

Letter from Mumbai

BRAIN DEATH: SOME CONUNDRUMS

The diagnosis

Over the 13 years since it was passed, we continue to face practical problems when a patient is proven to be dead by the tests listed under the Transplantation of Human Organs Act, 1994. Readers of this journal may wish to contribute their own experiences and suggestions after reading of our difficulties.

The vast majority of Indians, including the literate sections, remain either ignorant of this Act and its provisions or have a very fuzzy notion of it. This underscores the need for continued efforts at broadcasting the rationale for promulgating the Act and explaining its various sections. We continue to face relatives who, one eye on the oscilloscope tracing the electrical patterns generated by the heartbeat, refuse to accept that their patient is dead. Presence of the PQRST complex is, in their minds, proof positive of life. They go on to state that we must continue doing all that is humanly possible to save their patient.

The concept that the diagnosis of death no more rests only on the permanent cessation of the actions of the heart needs to be disseminated. Evidence of extensive, permanent, irreversible damage to the brainstem as adequate and legally valid ground for the diagnosis of death must gain general acceptance. Over time, we must shed the word 'brain' in the term 'brain dead'. We shall thus spare untold agony, suspense and expense to the families of patients who have died.

In doing so we shall also help patients in desperate need for intensive care that could save their lives. As matters stand, the dead patient remains on ventilator, intravenous drips and a variety of drugs. As long as the body remains in the intensive care unit, no other patient can be brought in to use these life-saving facilities wasted on it.

Conveying the diagnosis to the family

The consultant attending to the patient is the ideal conveyor of the diagnosis to the family. Seniority, experience and authority facilitate transmission of the sad fact in a humane manner and help the family accept their loss. Unfortunately, the consultant is often busy elsewhere when the diagnosis is made and it falls upon the resident doctor to explain the changed circumstances to the family. It is often difficult for this junior doctor to put forth clearly the concept of brain death and answer questions from family members mesmerized by the electrocardiogram on the screen.

Some institutions are trying out a different tactic. As soon as brain death is suspected, the medical social worker is alerted, as the formal diagnosis will take at least 6 hours. During this period, using the skills learnt in training in social work, she initiates a dialogue with the family after introducing herself. She discusses the gravity of illness and offers help in any form required by the family. She keeps the family posted with changes occurring as the tests for brain death are carried out and as the second series of tests is awaited. After the final diagnosis is made, she conveys it to the family. Since she has built up a rapport with the family, it is less difficult for her to broach the topic of organ donation, emphasizing that the family is under no obligation to make such a donation. The family often

finds it easier to discuss pros and cons of organ donation with her and make a decision.

Making the diagnosis when there is persistent metabolic abnormality

Since the criteria for the diagnosis of brain death listed in the Act assume that there is no significant metabolic abnormality, what is to be done when there is persistent metabolic abnormality? Adhering to the letter of the Act will mean losing several potential organ donations.

A suggestion has been put forth that contrast CT scan be used to study cerebral circulation. If this shows total absence of entrance of contrast into the brain, can we make the diagnosis and take follow up action?

Red-tape frustrates organ donation

An accident victim admitted to hospital is deemed 'a medico-legal case' and details on the patient must be provided to the relevant police station at once. After the police have registered such a patient, it becomes mandatory to inform them on certifying death. No action can be taken on the body till the police decide on whether or not an autopsy is required.

We have observed delays of up to 7 hours from the time we inform the police station to the time we are told about whether or not an autopsy is required. Even when relatives have agreed to donate organs for transplantation after brain death and the need for urgent action is explained to the police, hours elapse ere we are told whether or not we can proceed to harvest organs. As we await, the utility of the organs is downgraded and there are occasions when we have to offer our apologies to the family of the patient that despite their permission, we cannot utilize the organs to help other patients.

