

## Review Article

# Modern Anesthesia and Its Medico-Legal Aspects

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### Abstract

*The practice of anesthesia has changed dramatically since the days of John Snow. The modern anaesthesiologist is now both a consultant and a primary care provider. The consultant role is appropriate because the primary goal of the anesthetist- to see the patient and comfortably through surgery- generally takes only a short time. However, because anaesthesiologist manage all "noncutting" aspects of the patient's care in the immediate perioperative period, they are also primary care providers. The "Captain of the ship" doctrine, which held the surgeon responsible for every aspects of the patient's perioperative care is no longer valid. The surgeon and anesthiologist must function together effectively, but both are ultimately answerable to the patient rather than to each other. Patient can select their own anesthiologist, as well as the surgeon. On the other hand an anesthiologists have every rights to choice a surgeon, or refuse giving anesthesia to a certain patients. The practice of anesthesia is no longer limited to the operating room. The anesthiologist are now routinely asked to monitor, sedate and provide general or regional anesthesia outside the operation room. Anesthiologist have traditionally been pioneers in cardiopulmonary resuscitation and continue to be integral members of resuscitation team. Preoperative evaluation of patients, perioperative and postoperative monitoring and care is absolutely essential. Surgeon-anesthiologist, anesthiologist-patient rapport/ co-ordination should be maintained. Documentation is important for both quality assurance and medico legal purpose. Preoperative and intraoperative anesthetic record must be preserved as it serves many purposes. This record should as pertinent and accurate as possible. The written consent with a witness must be taken. The postoperative notes are also essential as many of the patients files complaint against the anesthiologist, surgeon, and hospitals. Therefore, there are no alternatives rather to preserve all sorts of written documents for their own safety.*

**Key Words:** Medico-legal Aspects, Patients document, Court Attendance O.T. Mishaps.

### Introduction

Amongst all disciplines of medicine, anaesthesiology is probably the most litigation-prone subject. Any death in operation theatre either due to natural cause or otherwise is to be reported to the proper authority and police<sup>1,2</sup>. Patient or the party has right to expect something form his anaesthetist for his betterment and equally he has right of action of damage, If the anaesthetist fails to exercise the proper and necessary skill and care. All anaesthetists should know something about the medico-legal aspects of anaesthesia so that they will be able to do their duties more efficiently and avoid untoward problems as far as possible<sup>3</sup>.

### Discussion

The medico-legal aspects of anaesthesia can be broadly divided into 3 parts.

#### 1. Related to anesthetist and his legal status

Anesthetists may be of either of 2 types. The first is an ordinary medical graduate, but he is a legally qualified person to render anaesthesia as he acquired some working knowledge during his student career and received training in later period. The second is a specialist anaesthetist either with diploma or degree in anaesthesiology. An anaesthetist should be a specialists anaesthetist rather than an ordinary qualified anaesthetists<sup>4</sup>.

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An anaesthetist should have adequate skill and professional knowledge in his subject and should exercise reasonable care to his patients. His professional knowledge should be up-to-date as far as practicable. But all anaesthetists are not necessarily expected to possess the highest degree of knowledge and skill. A general practitioner of anaesthesia may not have the knowledge and skill of a consultant. Similarly a junior anaesthetist may not require the same degree of skill and capability as that of most senior anaesthetist. But he should know his limitations and have power to judge the cause individually as to whether it is within his competence or when to seek assistance of the consultants.

Reasonable degree of care in his professional work is absolutely essential but error of judgement may occur and it varies from person to person. Inevitable accidents may always occur, but it should better not be regarded as negligence and the case should be decided very carefully in the light of particular facts and findings established by evidence. In case of grave emergency and in difficult situations minor accidental slips may occur for which the anaesthetist should not be blamed<sup>5</sup>. Similarly for any injury resulting from the patient's anatomical abnormality and idiosyncrasy of drug he is not liable provided these have not resulted from the anaesthetist's negligence. Liability of negligence will occur when the duty of care and attention exists and when there is dereliction to discharge the said duty and when damage or injury ensues due to failure to exercise the said duty. In law, malpractice connotes breach of duty brought about by omission to do something which a reasonable man would not have done. The anaesthetist should himself be physically and mentally fit for administering anaesthesia. He must not be under influence of alcohol or some drugs, particularly in his working period.

