

Research Article

Knowledge, Attitude and Practice Patterns Regarding Medico-Legal Affairs among Indian Ophthalmologists: A Cross-Sectional Survey

Dr. Ashish Chaudhary^{1*}, Dr. Rakesh Porwal², Prof. (Major) Dr. Ram Swaroop Harsolia³, Dr. Sonu Chaudhary⁴

¹PG 3rd year, Department of Ophthalmology, JLN medical College, Ajmer.

²Senior Professor and HOD, Department of Ophthalmology, JLN medical College, Ajmer.

³Professor, Department of Ophthalmology, JLN medical College, Ajmer.

⁴Junior Resident 3rd year, Department of Ophthalmology, JLN medical College, Ajmer.

Corresponding Author: Dr. Ashish Chaudhary

Junior Resident 3rd year, Department of Ophthalmology, JLN medical College, Ajmer.

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ABSTRACT

Background: To assess the knowledge, attitude, and practice (KAP) regarding medico-legal affairs among Indian ophthalmologists and identify areas requiring improvement to strengthen medico-legal preparedness in routine ophthalmic practice.

Methods: A prospective cross-sectional questionnaire-based survey was conducted among 160 ophthalmologists practicing in government and private healthcare institutions in Rajasthan and neighboring regions. A structured pre-validated questionnaire evaluated participants' demographic characteristics and their knowledge, attitude, and practice regarding medico-legal issues, including informed consent, documentation, medical negligence, emergency care, medico-legal case (MLC) management, police notification, record keeping, professional liability, and communication following complications. Data were analyzed using SPSS version 25.0. Categorical variables were summarized as frequencies and percentages.

Results: Among the 160 participants, junior residents constituted the largest group (43.8%), followed by consultants (37.5%). Most respondents were practicing in government hospitals (73.1%). Overall, participants demonstrated satisfactory medico-legal awareness. A majority correctly identified the need for police notification in grievous ocular injuries (82.5%), mandatory written informed consent before surgery (83.1%), maintenance of medico-legal records (81.9%), and preservation of OPD records (95.6%). Nearly all respondents supported transparent disclosure and communication with patients following complications (98.1%). However, important knowledge gaps were identified regarding eye donation in medico-legal cases, statutory limitation periods, liability associated with equipment failure, and the scope of legal protection provided by informed consent.

Conclusion: Indian ophthalmologists demonstrated generally satisfactory knowledge, positive attitudes, and appropriate medico-legal practices. Nevertheless, deficiencies in selected legal domains indicate the need for structured medico-legal education, regular continuing medical education programs, standardized institutional protocols, and enhanced legal awareness to reduce medico-legal risk and improve patient safety.

Keywords: Medico-Legal Affairs, Ophthalmology, Knowledge, Attitude, Practice, Medical Negligence.

INTRODUCTION

Medical practice has evolved considerably over the past few decades, with increasing emphasis on patient autonomy, ethical accountability, evidence-based care, and legal compliance. Alongside advances in diagnostic and therapeutic techniques, healthcare professionals are expected to maintain high standards of documentation, informed consent, communication, and professional conduct. Consequently, medico-legal awareness has become an integral component of modern clinical practice, enabling clinicians to deliver

safe patient care while minimizing legal vulnerability (1,2).

Ophthalmology is a highly specialized discipline involving both medical and surgical interventions that directly influence visual function and quality of life. Procedures such as cataract surgery, refractive surgery, glaucoma management, vitreoretinal surgery, and corneal transplantation generally achieve excellent outcomes; however, even well-recognized complications may result in patient dissatisfaction and subsequent medico-legal disputes. In many instances, litigation arises

not because of technical negligence but because of inadequate counseling, incomplete documentation, poor communication, or unrealistic patient expectations (3–5).

The medico-legal landscape in India has undergone substantial transformation following increasing public awareness of patient rights, expansion of consumer protection legislation, wider access to legal remedies, and rapid dissemination of health-related information through digital platforms. Healthcare services are now subjected to greater public scrutiny than ever before, and ophthalmologists are increasingly required to justify their clinical decisions according to accepted legal and ethical standards. Allegations of negligence may result in financial liability, professional stress, reputational damage, and defensive medical practice, irrespective of whether negligence is ultimately established (4,5).

