

Medico-legal aspects of anaesthesia practice

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Summary

The public especially in West Malaysia are becoming more aware of their rights and litigations are on the increase. Fortunately in East Malaysia there are fewer cases. The legal aspects of anaesthesia practice are very much on the lines of British system. Here the cause for compensation or legal action depends on the proof of negligence. Currently in West Malaysia all anaesthetics are being given by medical practitioners. In East Malaysia the anaesthetics are being given mainly by Medical Assistant's who have been trained for about six months to give anaesthesia in all government hospitals. There are guidelines on minimum standard of safety for patients undergoing general anaesthesia, though this is not as elaborate as those in Western countries.

Key words: Legal problem - Anaesthesia, Nurse Anaesthetics, Liability/Responsibility, Anaesthetic Dispute, Anaesthetic Complications, Standards of Monitoring.

"Over the past few years, there has been a substantial increase in the number of cases reported to the society and I expect this trend to continue".

Medical Protection Society

Introduction

One of the most distressing findings from mortality studies is that anaesthesia is the major cause of death in perfectly healthy young patients undergoing uncomplicated operations.¹ The moral is clear: anaesthesia is not without risk and is not to be undertaken lightly.

Legal Proceeding of Problems

In medical practice, the common sources of legal proceedings are negligence, defamation and trespass to persons. The bulk of serious legal problems however fall within the sort of negligence.

Negligence

For a negligence claim to succeed the plaintiff must prove three elements - (a) that the defendant owed a duty of care; (b) that there was a breach of that duty; and (c) that as a result, the plaintiff suffered damage.²

The plaintiff must show that he suffered damage as a result of a breach of duty owed by the anaesthetist. a breach of duty which does not result in a damage does not however, constitute negligence. The burden of proving negligence rests on the plaintiff - ordinarily the defendant does not have to prove that he acted with sufficient care and skill as it is for the plaintiff to prove that the defendant failed to comply with the accepted standard of duty of care. The standard of proof is based firmly on the balance of probabilities - a standard, it should be noted which is lower than that demanded in criminal trials.

An apparent exception to the question of burden of proof arises within the rules of evidence when the proof is said to be shifted from the plaintiff to the defendant. It occurs where the plaintiff has made out a *prima facie* case of negligence according to the maxim *res ipsa loquitur* – the thing speaks for itself.³

The standard of care is judged by the standard of an ordinarily careful and competent practitioner of that class. The anaesthetist will be found to be negligent if he had failed to make a proper pre-operative assessment of the patient; failed to check his equipment; failed to monitor the patient's blood pressure and/or heartbeat in the course of surgery; or if, an inevitable accident having occurred, the anaesthetist fails to invoke adequate resuscitation measures⁴. Some specific failure on the defendant's part must be pin-pointed.

According to a book published in 1987 by Margaret Brazier, *Medicine, Patients and the law*,⁵ the following examples are given: An anaesthetic tragedy of itself is no real evidence of negligence. An anaesthetist who failed to check equipment and ended up administering carbon dioxide instead of oxygen was put on trial for manslaughter in New Zealand. An anaesthetist who injected cocaine instead of procaine was found negligent in England as was the junior doctor who injected pentothal into an anaesthetised patient, causing his death. If the wrong drug, of the wrong dosage, or a contaminated drug, is used, the patient's claim will generally be made good. The exception will be where the error cannot be laid at the anaesthetist's door. It can, therefore, be seen that the responsibility of an anaesthetist is a heavy one. Failure to observe a standard procedure will subject him to liability.

It should further be pointed out that failure to obtain the consent of the patient for a particular treatment may sometimes result in a doctor facing a charge of criminal assault.⁶ In addition, a civil claim for damages will lie for which there is usually no defence. Even where consent has been obtained, the patient may claim damages for negligence alleging that the doctor failed in his duty to give a sufficiently full explanation or disclosure of the risks inherent in the proposed treatment. Informed consent requires a detailed disclosure of possible risks as required in the United States of America and Canada.⁷

A potential litigant wishing to pursue a claim for damages is obliged to commence legal proceeding within a certain time limit imposed by law. Where the claim is for personal injuries or death the time limit for the commencement of proceedings is generally 6 years from the time the cause of action arose.

