Liver transplantation in Australia

In the United States, a means has been in place for several years to assist the transition of new treatment technologies from the status of experimental to "service". The mechanism is a forum called the Consensus Development Conference, at which the proponents and the critics of the treatment in question have their say. Adjudication of the merits of these arguments is by a panel of experts, consumer advocates, and health-care planners. The meetings last for two or three days, are open to the public, and their proceedings are published eventually.

On June 20–23, 1983, liver transplantation was subjected to this evaluation in Bethesda, Maryland, at the suggestion of the Surgeon General of the United States, Dr C. Everett Koop. The conclusions were unequivocal, as based on evidence and experience in the United States and Europe. Liver transplantation was found unanimously to be an effective treatment for many end-stage hepatic diseases, and under reasonably definable conditions. In fact, liver replacement was the only kind of therapy which was not a waste of resources in some circumstances. The proceedings of this Consensus Development Conference were published in a supplement to *Hepatology* in January, 1984,[1] and its conclusions have been accepted without change by the Organ Transplant Council of the American Medical Association.

In view of the foregoing events, the bitterly critical nature of an editorial[2] about liver transplantation in *The Medical Journal of Australia* was difficult to understand since it was written more than a year after the Consensus Development Conference, and nine months after the deliberations of that conference had become known widely. Nevertheless, two vital and successful liver transplantation programmes have now sprung up in Australia — one in Sydney and the other in Brisbane — and their initial reports are published in this issue of the Journal (page 372 and page 380).

In both cases, a remarkable degree of thought and preparation preceded the initial trials. The leader of the Sydney programme, Professor Ross Shiel, was one of the world pioneers in renal transplantation, and one of the earliest contributors to the then fledgling procedure of liver transplantation 20 years previously. Several members of the Queensland team had spent extended periods (as long as two years) at the University of Pittsburgh liver transplant centre.

When liver transplantation was first performed successfully in 1967, the results were unpredictable with an overwhelming mortality in the first postoperative year.[3] Since the introduction of cyclosporin A–corticosteroid therapy in 1980, the survival has more than tripled.[4] However, even from the earliest cases, it was learned that a relatively normal life could be restored to victims of end-stage liver disease. The longest surviving patient in the world today was four years old at the time of her transplantation. Now in her 18th postoperative year, she is married to a US marine and lives in Japan. Many survivors of the earlier era have now lived beyond 10 years.[5] A substantial number have become parents of their own children. The long-term durability of functioning liver grafts has seemed to be greater than that of functioning cadaver kidney transplants.

In the previous editorial in this Journal,[2] it was suggested that high-intensity care, such as liver transplantation, for hopelessly-ill patients was not only costly, but that it was inhumane when all that was achieved was the prolongation of painful dying. This possibility is so important that it deserves thoughtful examination. However, study of the long-surviving recipients of liver grafts has demonstrated repeatedly that complete rehabilitation can be achieved in the majority of cases.[5,6]

It has been said that society and its institutions are judged by the way that they treat those who cannot defend themselves, as exemplified by the mortally-ill. In the past, what could be done for hopelessly-ill patients was all too often non-specific. Transplantation has changed this. With liver-grafting procedures, the high cost of treatment often has been decried by critics, who have had no objection to the expensive care that is required for patients who become invalids and hospital-bound by their hepatic disease. Their objections are to the only treatment that is capable of the liberation of these patients from hospital life, of their restoration to life in society, and of putting an end to a continuous accrual of expenses down a therapeutic cul-de-sac.

It is conceivable, but highly unlikely, that some day society will decide that no patient will be treated who is suffering from liver disease, or from diseases of certain other organ systems, such as the heart or kidney. If so, the argument that is cited in the preceding paragraph will have great force, and physicians (those who are left) will want to determine the cheapest way to exercise what will have become a priestly, not a therapeutic, function. Until then, the proper first decision by those who serve society will be *whether* treatment should be carried out. If the answer is "yes", the appropriate second question will be: "What is the best way?". Then, what will be purchased per health-care dollar will be real, not symbolic.

Developments in transplantation and artificial organ technology have changed forever the philosophy by which organ-defined specialties, such as nephrology, hepatology and cardiology, are practised. Until recently, what could be offered to victims of vital-organ failure was a rearguard approach, with diet, medicines or surgical procedures, that was designed to extract the last moment of life-supporting function from the failing organ. Now — and for the first time in human history — the breath-taking possibility has emerged, when all else fails, of starting over with an organ graft or with a manufactured organ.

Failure to take advantage of these developments, and failure to exploit such new possibilities, is like giving birth to a beautiful child and then trying to starve it for specious reasons so that it will not threaten the food supply. The Australian liver transplant programmes are in good hands. For a country which already has such exceptional standards in health care as Australia, the following message will be superfluous. But for what it is worth, your American cousins wish you good luck.

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2. Brass A. Surgery runs amok. *Med J Aust* 1984; 141: 330.
3. Starzl TE, Koep LJ, Halgrimson CG, et al. Fifteen years of clinical liver transplantation. *Gastroenterology* 1979; 77: 375-388.
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