

A study to Evaluate Knowledge of Handling Medico-Legal Cases among Interns in a Teaching Institution

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Abstract

Background: The rising trend of medico-legal cases reporting to our hospital emphasizes the need to have physicians who are trained in Forensic Medicine to equip them to deal with such situations. In an era of escalating crime, litigation and eroding doctor-patient relationship, ignorance of the law could lead to pitfalls in practice. Hence, the present study was conducted to evaluate the knowledge of our interns on handling routine medico-legal cases in the wards and Casualty. **Material and Methods:** A total of 109 interns posted in various departments of the institute during the period from May 2016 to April 2018 participated in this research. Data was collected in the form of a self-administered questionnaire comprising close-ended multiple choice questions related to the topic of the study. It was then analyzed using SPSS version 11 by descriptive analysis. **Results:** The majority of participants were able to identify a medico-legal case and classify an injury as simple or grievous. However, there was uncertainty regarding giving opinion in a case of drunkenness and custody of forensic samples in poisoning. **Conclusion:** Overall, interns had good knowledge of handling medico-legal cases. The knowledge gaps identified through this study on particular topics have to be revised at regular intervals during internship and residency.

Keywords: Medico-Legal; Forensic Medicine; Interns; Wards; Casualty.

Introduction

A physician has a dual responsibility, the first being a duty of care towards the patient and secondly, a duty to serve the interest of justice [1]. These two roles have to be efficiently combined for a satisfying outcome. In the present context, a doctor, whether in private or government service, not only has to manage sick patients but also face medico-legal challenges in routine practice. The subject of Forensic Medicine which is taught to undergraduate medical students in their second year is, perhaps, the only training they have on how to handle cases of a medico-legal nature. When

young medical graduates go on to become interns and then doctors, they come across actual case scenarios and are at a loss as they would have forgotten what they learnt earlier. The rising crime rate and traffic congestion have led to an overall increase in the number of violent assault and vehicular accident cases reporting to the Casualty departments of hospitals in our state. Therefore, the need of the hour is to have forensically equipped doctors who are well-versed with the legal and ethical aspects of their practice [2]. They must be confident about medical examination and report writing, standard operating procedures to be followed and appearing as expert witnesses in courts of law.

The present study is an effort on our part to find out how much interns in our hospital know about handling regular medico-legal cases that they face during their clinical postings. It also provides a means to reflect upon our teaching methodology in order to devise a way of making the curriculum more practical and applicable to real life situations in the wards and Casualty. Further, we plan to take remedial measures in undergraduate and internship training if working knowledge is found to be inadequate.

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Material and Methods

The current research is a cross-sectional study which was conducted on medical interns with a total sample size of 109 (one hundred and nine) participants. All the interns who were posted in various departments of the institute during the period from May 2016 to April 2018 and were willing to participate were included in the study. Those who did not give written consent or failed to show up were excluded from the same. Data collection was done in the form of a structured self-administered questionnaire comprising 10 (ten) closed-ended multiple choice questions related to handling of medico-legal cases in the wards and Casualty. The nature and purpose of the study was explained to them and written consent of all respondents was documented. The questionnaire was validated, pre tested and modified accordingly.

The answer scripts were evaluated wherein each correct response was awarded one mark. There was no negative marking for wrong answers. The total marks secured were calculated out of ten and the percentages worked out for all the questionnaires retrieved. Knowledge was graded on the basis of scores obtained by individual participants as follows:-

GOOD - >70% i.e. total score more than 7 out of 10

FAIR - 50-70% i.e. total score 5 to 7 out of 10

POOR - <50% i.e. total score less than 5 out of 10

Data Analysis

The data collected was entered in SPSS 11:00 and subjected to descriptive analysis.

Ethical Considerations

Approval for the project was received from the Institutional Ethics Committee (IEC) on 21st April 2016.

Results

A total of 109 (one hundred and nine) questionnaires were retrieved from participants in the present study out of which 92.7% were complete in all respects and 7.3% were incomplete in that one or two questions had been left unanswered. The results are tabulated in Tables 1 and 2.

