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The Role of the Anaesthetist in Anaesthesia

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'For some must watch while some must sleep.'

Thus spoke Hamlet and he may well have been referring to the role of anaesthetists who not only must be watching while their patients sleep but this watch must extend into all areas which are associated with the care of persons requiring anaesthesia. The price of patient safety is eternal vigilance. This was recognised by the founders of the Society over 50 years ago when they adopted our motto 'Vigila et Ventila'. The anaesthetist is a member of a team committed to the care and improvement of the health of a person who has sought medical help because of some disability. The team consists of other medical practitioners, nursing staff, paramedics, technicians and any person who is involved in the running of a hospital or in the maintenance of services involved in patient care. The anaesthetist has a frontline position in the safe care of patients whose welfare must be paramount at all times.

Gone must be the days when anaesthetics were given with a finger on the pulse and a sphygmomanometer to record the blood pressure as the only forms of supposed monitoring. One must remember that a monitor is a warning device and if the equipment does not have either audible or visual alarms which are set off when preset criteria are not met, then it is not a true monitor. In my teaching hospital twenty-five years ago there was only one cardioscope which did not have any alarms and that was only available for cardiac cases. At the same time general practitioners were giving anaesthetics in the homes without atropine premedication and without oxygen or suction available. As you can imagine such anaesthesia is not acceptable today, if it was then. It certainly did not reach today's standards of safety. About twenty years ago there appeared a caricature of the ideal anaesthesiologist. This pointed out the many roles in theatre of the anaesthetist during anaesthesia. Presumably he did not leave the theatre to assess his patients preoperatively.

Today, the ideal anaesthetist is not only involved in the overall care of his patients psychologically, physically, physiologically and pharmacologically before, during and after anaesthesia, but also involves himself in assuring that the highest practical level of anaesthesia services possible are provided to all persons at any time when needed.

Because of his involvement and experience in resuscitation and the giving of cardiopulmonary support to patients during anaesthesia the anaesthetist has developed and become involved in intensive care, which is really a continuation of his role in theatre but without the associated anaesthesia. It would not be unreasonable also to say that methods and techniques in monitoring and cardiopulmonary support which have been developed in intensive care units have also been extended from or brought back into anaesthesia.

Anaesthetists as providers of analgesia and sedation for procedures, be it by general or local anaesthetic techniques or the administration of drugs, have extended their field into pain relief, on a short-term basis as in obstetrics or on a long-term basis for cancer or other chronic forms of pain.

The anaesthetist needs the assistance of various facilities and it is his responsibility to see that at all times these facilities are adequate, up to standard and regularly checked and maintained at that standard. It is also essential that anyone who is responsible for the care of either the patients or the facilities has been properly trained to that level of responsibility. The Society, in association with the Faculty, has been involved in the development of

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standards which cover all facets of anaesthesia. One of the most important moves in this direction was the request by the Society, some thirty years ago, for the development of the Faculty which was then recognised as the educational body for anaesthetists in Australasia. The Faculty's role has more recently been extended to South-East Asia.

The Faculty has the responsibility in Australasia in determining the amount and quality of training necessary as well as the level of knowledge to be attained before obtaining the Fellowship and being registered as a Specialist. There has also been agreement between the General Practitioner Groups and the Faculty that in future persons entering General Practice and wishing to be accredited to administer anaesthesia should have done a total of at least twelve months' training in accredited anaesthetic departments. It has to be recognised that in a country as vast and sparsely populated as Australia it is not possible to have all anaesthetics given by Specialist Anaesthetists and in many areas General Practitioners are, and will continue to be, required to administer anaesthesia.

In order to achieve and maintain these standards it is necessary for the Faculty to be involved in negotiations with such governing bodies, and governments if necessary, as are responsible for the staffing and equipping of hospitals. The Faculty must maintain standards for the accreditation of hospitals for teaching.

There must also be guidance as to what is a reasonable standard for equipment and various bodies have developed standards for our specialty. The International Standards Organisation has developed standards not only for the quality of equipment but also for the taper sizes of fittings so that any piece of resuscitation equipment that has been produced can be used in association with another piece, i.e. the tapered fittings are the same size. The Society, through support to some of its members to attend international meetings, has made a significant contribution to the International Standards Organisation.

The Standards Association of Australia has standards of quality related to all types of equipment, varying from syringes and needles to electrical standards for monitoring equipment, to suction, to gas pipelines, or the quality of operating and other lights for clinical areas. The Society and the Faculty, through many of its members, has once again made a major contribution to the Committees of the Association. The Faculty has also developed guidelines on the facilities and services necessary in areas where anaesthetics are administered or patients recover from anaesthesia.

In the last ten years the Australian Council on Hospital Standards has been set up as an independent body which has developed its own set of standards on all facilities in hospitals, be it fire safety or levels of medical and nursing care. This body carries out surveys of hospitals and may accredit them for one to three years depending on the level they have reached according to the standards for patient care. Although the Council has its own standards it is influenced by other persons or organisations in setting its standards. Anaesthetists are fortunate to have a liaison committee with the Australian Council on Hospital Standards with two Society and two Faculty members as representatives.