A qualified specialist anaesthetist acts as an independent contractor. He has got his own judgement, skill and knowledge and should not be guided by others. Anaesthetists employed by the hospital should follow the hospital rules. Hospital authority may also be held responsible at least to some extent, for any negligent act of his employee. The anaesthetist should never be guided by surgeons, though he will try his level best to help the surgery. If any anaesthetist is employed by any surgeon and works under his direction and uses anaesthetic drugs and techniques according to the surgeon's advice, he must have written documents from the surgeon concerned accordingly. Charge of medical negligence

only occurs in presence of patient doctor relationship, it is immaterial that the patient was being treated free<sup>6,7</sup>. An otherwise qualified doctor but not anaesthetist may administer anaesthesia only in life-saving conditions where no other qualified anaesthetist is available. But he should inform the surgeon and the party in writing about his inadequacy and the law does not protect and unqualified anaesthetist though he may be qualified in other discipline. No anaesthetist should act as surgeon at the same time unless it is life-saving and no competent surgeon is available. An anaesthetist should never give guarantee of cure.

The anaesthetist should keep himself updated with recent developments in anaesthesiology by reading journals, attending medical conferences, seminars etc. An anaesthetist without the express permission of the patient cannot examine, treat or anaesthetise the patient. If he does, he makes himself liable to be sued<sup>8</sup>. Error of judgement is not necessarily due to ignorance. There are various methods of diagnosis and treatment. So long the accepted methods are used, it is not to be blamed. But if error of judgement is the direct result of the negligent act, as for example, he failed to perform any diagnostic test, then it will tantamount to malpractice<sup>7,8,9</sup>.

## **02. Some aspects related to patient**

Before anaesthesia the patient must always be identified. All patients should have written consent of anaesthesia and it should be endorsed by a witness. The patient is free to accept or refuse treatment. Anaesthesia, if given without prior proper and valid consent, is regarded as a battery. A valid consent should be free and there should be no feeling of constraint so that nothing interferes with the patient will. The patients should also be informed about the type of anaesthetics to be used and risks of anaesthesia involved. Consent is not valid : (1) if under the age of 18 years, (2) if premedicated, (3) if under the effect of alcohol or narcotics, (4) in presence of unsound mind, (5) if the consent of spouse is not obtained in sterilization cases and (6) if not written. In case of a minor the parent or legal guardian should give consent. In grave and life-saving situations, when the patient is unable to give written consent, other relatives should be consulted and they may give consent<sup>9</sup>. Opinion of another responsible doctor is also needed. Only the particular operation for which the patient has given consent, should be performed and not any other which is unrelated or entirely different. Preanaesthetic visit and assessment are absolutely essential<sup>1-9</sup>. These should be properly documented.

It should be clearly stated whether the patient is fit for anaesthesia or not. The gradation of operative risk should be ascertained and enlisted. The presence of severe systemic disorders must be explained to surgeons and patient's relatives and a special consent mentioning the risk and chance of even death on operation table should be taken. Routine investigation should always be done<sup>4,5,11</sup>. Special investigation may be needed in presence of systemic disorders. All reports should be attached to history sheet. Specific disease, allergy, contraindication of any drug, anatomical abnormality, proposed type of anaesthesia etc. should be enlisted. Anaesthesia should always be administered in presence of a third person<sup>4,5</sup>. Hysterical patients, patient with hallucinogenic drug like ketamine may believe that an assault or battery is made. In such cases presence of a witness may be extremely beneficial.

### 03. Related to anaesthetic procedures

The patient should be adequately for anaesthesia. Food and drink should be withheld for at least 6 hours before anaesthesia, otherwise risk of vomiting, aspiration and regurgitation increase. Emergency may be delayed, if practicable to allow the stomach to empty. Artificial dentures, limbs and eyes and contact lenses should be removed before taking operation theatre<sup>3</sup>. Identification label should always be there around his wrist or neck. The label must indicate the name, registration number and diagnosis of the case. Injury may occur due to faulty positioning of the patient, particularly in presence of anatomical deformities. Adequate care should be taken to protect the patient from such injuries. Untoward incidents may occur at the injection site and due care should be exercised<sup>1,3,8</sup>. All drugs should be carefully examined and their labels must be read before use to avoid wrong administration of the drug. Contaminated drugs should never be used. Drugs should be used in proper concentrations, doses, rates as per schedule. Careless negligent administration of drugs and anaesthetic should be avoided. Extravasation of fluids and drug should not be done. Intra-arterial injection of thiopentone should never be given and its i.v. use in antecubital fossa is better avoided.