Taking organs AFTER the heart has stopped

This is becoming increasingly difficult. Unlike the brain dead patient, where a minimum of 6 hours is available for discussion with the family and setting into motion all that is needed to harvest and transplant organs, here we have very little time. Under the circumstances, explanation to relatives, the time taken by them for making the decision and overcoming police and other formalities usually renders the organs unusable.

AT WHAT AGE SHOULD SURGEONS BE FORCED TO STOP OPERATING IN PRIVATE HOSPITALS?

At first sight this question sounds arrogant. Surely, the surgeon will stop operating as soon as he feels that he can no more do justice to the needs of his patients. Who, more than the surgeon himself, is aware of the need for the eye of an eagle, the heart of a lion and the hand of a lady? As the lens clouds, retina degenerates, heart departs from its natural rhythm and races wildly on mild stimulation and the hand trembles, the surgeon will gracefully bow and walk away from the operation table where he had ruled and performed for so long.

Will he, really?

Here are some sentiments that I have heard expressed by surgeons who have many years ago passed the Psalmist's three score years and ten:

‘As long as I can help my patients, I will continue to operate.’

‘I have a keen mind. I am interested in recent advances and keep pace with them. I enjoy the challenges thrown up by surgically treatable disease. I have not lost my stamina. Why should I stop operating?’

‘I have a waiting list of patients for surgery that extends over the next 3 months. Should I disappoint all these persons who have faith in my abilities?’

‘What? I, retire? Are you crazy? With my experience and wisdom I am far better than many of my surgical colleagues half my age!’

A search through the journals shows that unless compulsorily retired or superannuated by hospital rules on reaching a particular age, most surgeons continue well past their prime, undeterred by the fact that their peak performances were in the distant past. Well-administered hospitals constantly monitor the outcome of all surgical procedures and are thus able to focus on the ageing surgeon whose morbidity and mortality

statistics are worse than those of his colleagues and take action to prevent harm to his patients.

Unfortunately, few hospitals in India’s private sector fall into this category. Most such hospitals would find it very difficult to comment adversely on senior surgeons who attract large numbers of patients to the financial benefit of the hospital. In the absence of a continuous surgical audit carried out impartially and without excluding any surgeon, howsoever eminent, how are failing ageing surgeons to be weeded out?

A commentator abroad noted that when asked, most surgeons preferred a peer review system to determine their competency, rather than an upper age limit for practising. Would a jury of peers who will decide whether the quality of surgery merits continuation or dismissal be acceptable in India? Would senior surgeons accept the verdict of such a jury, where the average age of its members is 50 years?

SUNIL K. PANDYA

Letter from Australia

Doctors face many ethical challenges in their daily work. One of these—how to behave in relation to the pharmaceutical industry—has generated widespread discussion in the Australian print and electronic media over the past year. A prominent plastic surgeon and former Australian of the Year was forced to admit that her decision to appear in an endorsement for the over-the-counter drug Nurofen, in exchange for a donation to a research foundation of which she is chairperson, was a regrettable mistake because of the negative perception it created. The Australian Medical Association’s ethics committee said that patients expect to receive unbiased, evidence-based advice from doctors, not recommendations that unthinkingly parrot marketing claims of a company, especially when money considerations may have influenced that advice. The Federal Government has now extended its pre-existing legislation that made it illegal for doctors to appear in advertisements endorsing prescription drugs to cover over-the-counter drugs as well.

Publicity was also generated when a Melbourne oncologist lodged an affidavit with the Federal Court in Sydney that alleged improper inducements made to doctors by drug companies as part of their marketing strategy. These included business class travel to attend international company-sponsored meetings (as a delegate, not a speaker), accommodation at lavish hotels and dinners at high quality restaurants. Code of Conduct Guidelines published by Medicines Australia, the Pharmaceutical Industry’s own watchdog, states that in relation to whether sponsorship is appropriate or not ‘the test is of being able to withstand public and professional scrutiny and the ability to conform to any relevant professional and community standards of ethics and good taste’. The Australian Competition and Consumer Commission (ACCC) considered that what the oncologist was describing breached these standards and it demanded that Medicines Australia should be made to publish

data on hospitality expenditure by all drug companies on a regular basis. Not surprisingly, this was vigorously opposed.