You may well ask with all these standards and an accrediting body, the Council, what does one need to do other than to give safe anaesthetics? In order to give safe and good anaesthetics you have to be sure that all the systems are working and are kept working properly, which means safely. Do not overlook that the principle part of the system is the anaesthetist. In hospitals which have anaesthetic departments the responsibility for the maintenance of all facilities to necessary standards rests ultimately with the head of the department, but it is also the responsibility of any person working within that department to notify any deficiencies in facilities or standards to the head of the department. In other hospitals where there are not departments it is the responsibility of individuals using facilities to make sure that those facilities are regularly serviced and maintained to the necessary standard.

The most important factor towards safety in anaesthesia is to have a properly trained anaesthetist. Besides having a trained assistant to the anaesthetist during the induction and emergence periods, be it nurse or technician, it is essential that there should be an appropriate level of monitoring. What is an appropriate level of monitoring? There are three levels of monitoring:

1. The delivered gases — to see that there is an adequate amount of oxygen and not an excessive amount of volatile agents. It is essential that hospitals ensure that the capacity to monitor the inspired oxygen concentration is available and the responsibility of the anaesthetist to see that it is used.
2. Ventilation is adequate — to see that the gases are being effectively delivered to the patient — this can be monitored by
   (i) a disconnect alarm if the patient is being ventilated;
   (ii) end tidal carbon dioxide;
   (iii) oximetry.

A disconnect alarm must be available to be used with mechanical ventilation. It is the responsibility of the anaesthetist to ensure it is used when it is available.

3. Patient perfusion. Adequate perfusion of the brain at all times with oxygenated blood must be ensured. Monitoring of the following may assist towards this end.

(i) precordial or oesophageal stethoscope;
(ii) pulse monitor;
(iii) ECG;
(iv) blood pressure;
(v) oximetry;
(vi) central venous pressure;
(vii) urine output;
(viii) temperature, central and peripheral.

A stethoscope, urine output and temperature gradients are valuable aids to the assessment of the patient but are not true monitors as they have no alarm.

Today it is mandatory to monitor patient perfusion in some manner and recent developments with oximetry have caused much debate on the appropriate monitor. In a patient with cardiac disease an ECG is essential but there would be few who would deny the value of a properly calibrated, accurate oximeter as being near to the ideal indicator of adequate perfusion, being noninvasive, easy to apply, and giving rapid and reliable recordings.

Unfortunately the oximeter is expensive and in a healthy patient having a simple and short procedure a cheaper pulse monitor may be quite adequate. It must be recognised that an ECG only gives an indication of electrical cardiac function but not necessarily of adequate patient perfusion.

However, in any procedure where there may be instability of the cardiovascular system, such as cardiac procedures or where there may be a large blood loss, it is essential that as much reliable information as possible should be obtained by monitoring. It is our responsibility to have appropriate monitoring available and use it if such procedures are being done. It is also our responsibility to be responsible and not demand priority for equipment which we do not need or use.

When discussing monitoring I must recall that a finger on the pulse, red blood and pink tissues in the wound and a chest moving are still very reliable and a good check on the electronic monitors.

There are of course also necessary the basic facilities for safe anaesthesia for the patient as described in the guidelines of the Faculty: these include the anaesthetic machine, suction, a tilting operating table, means of giving IPPV with oxygen, means of intubating the trachea and a defibrillator, all in a properly illuminated room. There must also be the anaesthetic drugs, drugs necessary for resuscitation, and equipment for intravenous infusions.

At all times adequate records of all anaesthetics should be made. What is adequate is what is sufficient to recall to you at a later time all details of that anaesthetic. It would be necessary from a medico-legal point of view, if physical harm has occurred to the patient which may have been due to monitoring equipment or access lines, to have recorded the placing of all monitors and lines. On the other hand, in order to review possible drug effects, it is necessary to know all untoward physiological effects such as vomiting, fall in blood pressure etc.

'Peer review' is a term which was developed by the Government as something which the medical profession should be doing and it was even suggested that this would be enforced on the profession if doctors did not organise it themselves. This is really 'patient care review' and what the good medical practitioner should be doing all the time. Unless adequate records are kept and these are reviewed on a regular basis, unsatisfactory results or complications could be occurring and persist when it is possible to correct or avoid them. For example, vomiting is a common but not necessarily acceptable complication of anaesthesia. One should be assessing the incidence of vomiting, and if it is significant then the drugs, e.g. narcotics, being used should be reviewed. There is a strong move these days for oral premedication in children, but as many of the solutions of sedative drugs are unpalatable, patient acceptance is important. In children who have had several anaesthetics or young children who will not readily swallow medicine, some parents may prefer their child to have an injection, which is over quickly, rather than the trauma of having medicine forced down his throat and frequently even more rapidly returned.