Anaesthetic Liability.

At present, the courts take the view that the anaesthetist must accept the major responsibility for the care of their patient during the recovery period until the patient is conscious and able to control his vital functions. Should the evidence show that the nurse in charge had fallen short of her expected skills, then the hospital authorities may have to accept some of the responsibility, but the major liability will always rest with the anaesthetist.

For doctors in the private sector, the medico-legal insurance is vital for them, though this may not be so necessary for the para-medics as the employer would be held liable for their negligence. The government, on the other hand, bears full responsibility for all doctors and other para-medical staff.

The majority of claims which have arisen have been against junior anaesthetists working without proper supervision⁸. One of the most disturbing features arising out of the analysis of their claims is that in many cases the anaesthetist was clearly insufficiently trained or lacked the required experience to handle the particular case by himself without the assistance of a more experienced anaesthetist.

Inadequacy of properly trained or experienced staff has often been attributed as the reason for junior staff to undertake work which were beyond their capabilities.⁹ More often, it has been the failure on the part of the consultant in charge of the administration to ensure that suitably trained staff were available who may be assigned to the operation theatre lists appropriate to their level of experience and training. This is a universal problem.¹⁰

Problems in East Malaysia

Particular problems are encountered in the case of East Malaysia¹¹. Because of the lack of sufficiently qualified medical officers, the anaesthetic services are mainly run by medical assistants. Furthermore, until 1986, there was no well defined medico-legal cover for medical assistants which was then a major cause for concern to the Medical Assistant in particular, and to the administration generally. The system worked on a tacit understanding that medical assistants were covered either by the administration or by operator (surgeon).

The administration can only be held responsible in so far as there is any negligence in technical administration of anaesthesia, as they are employing a para-medical whom they consider is competent enough to administer. This is called primary liability.

The other is vicarious liability, where a person is liable for negligence of an employee when acting in the course of the employment.¹² Therefore a medical assistant is allowed to administer D.D.A.; and poison drugs only under supervision or orders of a doctor.

The position in East Malaysia now is that medical assistants have to be supervised by at least a registered medical practitioner with anaesthetics experience (vicarious liability) and to a certain extent by the hospital administration (primary liability).

Anaesthetic Dispute

A large portion of anaesthetic disputes are resolved or settled out of court and never reach the stage of trial except occasionally when either party resorts to the court only for the purposes for the assessment of damages. The majority of anaesthetic mishaps that have ended in court or settled by government or M.D.U., although often avoidable, are due to normal human error or lack of judgement rather than negligence. The list of common causes of non fatal complications reported are damage to teeth, peripheral nerves, superficial thrombosis, epidural foreign bodies, awareness and extravasation of drugs. To date, I have no knowledge of any such accidents being brought for settlement in Malaysia as is the position in some Western countries¹³. The common causes of death are aspiration of gastric contents; difficult intubations; airway obstruction; hypo-ventilation; disconnections and undetected hypotension. These common complications occur year after year.^{14, 1-3}

Certainly, maternal anaesthetic which is now well studied indicate that there are no signs of improvement. Perhaps, it is unrealistic to expect any reduction in number of deaths when it should be remembered that new anaesthetists and assistants are constantly being recruited and trained. New equipment, techniques and drugs may improve anaesthetic practice, but their use has to be mastered and their safety ultimately proved in everyday clinical practice. Furthermore, financial and staff considerations restrict the availability of equipment, other facilities and the number of suitably qualified staff.