Among all preventive medico-legal measures, informed consent and meticulous documentation remain the cornerstones of legal protection. Consent should be regarded as a continuous process of communication rather than merely obtaining a patient's signature. Comprehensive counseling regarding the nature of the disease, available treatment options, expected benefits, possible complications, alternatives, and prognosis enables patients to participate in shared decision-making while simultaneously strengthening the doctor–patient relationship. Likewise, accurate medical records, operative notes, referral documentation, and follow-up records frequently constitute the most important evidence during medico-legal proceedings (5–7).

Apart from legal knowledge, clinicians' attitudes toward medico-legal responsibilities substantially influence their daily practice. Ophthalmologists who recognize the importance of ethical conduct, transparent communication, patient-centered care, and standardized clinical protocols are generally better equipped to manage complications and reduce the likelihood of litigation. Conversely, inadequate legal awareness may contribute to inappropriate documentation, delayed reporting of medico-legal cases, improper consent practices, and defensive medicine, all of which adversely affect both patient care and professional confidence (2,5,8).

The Knowledge, Attitude, and Practice (KAP) framework provides a comprehensive approach for evaluating clinicians' preparedness to manage medico-legal responsibilities.

Knowledge reflects awareness of legal obligations, attitude represents perceptions toward ethical and legal accountability, and practice evaluates the actual implementation of medico-legal principles during routine clinical care. Identifying deficiencies across these domains is essential for developing targeted educational interventions, strengthening institutional policies, and improving professional competency.

Although several studies have assessed medico-legal awareness among healthcare professionals, relatively few have specifically evaluated ophthalmologists in India. Existing evidence suggests that important deficiencies remain regarding professional indemnity, legal documentation, consent procedures, statutory reporting obligations, and management of medico-legal cases. Considering the unique characteristics of ophthalmic practice—including high surgical volume, elective procedures, outcome-dependent patient satisfaction, and increasing consumer expectations—a specialty-specific evaluation is warranted (5,8).

MATERIALS AND METHODS

Study Design and Setting

A prospective cross-sectional questionnaire-based study was conducted among practicing ophthalmologists working in government and private healthcare institutions in Rajasthan and neighboring regions of India. The study aimed to evaluate the knowledge, attitude, and practice (KAP) regarding medico-legal affairs in routine ophthalmic practice.

Study Population

The study included qualified ophthalmologists actively involved in clinical or surgical ophthalmic practice. Participants represented different levels of professional experience, including junior residents, senior residents, fellows, medical officers, and consultants practicing in government hospitals, private hospitals, private clinics, and trust hospitals.

Sample Size

A total of 160 ophthalmologists voluntarily participated in the study and completed the survey questionnaire. Only fully completed questionnaires were included in the final analysis.

Inclusion Criteria

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- Ophthalmologists possessing an M.S. (Ophthalmology) or an equivalent postgraduate qualification.
- Ophthalmologists actively involved in clinical practice.
- Participants who provided informed consent for participation.

Exclusion Criteria

- Medical practitioners without a postgraduate qualification in ophthalmology.
- Incomplete questionnaire responses.
- Participants unwilling to participate.

Study Instrument

Data were collected using a structured, pre-validated self-administered questionnaire specifically designed to assess medico-legal awareness among ophthalmologists. The questionnaire comprised two sections.

The first section collected demographic and professional information, including designation and current practice setting.

The second section assessed the participants' knowledge, attitude, and practice regarding important medico-legal aspects of ophthalmic practice.

The questionnaire included items related to:

- informed consent
- medico-legal documentation
- maintenance of medical records
- reporting of medico-legal cases
- police intimation in ocular injuries
- emergency management
- negligence and professional liability

- communication following complications
- compensation claims
- professional legal responsibilities
- validity of electronic medical records
- maintenance of medico-legal registers
- Statutory legal obligations.

All questionnaire items were recorded as predefined categorical responses.

Outcome Measures

The primary outcome was the overall level of knowledge, attitude, and practice regarding medico-legal affairs among Indian ophthalmologists.

Secondary outcome measures included awareness regarding:

- informed consent
- medical negligence
- medico-legal documentation
- legal reporting obligations
- maintenance of medico-legal records
- emergency care responsibilities
- communication following complications
- Professional liability.

Statistical Analysis

Data were entered into Microsoft Excel and analyzed using IBM SPSS Statistics version 25.0 (IBM Corp., Armonk, NY, USA). Categorical variables were expressed as frequencies and percentages, and continuous variables as mean $\pm$ standard deviation (SD). Associations were analyzed using the Chi-square test or Fisher's exact test, as appropriate. A two-sided *P* value <0.05 was considered statistically significant.