A majority of interns (98.2%) were able to correctly identify a medico-legal case out of the list provided to them while 89% knew that medical duties take precedence over legal obligations in any given situation. Most of the respondents (95.4%) were able to classify injuries medico-legally as simple or grievous. A good number (94.5%) of participants could give an appropriate opinion after being presented with a case scenario on the examination of a rape victim. On the other hand, 82.6% were sure about who should record the Dying Declaration in an ideal situation. Less than half (49.5%) of them knew the correct procedure in the event of death in medico-legal cases in the wards. A handful of interns (9.2%) were aware of what is to be done to the samples collected in Casualty in suspected poisoning. In the issue of consent in emergencies, 86.2% had a good idea of how to proceed in such circumstances. Few participants (34.9%) knew about the retention of medical records as per Directorate General of Health Services (DGHS) guidelines followed in all Central Government hospitals. As regards the

Table 1: Knowledge of handling medico-legal cases (n=109)

Sr.No.	Questions	No. of responses	Correct responses No (%)
1.	Identifying a medico-legal case	109	107 (98.2)
2.	Priority of medical duties over legal obligations	107	97 (89)
3.	Medico-legal classification of an injury as simple or grievous	109	104 (95.4)
4.	Opinion after examination of rape victim	108	103 (94.5)
5.	Recording a Dying Declaration	109	90 (82.6)
6.	Procedure in the event of death in a medico-legal case	107	54 (49.5)
7.	Procedure to be followed in poisoning cases	109	10 (9.2)
8.	Consent in emergencies	109	94 (86.2)
9.	Retention of medical records as per DGHS guidelines	104	38 (34.9)
10.	Examination and report on drunkenness	104	48 (44)

examination and report on drunkenness, only 44% could correctly state that the opinion in such cases is based on clinical examination findings and not on laboratory test results.

Grading of knowledge

It was observed that 65 (59.6%) interns had good knowledge, 40 (36.7%) had fair knowledge and 4 (3.7%) of them were found to have poor knowledge on handling medico legal cases (Figure 1).

Discussion

The internship period is crucial to acquire practical hands-on experience of what medical students have learnt during their five years of training. It marks an important transition from the status of a student to that of a qualified professional.

Most of the concepts learnt are applied in actual case scenarios in the wards and Casualty. A good knowledge of how to handle medico-legal problems at this stage would thus enable a future doctor to face such situations confidently and without fear. Medical teachers have a vital role to play in transmitting this knowledge and helping students develop the right skills and attitudes to become good practitioners.

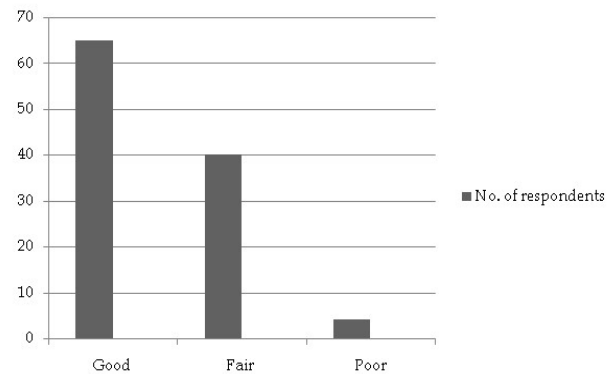


Fig. 1: Grading of knowledge among respondents

Table 2: Analysis of questions with <50% correct responses (n=109)