Statistics or other relevant information of anaesthetic mishaps are often difficult to obtain. Even the limited ones which are available are incomplete as collection of information and methods of reporting such incidents has been scant especially in the private sector. However, from the available

information, the statistics show a steady increase in the number of claims made against anaesthetist for the period 1983 - 1989. (15). It is, however, important to note that the reason for this increase represents a trend towards more litigation than a deterioration of anaesthetic standard.

It is thus of paramount importance that an attempt should be made to reduce the incidence of errors by the improvement in techniques and monitoring as well as the other possible hazards that have been alluded to in anaesthetic literature. All these factors will influence judicial thought and lead the courts to take a more critical view of the reasonable practitioners. It is the present hope that the speciality will keep pace with the demand for ever rising standards which will assuredly confront its members.

Attention must be given to the invaluable source of educational material which resides in the reports of enquiries into mishaps which have occurred in clinical anaesthetic practice. But there is no easy access to such enquiries because they are invariably complicated by conflicting interests of the parties and witness involved in the actual or impending legal suits. Nevertheless, the existing large accumulation of detailed information relating to anaesthetic mishaps cannot continue to remain entombed in guarded vaults when disclosure of such information could provide lessons of inestimable value to the progress in the standard of care of patient requiring anaesthesia. The question is whether these conflicting aspects, each important in its own can be bridged. The possible solution appears to be in the setting up a Consultative Review Council Study on Surgical and Anaesthetic Morbidity and Mortality (or a confidential enquiry into peri-operative deaths).¹⁵ Table 3.

This is truly an independent body held in respect by the medical profession for its confidentiality and free of political service or disciplinary sensitivity. There is strict application of complete anonymity, confidentiality and legal protection, so that individuals and locations cannot be identified. Such a scheme will go a long way towards the maintenance of proper standards and the safeguarding of the interests of everyone concerned which invariably will lead to the avoidance of any injustice being caused to the relevant parties. The Ministry of Health is presently organising such a Council.

Lastly, we have provided an equipment/monitoring list which is the minimum required for patient monitoring list which is the minimum required for patient monitoring and safety. This is similar to the list put out by the Australian Anaesthetic Society.¹⁷⁻²¹

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Footnote

Annotated References.

1. Major F, Anaesthetic Mishaps: medico-legal implications', *Current Opinion in Anaesthesiology* 1989, 2: 730-734.
2. Clerk and Lindsell on Torts, 1989, Sweet and Maxwell chapter 10.

3. Buckley, *The Modern Law of Negligence* 1988, Butterworth, pages 30-36 and *Clerk and Lindsell on Torts*, chapter 11 under the heading 'Professional Liability - Medicine and Allied Professions', page 629.
4. Mason in the article referred to in note 1 above refers to a decision of the South African Court of Appeal in 1987 which discussed certain important issues relating to the legal liability of anaesthetists. Mason states: "A surgeon and anaesthetist were appealing against conviction for manslaughter arising out of the death of a young girl during tonsillectomy. The inexperienced anaesthetist had inadvertently intubated the oesophagus it became obvious that the patient was cyanosed. The surgeon was thus forced to take over the anaesthetic management and reintubate. Unfortunately resuscitation was not successful. In upholding the appeal by the surgeon and confirming conviction and sentence of the anaesthetist the judge ruled that the operating surgeon and anaesthetist are members of a team and neither is responsible for the other's negligence. He further held that they are not agents of one another and neither is employed or controlled by the other'."
5. 1987, Penguin Books Ltd, England at page 79. See also Buckley, *The Modern Law of Negligence*, 1988, Butterworth, page 283-290 and Bartlett, *Professional Negligence*, 1985, Law Book Co, Australia, Chapter 7.
6. Skegg, *Law, Ethics and Medicine, Studies in Medical Law*, 1988, Oxford University Press, Chapter 2. 'General Capacity to Consent to Medical Procedures' and Chapter 4, 'Consent to Medical Procedures'. See also Mason and McCall Smith, *Law and Medical Ethics*, 1983 Butterworths, page 117 under the heading, 'Proceeding without consent - the consequences'.
7. His Majesty Sultan Azlan Shah, "Medicine, Ethics and the Law" in the book *His Majesty the Yang Di-Pertuan Agong Sultan Azlan Shah*, 1989, Professional (Law) Books Publishers, Kuala Lumpur, at page 141 and Skegg, above at pages 76-95.
8. These are deductions made by the writer from the studies of cases which were made available to the writer.
9. These are deductions made from case notes made available to the writer.
10. See Table 1, below.