Appropriate records and review will bring forth the nature and relative significance of the problems. This is the true purpose of patient care review and the unfortunate bureaucratic and 'big brother' implications that were suggested by 'peer review' should not prevent the keeping of good records and continuing enquiry into the results of our care of patients.

Drugs, equipment and techniques are continually being improved and so an ongoing education program must be maintained. This not only involves reading journals and attending scientific programs but also teaching others. We rely very much on the skills of the nursing staff in the recovery room. We must be certain that the

nurse, in whose care we leave a patient recovering from anaesthesia, is skilled in the maintenance of the airway and cardiopulmonary resuscitation, and we must also participate in programs to develop and maintain their ability. We should also extend our teaching role to trainees, be they training for a Diploma as a Specialist or for accreditation as a General Practitioner. We have had our teaching and it is our duty to pass this teaching and experience on to others. This teaching may be extended by publishing our experiences with difficult cases or the results of review of case records. We must also remember developing countries, and if possible, be prepared to either go into these areas and work and teach or to help others who can and wish to go out to these areas.

The medical profession has many organisations which are involved in the various sections of care which are necessary at different times for the health of the community. I have mentioned the various standards organisations upon which we rely so heavily. It is our duty to see that these standards are kept up-to-date with current thinking, and possibly more difficult is it to see that the level of equipment in the areas in which we work is kept up to these standards. In these days of financial cuts and constraints, we must not accept this as a reason for lack of monitoring equipment and thereby lowering of the degree of safety for the patient. The only way to have a safe anaesthetic is to have a safe anaesthetist. Priority must be given to equipment which is needed for the safety of patients before sophisticated and expensive equipment which has a small contribution to patient care. Where the equipment I have described above as essential is not available in practice, it is of the utmost importance that pressure be brought to rectify that situation.

Also in these days of financial constraint we must realise that about 80% of hospital expenditure is on staff, and in order to effectively cut costs it may be necessary to cut staff. We must not accept fewer members of staff or untrained and unsupervised staff as a substitute. Equally, we must not work long hours if not essential because of emergency situations, as a person with an uncomplicated hernia is better off than a person who has a repaired hernia but is brain damaged because of the inattention of a tired member of staff whose vigilance had deteriorated.

We must develop our image as a profession whose concern is the care and safety of patients. The Government is all too ready to tell the public, frequently with misquoted data, of how much the medical profession is costing the community in fees and completely ignoring and failing to tell the public what the medical profession is achieving — maintaining high standards of care, teaching at all levels from first aid to volunteer groups, to lectures and tutorials for students and postgraduate students, to serving on committees of hospitals and other medical bodies, and other voluntary work. The Government will not promote us, so we must promote ourselves by bringing the profession, and in particular the importance of safe anaesthesia, before the public.

We must not accept conditions which do not reach adequate standards, nor must we allow any situation which is not safe for the patient. Substandard and unsafe conditions have a very clear meaning to everybody, be they from government, administration or general public, and such situations must not be allowed.

It is said that the Government will only speak with the Australian Medical Association and not with other medical organisations. This, like many statements, is only part truth. The Government does and must recognise both the Society and the Faculty as the bodies responsible for standards and education in anaesthesia and representing anaesthetists. If the Government does approach the Australian Medical Association in these matters we must make sure that the proper information is put forward and not sit back and say we were not represented properly. In all matters there must be agreement and for there to be agreement there must be communication, and this communication must be reciprocal. We must also realise that the Australian Medical Association is the co-ordinating body for the medical profession: we must see that it represents us and we must also give it our full support. We must not sit back and say that a person, a system or an organisation is failing. We must make sure that all systems work properly, and this will only happen with the support of all members, by their being financial members, attending meetings, participating and making a contribution to them, and lastly, by being prepared to accept office. We all benefit directly or indirectly from the efforts of the various medical professional organisations and so they must have our total support. It must not be left to a few but be the responsibility of all.

Finally, perhaps our most difficult role is in our own personal standards. We work very much as part of a team in which the ageing process moves relentlessly on, and we must recognise this in ourselves as well as others. Usually well before the recognised retiring age our sight, and in some cases our hearing, begins to deteriorate. In anaesthesia good sight is essential both for intravenous lines and intubation. Vanity must be overcome and glasses used as soon as any difficulty with vision is noticed. Hearing is equally important, as we must

understand clearly what is being said, especially as the bleeping of monitors and the noise of ventilators is somewhat distracting. One should not accept 'I can't afford to retire' when one knows that there is a physical disability which is hindering a proper performance. Equally, should one allow a respected colleague, whose ability is becoming limited, to continue working with the risk that an innocent patient may suffer and the colleague's reputation be destroyed?

Once again I quote Hamlet, this time in parody: *'To retire or not to retire, that is the question,'* and one of the greatest challenges both in relation to ourselves and our colleagues.

The Society is committed to the highest standards for anaesthetists and anaesthesia, and the theme of this meeting is 'Accept the Challenge'. I ask you all to accept the challenge and fully involve yourselves in the very large field of anaesthesia.