Zachariah S, Soumya C, Thomas D, Reddy YP. Assessment of adherence to drug information service protocol in a rural Indian hospital. *Asian Journal of Biomedical and Pharmaceutical Sciences* 2013; 3(25): 27-31.
10. Vijayakumar TM, Poovi G., Dhanaraju MD. Opinion on drug information services provided in a multi-specialty teaching hospital. *Archives of Pharmacy Practice* 2011; 2(2): 57-9.
11. Patil AN, Padhy BM, Prasanthi SK, Rohilla R. Drug information center in India: Overview, challenges, and future prospects. *International Journal of Pharmaceutical Investigation* 2018; 8:1-6.
12. Ahirwar CS, Mishra AK, Pathak AK. A need to be fulfilled: Drug information services. *IOSR Journal of Pharmacy* 2017; 7(6): 15-9.
13. Thomas D, Seeba Z. Drug Informatics to promote Pharmacy Profession in India. *International Journal of Medical Informatics* 2010; 5(1):1-3.

14. Karla MA, Pakhale SP, Khatak B. Drug information centers– Need of the hour. *International Pharmaceutica Scientia*. 2011;1(1):69-76.
15. Meena S. Drug information services in the NGO sector. *Indian Journal of Pharmacy* 2001; 33: 44-5
16. Lakshmi PK, Gundu Rao DA, Gore SB. Drug information services to Doctors of Karnataka, India. *Indian Journal of Pharmacology* 2003; 35: 245-47.

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