	Percentage of responses
Q 6. A 20 year old man sustained head injury in a road traffic accident. He was admitted in the Neurosurgery Ward but expired two days later. As the attending doctor, what is your next course of action?	
a) Issue a Death Certificate	17.4
b) Hand over dead body to relatives	0.9
c) Give an intimation to police	49.5
d) Make arrangements for a postmortem examination	30.3
No answer	1.9
Q 7. A patient is brought to Casualty with signs and symptoms of organophosphorus poisoning. After performing gastric lavage, what will you do with the sample collected?	
a) Send it to the Forensic department for analysis	88.1
b) Hand it over to police with proper receipts	9.2
c) Discard the sample	0.9
d) Store it in the refrigerator	1.8
Q 9. As per DGHS guidelines, records of medico-legal cases should be retained for a minimum period of	
a) 3 years	25.7
b) 5 years	17.4
c) 10 years	34.9
d) Indefinitely	17.4
No answer	4.6
Q 10. Opinion in a case of drunkenness is based on	
a) Alleged history of drinking	0.9
b) Clinical examination findings	44
c) Blood alcohol level	24.8
d) Breathalyzer test results	25.7
No answer	4.6

Doctors, whether in government service or private practice and irrespective of their geographical location, will inevitably come across cases of a medico-legal nature while performing their day-to-day duties. Hence, the ability to identify such cases assumes importance. It is a matter of common sense to realize that immediate lifesaving measures are prioritized over legal formalities at any point of time. The latter should, however, be completed in due course of time. A Supreme Court judgment of 1989 rules that when a patient is in a miserable state hanging between life and death, it is a duty coupled with human instinct on the part of the medical practitioner to do all that is within power to save life, and this requires neither decision nor code of ethics nor rule of law [3]. Interns are expected to be able to differentiate between simple and grievous injuries. This entails adequate training on report writing during the undergraduate years and a clear understanding of Section 320 of the Indian Penal Code (IPC) [4]. In the current study, 82.6% of respondents knew that the ideal person authorized to record the Dying Declaration is a Magistrate in the presence of a doctor. This is consistent with the findings of an earlier study done by Geetha O on doctors in Kerala in 2009 where 72% responded that it should ideally be done by a Magistrate and 60% replied that it can also be done by a doctor in the presence of witnesses [5]. Our research reveals that only 9.2% of participants were sure about the *chain of custody* of a gastric lavage sample collected in a case of poisoning which differs from a study done by Mardikar PA et al. in Nagpur in 2015 where 95.7% of interns knew about preservation of gastric lavage in poisoning cases [6]. In addition, we found that knowledge regarding retention of medico-legal records was lacking in the majority of respondents which is similar to the findings of Rai JJ et al conducted in Vadodara in 2012 [7].

Our observations clearly indicate that some remedial measures are necessary to elucidate certain 'grey areas' with less than 50% correct responses (Table 2). As medical teachers, we could revise our teaching methodology, lecture style, lecture content and evaluation for a more practical approach to medico-legal education [8]. The inclusion of problem based learning exercises and case scenarios could facilitate better learning among students. A refresher/orientation class at the start of internship may be introduced to enable new interns to recollect what they have already learnt and apply it while doing the rounds in the wards and Casualty. Topics may be selected and taken up for discussion with concerned departments at

varying intervals during internship to strengthen weak areas and address specific issues, for example 'Procedure to be followed in the event of death in a medico-legal case', 'Collection and Preservation of samples in poisoning cases', 'Retention of records in medico-legal cases' and 'Examination and reporting in a case of drunkenness'. A 15 days posting in the Department of Forensic Medicine and Toxicology during internship may be made mandatory to enable proper handling of medico-legal cases [9]. Problem-oriented on-the-job training and regular updates on new developments in the field could possibly improve knowledge and perception of these issues [10]. Further, regular Continuing Medical Education (CME) programmes on medical law and ethics could be held from time to time to ensure that interns and doctors are confident about dealing with such situations on a day-to-day basis.

Conclusion

The majority of interns had good knowledge about handling medico-legal cases. However, there is a need to clarify confusion around certain relevant topics as they have a bearing on the future practice of a budding doctor. In this regard, medico-legal education has to be reinforced with changes in undergraduate teaching methodology. Inclusion of more problem based and case based learning for students can help them understand better on how to handle such cases. Additional refresher's courses during internship and residency are also very important for reinforcing their knowledge. Only then will we be able to produce competent graduates who are equipped with the necessary knowledge of the legal and ethical aspects of every case they handle.

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