RESULTS

Table 1. Demographic and Professional Characteristics of Participants

Variable	N (%)
Total participants	160
Junior Resident	70 (43.8)
Consultant	60 (37.5)
Senior Resident	18 (11.3)
Medical Officer	10 (6.3)
Fellow	2 (1.3)
Government Hospital	117 (73.1)
Private Hospital	34 (21.3)
Others	9 (5.6)

Table 2. Knowledge Regarding Medico-Legal Affairs

Variable	Correct Response N (%)
Mandatory preoperative precautions	123 (76.9)
Police information in grievous eye injury	132 (82.5)
Reply to legal notice	143 (89.4)
IOL dislocation is not negligence	154 (96.2)

YAG-related RD is not negligence	136 (85.0)
Complication despite proper documentation is not negligence	150 (93.7)
Written surgical consent is necessary	133 (83.1)
Consent alone does not provide complete legal protection	129 (80.6)

Table 3. Attitude toward Medico-Legal Affairs

Variable	Positive Response N (%)
Fair communication and informed consent	144 (90.0)
Inform police after OT death within 24 hours	124 (77.5)
Recommend postmortem after OT death	115 (71.9)
Consent required in emergency	123 (76.9)
Transparent disclosure after complications	157 (98.1)

Table 4. Practice Patterns Related to Medico-Legal Affairs

Variable	n (%)
Maintain MLC register	131 (81.9)
Maintain OPD records	153 (95.6)
Computer records considered valid	125 (78.1)
Frequently encounter medico-legal issues	65 (40.6)
Faced compensation claims	21 (13.1)
Consult legal expert during MLC	75 (46.9)

DISCUSSION

The present prospective cross-sectional study evaluated the knowledge, attitude, and practice regarding medico-legal affairs among Indian ophthalmologists. Overall, the findings demonstrated satisfactory awareness regarding informed consent, documentation, emergency responsibilities, communication following complications, and maintenance of medico-legal records. However, deficiencies remained in selected medico-legal domains, including eye donation in medico-legal cases, statutory limitation periods, and legal responsibility associated with equipment failure. Similar observations have been reported in previous studies evaluating medico-legal preparedness among healthcare professionals (5,9,10).

Most participants demonstrated adequate knowledge regarding informed consent, medical negligence, police notification, and medico-legal documentation. More than 80% correctly identified important legal obligations encountered during routine ophthalmic practice. These findings are consistent with previous studies that reported satisfactory theoretical knowledge but incomplete understanding of specific legal provisions and professional responsibilities (5,9,10).

An important finding of the present study was the overwhelmingly positive attitude toward transparent communication following complications. Nearly all participants believed that patients should be informed honestly regarding adverse events and subsequent

management. Open communication, empathy, and comprehensive counselling have consistently been associated with reduced medico-legal disputes and improved doctor-patient relationships (6,7,12).

The majority of respondents reported good medico-legal practices, including maintenance of medico-legal registers, preservation of outpatient records, preference for written informed consent, and acceptance of electronic medical records. Comprehensive documentation remains one of the strongest legal safeguards for clinicians because medical records frequently constitute the primary evidence during judicial proceedings. International recommendations similarly emphasize that informed consent should be regarded as a continuous communication process supported by meticulous documentation (6,13).

Despite satisfactory overall performance, several knowledge gaps were identified. Considerable uncertainty persisted regarding eye donation in medico-legal cases, statutory limitation periods, and liability associated with equipment-related complications. These findings indicate that practical medico-legal training remains inadequate and should receive greater emphasis during postgraduate education and continuing medical education programs (10,11).

Although approximately two-fifths of participants encountered medico-legal issues during clinical practice, relatively few had

experienced compensation claims. This observation suggests that adherence to standard clinical protocols, effective communication, and appropriate documentation may substantially reduce litigation risk. Nevertheless, routine consultation with legal experts remained inconsistent, highlighting the need for institutional medico-legal support systems and regular professional training (5,14).

The present study has several strengths, including participation of ophthalmologists from different professional designations and healthcare settings, along with the use of a structured pre-validated questionnaire. However, the cross-sectional design, self-reported responses, and recruitment from a limited geographical region may restrict the generalizability of the findings. Future multicenter studies involving larger sample sizes are recommended to further evaluate medico-legal preparedness among ophthalmologists across India (15).

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