Trauma may occur during laryngoscopy and endotracheal intubation. Knocking out a tooth and injury to vocal cords and larynx may occur. The anaesthetist should exercise due care to prevent such injuries. Throat pack, whenever given, should be adequate and must be removed before extubation. Throat pack and its removal should be recorded in the anaesthetic note<sup>4,5,7</sup>.

Anaesthetic machine, laryngoscope, gas cylinders, suction machine, endotracheal tubes and other equipments should be checked before use. Various injuries and accidents may occur due to defective equipments. An anaesthetist should never work with defective machines and he has every right to refuse to use such faculty equipments until these are properly repaired. The manufacturer and hospital authority may be liable for failure to ensure their adequate maintenance. Regional block should never be attempted if sterility is in doubt.

Anaesthetic explosions are dangerous and every attempt should be made to prevent such occurrence. No bare electric circuits should be in operation theatre. Explosive mixtures are to be avoided. Proper earthing of the electrical equipments is essential. Diathermy and other electrical apparatuses should be used with caution. Proper education is needed to all staffs, surgeons, nurses and even paramedical people. Anaesthetist should ensure post-anaesthetic care adequately and the patient should never be handed over to the nurse till complete recovery<sup>1-11</sup>. The anaesthetic case note is most important and must always be kept in good order. The note should be adequate, accurate and factful as far as practicable<sup>10,11</sup>.

In spite of best patient care, untoward incidents, error of judgement and mishaps may occur. But all these lapses or faults should be established by expert testimony following full investigations. Mishaps may occur in various situations. Anaesthetic death is the most serious one and it may be solely due to anaesthetic causes<sup>12</sup>. But 'death under anaesthesia may be due to original or pre-existing disease, the operation itself, incidental or even natural causes. Every death under anaesthesia must be reported to the proper hospital authority and police<sup>5,7,8</sup>. It is always safe and better to hold an inquest, if the deceased dies after anaesthesia without regaining consciousness. An autopsy should always be done whenever any suspicion arises.

In case of nontherapeutic clinical research, the patient's consent is needed. The nature, purpose and risk, if any, of such clinical research should be explained. In hospitals the permission of the hospital authority is also essential. Responsibility of such clinical work rests, solely on the research worker. Under dangerous drug regulations all anaesthetics, narcotics and related drugs should be kept under lock and key<sup>12</sup>. Records should be kept in a separate register. Theft or loss of dangerous drug should be reported to police immediately.

Hospitals may have some special provisions to tackle such drugs<sup>1,5,6,7</sup>. In cases of irreversible coma there is no legal or ethical bar to stop cardiopulmonary resuscitation when permanent brain death is confirmed. However a second opinion of a responsible doctor is needed. Diagnosis of brain death can be made by:

01. Pupils dilated, fixed, no response to light.
02. No corneal reflex.
03. Vestibulo ocular reflex-absent; no eye movement with ice cold water in ear.
04. No motor response within cranial nerve distribution.
05. No gag reflex or response to bronchial stimulation by suction catheter.
06. No respiration even when PaCO<sub>2</sub> is allowed to rise above the threshold level for respiratory stimulation. In practice the patient is ventilated with 100% oxygen for 10min, followed by 5% carbon dioxide in oxygen for 5 min. Ventilator is then disconnected for 10 min. While oxygen is insufflated to the trachea at 6 lit/min. There will be no spontaneous respiration. Exclude muscle relaxants and other drugs as a cause of respiratory failure.
07. Deep coma- Drug intoxication, hypothermia, metabolic and systemic disorders; serious acid base defects, electrolyte changes, and blood sugar disturbances should be excluded.
08. Spinal reflexes can be present even when brain death has occurred.
09. Electroencephalography is not essential in the diagnosis of brain death, though it may be valuable at an earlier stage in patient care. Euthanasia is contrary to public interest and is also against the spirit of the declaration of Geneva.

## Conclusion

Under dangerous drug regulations all anaesthetics, narcotics and related drugs should be kept under lock and key<sup>12</sup>. Records should be kept in a separate register. Theft or loss of dangerous drug should be reported to police immediately. Hospitals may have some special provisions to tackle such drugs<sup>1,5,7,11</sup>. The job of an

anaesthetist may not always be light, care-free and uneventful. At times it may become hazardous with medico-legal implications. A capable and efficient anaesthetist should always keep his eyes open towards the possible complications with their likely medico-legal implications. All anaesthetists should be better be covered by insurance<sup>10,11</sup>.

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