Table 1
Percentage claims reported by specialists (hospitals)

O & G	28%
General Surgery	21%
Orthopaedic Surgery	19%
Anaesthesia	11%
Accident and Emergency	11%
Psychiatry	4%
Others	6%

11. This is the present state of affairs in East Malaysia as observed by the writer.
12. See Clerk and Lindsell referred to in note 2 above, Chapter 3 and Buckley, referred to in note 4 above at para 18.19 and 18.20.

13. See Table 2, below.

Table 2
Malaysia – Anaesthetic Experience 1982 to 1987 (Private Sector)

Claims : 7 cases
3 cases settled out of court : 1 brain damage
2 deaths

Total payment in excess of M\$300,000

4 claims as yet unresolved:

Hypoxia : CNS damage during appendicectomy
Hyponoxia : 2 air embolus : death : SMR
C. Section : Death, cause unknown
Diathermy burn under C.A.

Incidents reported: Malignant Hyperpyrexia
PPH death
Brain damage : cosmetic surgery
Pulmonary Hypertension : Post operative death
Hypoxia 2 Haemorrhage : brain damage
Anaesthetic deaths : cause unknown

14. 1. Lunn, J.N., Mushin, W.W. Mortality Associated with Anaesthesia. London: The Nuffield Provincials Hospitals Trust, 1982.
2. Holland, R. Anaesthetic mortality in New South Wales. British Journal of Anaesthesia 1987; 59: 834-41.
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15. See Table 3 (Government Sector).
16. See Table 4, below.
17. Eichorn, J.H., Cooper, J.B., Cullen D.J., Maier, W.R. Philip, J.H., Seeman R.G. Standards for patient monitoring during anaesthesia at Harvard Medical School. Journal of the American Medical Association 1986; 256: 1017-20.
18. American Society for Anesthesiologists. Standards of basic intraoperative monitoring Newsletter 1986; 50:9.
19. Cass, N.M., Crosby, W.M., Holland, R.B. Minimala monitoring standards. Anaesthesia and Intensive Care. 1988; 16:110-113.
20. Advisory Report on Anaesthesiology, Part I: Recent developments in anaesthesiology. Committee of the Health council of The Netherlands, 1978.
21. Recommendations for Standards of Monitoring during Anaesthesia and Recovery. Published by: The Association of Anaesthetists of Great Britain and Ireland.