Rational prescribing is at the heart of good medical practice and in Australia, promotion of rational prescribing depends on a strong regulatory system operating at the community level, supplemented by the activities of increasingly powerful drug utilization committees in public hospitals and underpinned by the Code of Professional Behaviour published by each of the Royal Australasian Colleges.

Australia has a Pharmaceutical Benefits Scheme to subsidize the cost of prescription drugs and its computers are able to scrutinize the prescribing habits of all prescribers. Doctors whose prescribing is found to fall outside the certain percentiles are subjected to practice reviews and can be referred to an inquiry by the Professional Services Review. If evidence of serious unprofessional conduct emerges, the practitioner may be referred to the Medical Board for a hearing that can lead to disciplinary action, even withdrawal of medical registration. On a more positive note, the Federal Government funds the publication of *Australian Prescriber*, an excellent independent magazine about the rational use of medications. It is available online at www.australianprescriber.com.

The hospital where I work has a Drug Utilization Committee that has the power to decide which drugs can be prescribed within the hospital and to promulgate guidelines on how drugs are to be used throughout the hospital. An excellent innovation has been the production of small laminated cards carrying guidelines on antibiotics and drugs used in emergencies, which clip on behind the doctor’s identification badge for use at any time. Online clinical guidelines and an online hospital pharmacopoeia makes evidence-based drug information available at the fingertips of all staff and as well, to all doctors in the community via the internet.

The Royal Australasian College of Physicians' Code of Professional Behaviour says that 'the physician should not ask for nor accept any inducement, gift or hospitality which may affect or be seen to affect his/her judgement, and not offer such inducements to colleagues; not accept more than reasonable costs of travel and accommodation when invited to speak at a meeting . . . (and) be cautious when giving personal endorsement of new medical techniques or therapeutic goods.' Most physicians are happy to receive these recommendations because they clarify what has, for many, been a murky area.

In many developing countries, rational drug use is something to be aspired to and fought for. Reports from Indonesia describe a widespread practice, mainly in private clinics that serve the middle class, of prescribing powders that contain a cocktail of drugs for treating childhood illnesses. One mother of a child (23 months old) provided a prescription for a powder containing no less than 23 different drugs. A survey reported in the *Jakarta Post* on 27 January 2006 showed that 70% of Indonesian parents gave their young children more than 4 drugs at once to treat common illnesses and in 35% of cases, 5–7 drugs were given. Eighty-five per cent of powders examined contained antibiotics and many contained antituberculous drugs, antihistamines, bronchodilators, even corticosteroids. Attempts by concerned doctors to warn the public of risks such as the spread of antibiotic resistant organisms in the community not only fall largely on deaf ears, but attract fierce criticism from other

doctors whose income depends on being able to service a large clientele. Needless to say, research studies to document the adverse effects of irrational drug use in Indonesia are few and far between, but awareness of the problem is growing, thanks largely to the efforts of Jakarta-based paediatrician, Dr Purnamawati Pujiarto. Dr Purnamawati has been supported by WHO to develop the Health Education for Parents Program (HEPP), which aims to empower consumers of healthcare. It has, so far, been very successful. It is interesting that in Indonesia, the group most at risk from irrational drug use is the middle class. The poor, who attend government-run community health centres known as *puskesmas*, receive evidence-based treatment according to protocols.

It was most heartening to hear that the Indonesian Paediatric Society has taken a brave stance to reduce the involvement of drug companies at scientific conferences. All promotional material displayed will, from now on, have to be evidence-based and displays will only be allowed in the exhibition hall. A selective approach to which drugs and products can be promoted will be practised and only those whose use is supported by strong evidence will be admitted. The promotion of infant formulas will be banned. Sessions debating controversial subjects will be encouraged and conference organizers will defend their independence, even if it means holding meetings in less luxurious venues than before.

