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## Pharmacovigilance awareness among interns in a tertiary care teaching hospital

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### ABSTRACT

Adverse drug reaction was one of the well-known causes of morbidity and mortality in both hospital and community settings and it is responsible for about five to twenty percentage of hospital admissions. The accomplishment of pharmacovigilance is alarmed with the dynamic involvement of medical professionals. To this purpose we studied the Pharmacovigilance awareness among the Interns (House-surgeons) posted in a tertiary care teaching hospital. This cross sectional study was conducted among interns (House-surgeons) who actively participate in the treatment and care of patients at tertiary care teaching hospital for the period of three months during January 2009 to March 2009. Ten points questionnaire was designed and validated to know the awareness ADR reporting and Pharmacovigilance. A total of 100 Interns participated in the study group. The participants were between 22-28 years and the experience of these interns was 0-12 months. Overall >90% of the participants were not aware of any of these questions. The percentage of correct answer for question 5 vs. 10 was 5-44 vs.90.33 respectively. Our study strongly recommends a massive need to create awareness among the Interns to improve the reporting of ADR and awareness about Pharmacovigilance. The training sessions must clarify the roles of the various healthcare professionals in Pharmacovigilance.

**Keywords:** Adverse drug reaction (ADR), Pharmacovigilance, Interns (House-surgeons)

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### Introduction

WHO defined Adverse Drug Reaction is any noxious, unintended and undesired effect of the drug which occurs at doses used in humans for the prophylaxis, diagnosis or therapy of a disease or the modification of physiological state as per[1]. The ADR was one of the familiar causes of morbidity and mortality in both hospital and community settings and it is responsible for about five to twenty percentage of hospital admissions[2-3]. It is as well an financial burden on health care system due to prolonging the hospital stay and augment the expenditure of the cure [4]. Majority of Interns are not conscious of significance of monitoring and reporting of ADR[5]. Pharmacovigilance is a important branch of pharmacology defined as science and activities related to detection, assessment, understanding and prevention of adverse drug reactions

important branch of pharmacology defined as science and activities related to detection, assessment, understanding and prevention of adverse drug reactions or any drug related problem. The accomplishment of Pharmacovigilance is mainly concerned with the active involvement of health care professionals. To this purpose we studied the Pharmacovigilance awareness among the Interns (House-surgeons) posted in a tertiary care teaching hospital.

### Methods

This cross sectional study was conducted among interns (House-surgeons) who actively participate in the treatment and care of patients at Katuri Medical College Hospital, Chinakondrupadu, Guntur (A.P) for the period of 3 months between January-March 2009. PG students, senior level doctors and nursing staff were excluded from the study. Ethical committee has approved the study. A Questionnaire of ten points was designed and validated to know the knowledge and awareness about ADR and Pharmacovigilance. The interns were requested to fill the questionnaire and to return within 2 days.

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**Table 1: Difference between adverse drug reaction and adverse event**

1.	Difference between Adverse drug reaction and Adverse event	(Right/Wrong)
2.	What do mean by Serious Adverse Reaction (SAE)	(Right/Wrong)
3.	Whom to report ADR – Locally	(Right/Wrong)
4.	Definition of Pharmacovigilance	(Right/Wrong)
5.	Why ADR has to be reported to Pharmacovigilance Center	(Right/Wrong)
6.	Pharmacovigilance reporting is Compulsory	(Right/Wrong)
7.	DCGI– expand the abbreviation	(Right/Wrong)
8.	CDSCO – expand the abbreviation	(Right/Wrong)
9.	Post Marketing Surveillance - means	(Right/Wrong)
10.	Name one Pharmacovigilance centre in south India	(Right/Wrong)

## Results

A total of 100 Interns participated in the study group. The age was between 22-28 years. The experience of interns was 0-12 months. The participants who answered correctly >5 questions were about to finish their Internship within 3 months. Overall >90% of the participants were not aware of any of these questions. The percentage of correct answer for question 5 vs. 10 was 5-44 vs.90.33 respectively.

## Discussion

This study showed reserved awareness of pharmacovigilance among the junior level doctors in a tertiary care teaching hospital that >90% of interns did not know where and how the ADRs had to be reported. So, it is essential to conduct awareness programs to improve the ADR reporting is mandatory. In our evaluation a prevalence of participants felt that the ADR reporting should made compulsory, which again corresponding with the results obtained by Qing et al and Bateman DN *et al* study.(6-7) The percentage of correct answer for question 6 vs. 10 was 5-33 vs.89.33 respectively, suggests that the participants were new to the terminology Pharmacovigilance. The various factors that discourage the medical doctors from a spontaneous reporting are due to lack of knowledge

about the reporting system was well discussed by Patil *et al* [8]. Our study was also gives similar study done by Madhavulu *et al* among clinicians in a tertiary care hospital[9].

## Conclusion

Our study strongly recommends a massive need to create awareness among the Interns to improve the reporting of ADR and awareness about Pharmacovigilance. The training sessions must clarify the roles of the various healthcare professionals in PV. The Pharmacovigilance must be made an essential part of the medical education right from 2<sup>nd</sup> M.B.B.S, in order to better patient care.

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**Source of Support: Nil**

**Conflict of Interest: None**