Table 3 : Medico-legal cases in Malaysian Government Hospitals

Year	Diagnosis/Operation Age / Sex	Type of Anaesthesia	Urgency	Monitoring	Complications	Out come	Medico-Legal Implications
1970 to 1980	Heriated Lumbar Disc. 27 years – Female	Under G.A.	Elective	Manual	Foreign body (nozzle of Xylocaine spray lodged in stomach)	Gastroptomy for removal of r/body	Compensated M \$7,500.00
	Huge toxic multi- nodular goitre 47 years – Male	Under G.A.	Elective	ECG & BP	Cardiac arrest in or ? Myocardial infarction	Died in OR	Pending court settlement
	Dental extraction Dental abscess & concurrent viral encephalitis 3 years – Female	Under G.A.	Semi emergency	Nil	Convulsions with cardiac arrest in wards, fits present prior to extraction	Severe neuro deficit	Pending court settlement
1981 to 1985	MVA with fracture neck or femur 18 years – Female	Under spinal	Elective	ECG	Cardiac arrest in or ? Hypotension ? ? Bradycardiac	Recovered with Avascular Necrosis FEM, Osteoarthritis	Compensated M \$144,869.24
	Left inguinal abscess 11 years – Male	Under I/V Ketamine	Semi emergency	Manual	Cardiac arrest in recovery room	Died in ICU	Out of court settlement compensated M \$8,000.00
	Repair of cleft lip and palate	Under G.A.	Elective	Manual	Cardiac arrest in or : Dislodgement of – ET tube	Died in ICU	Out of court settlement M \$5,500.00
	Gluteal abscess adult – Male	Under I/V Ketamine	Semi emergency	Manual	Low BP resuscitated pre-opt G.C. poor with ? septicaemia & D. ketoacidosis	Died in ward P. Mortem: fatty tissue infiltr in liver	Case closed not compensated
	Acute appendicitis 58 years – Female	Under G.A.	Emergency	Manual	C. arrest in r. room ? Poor reversal & hypoventilation	Poor with neuro- logical deficit	Pending court settlement

Year	Diagnosis/Operation Age / Sex	Type of Anaesthesia	Urgency	Monitoring	Complications	Out come	Medico-Legal Implications
	Ovarian cyst 45 years – Female	Under G.A.	Elective	Manual	Cardiac arrest in OR	Died	Pending court settlement
1986 to 1990	Caldwl luc operation 27 years – Male	Under G.A.	Elective	Manual	Cardiac arrest in OR? Adrenaline pack & one lung ventilation	Higher mental impairment and petudo- bulbar palsy	Pending out of court settlement
	Caesarean section 36 years – Female	Under G.A.	Emergency	Manual	C. Arrest in OR from ? Amniotic fluid OR Pulmonary embolism ? Cardiomyopathy	Died of brain stem stroke	Pending court settlement
	Bronchial asthma 40 years – Female	Medical case	Seen in A & E Dept.	ECG & BP in ICU	Cardiac Arrest? status asthmaticus	Brain Stem death	Pending court settlement
	Caesarean section 30 years – Female	Under G.A.	Emergency	ECG & BP Monitors	Anoxia? Broncho Spasm/idiosyncratic response to GA drug	Vegetative state	Pending court settlement
	Pelvic floor repair 45 years – Female	Under G.A.	Elective	Manual	C. Arrest in OR from Hypoxaemia dif. intubation	Died	Pending out of court settlement
	Chronic max. sinusitis bil nasal polyps 48 years – Male	Under G.A.	Elective	ECG & BP monitors	C. Arrest? Anaphylatic reactions	Vegetative state	Pending court settlement
	L. Mandible Abscess 3 years – Male	Under I/V Ketamine	Semi emergency	ECG monitor	C. Arrest in OR? anaphylatic shock	Used in ward	Pending court settlement

Table 4
Recommendations for standards of monitoring during anaesthesia and recovery

Monitoring of anaesthetic machine:

1. **Oxygen Supply:**
 - a. Bulk supply : Low pressure alarms
: Audible warning device
 - b. Oxygen Analysers : each anaesthetic machine
2. **Breathing system**
 - a. Disconnect alarm
 - b. Pressure manometer
 - c. Spirometer
 - d. Capnometer / capnograph
3. **Monitoring the patient**
 1. **Continuous monitoring devices**
 - a. ECG monitor
 - b. Non-invasive blood pressure monitor
 - c. Pulse oximeter
 - d. Pulse meter – if ECG monitor not available
 - e. Capnometer / Capnograph where appropriate
 - f. Peripheral nerve stimulator
 - g. Temperature monitor
 2. **Specialised monitoring**
 - a. Intra-arterial blood pressure monitoring
 - b. C.V.P. monitoring
 - c. P.C.W.P. monitoring
4. **Recovery**
 - a. Adequate monitoring system
 - b. Trained nursing personnel