GARRY WARNE

Letter from Sri Lanka

WORLD'S FIRST REPORTED OUTBREAK OF IATROGENIC FUNGAL MENINGITIS

Five women who underwent a caesarean section under spinal anaesthesia between 21 June and 17 July 2005 in two maternity hospitals of Colombo's premier teaching hospital complex developed *Aspergillus fumigatus* meningitis. Surgery and spinal anaesthesia had been performed by different teams in several operating theatre locations by personnel who were all properly qualified and adhered to internationally accepted guidelines for sterility and surgical procedure. They had used bupivacaine and fentanyl as the spinal anaesthetic agents. Three infected women died; the fourth one recovered completely, and the fifth woman left the hospital with hearing and visual impairment after 60 days of intensive care.

The average incubation period of the infection was 11 days. Remittent fever persisting in spite of empirical broad-spectrum intravenous antibiotics, excruciating headache, nuchal rigidity, papilloedema, lateral rectus palsy and cerebral infarction were the main clinical features. The cerebrospinal fluid showed pleocytosis (neutrophils and lymphocytes), and the detailed microbiological, clinical and epidemiological investigations of the outbreak have now been reported.^{1,2}

After examining over 200 operating theatre staff and environment samples, and over 1000 samples of ampoules,

disposable needles, plastic syringes, cannulas, spinal needles, etc. in their supposedly sterile and visually intact packing, 43 syringes and two pairs of gloves were found to be positive for *Aspergillus fumigatus*. The authors² found that the three well maintained warehouses of the Ministry of Health were full of tsunami donations, and regular Ministry procurements were consigned—most inadvisedly, as things turned out—to an old, dusty, musty and humid warehouse with leaky roofs. They opine that these dreadful storage conditions lasting for over 6 months was the most plausible explanation for minute cracks in the packaging and fungal contamination. Some unavoidable delay in diagnosing the fungal aetiology and in obtaining the specific antifungal drugs probably led to the death of 3 patients.

Sri Lanka suffered its worst natural disaster in recorded history on 26 December 2004 from the tsunami, which caused over 40 000 deaths, left at least 300 000 homeless or displaced, along with destruction of buildings and roads on a massive scale. Donations of uncatalogued medical supplies and devices then poured into the country over the next several months, the vast majority of them unnecessary or inappropriate, and a significant proportion, frankly unconscionable 'dumping'. Regular storage facilities were completely overwhelmed, and this outbreak of fungal meningitis in 5 previously healthy women was probably the most tragic consequence of an

uncontrolled deluge of medical supplies. The well known adverse effects of permitting the unplanned entry of donated medical supplies during natural or man-made disasters were blithely disregarded in the chaotic aftermath of the tsunami.

EPIDEMIC OF CHIKUNGUNYA FEVER

An epidemic of chikungunya fever (CF) swept across the island starting around mid-October 2006. Up to the end of January 2007, the Health Ministry Epidemiology Unit received over 37 000 reports of suspected cases. Only about 1050 blood samples were tested during this period, and a positive serological diagnosis was reported in 680 of them.

The reports of suspected cases were only from admissions to allopathic hospitals, so that the vast numbers who had mild disease and took outpatient treatment from hospitals, general practitioners or traditional medical (e.g. Ayurveda) practitioners, or relied on home remedies, were not included. Nearly all major hospitals in the public and private sectors were overflowing

with CF patients, and many had to be content with accommodation on trolleys and beds placed in hospital corridors and all available nooks and corners. The local population was largely non-immune, having experienced the last epidemic of CF in the late 1960s. Although the symptoms of CF are often disabling, and some sequelae such as myalgia, arthralgia and joint swelling may last for several weeks after the fever subsides, mortality from CF is extremely low. As of now, the epidemic is on the wane.

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