- ⁶ Nielsen SL. Raynaud phenomena and finger systolic pressure during cooling. Scand J Clin Lab Invest 1978;38:765-70.

 Lewis T. The pathological changes in the arteries supplying the fingers in
- warm-handed people and in cases of so-called Raynaud's disease. Clinical Science 1938;3:287-319.
- 8 Sharp GC, Irvin WS, Tan EM, Gould RG, Holman HR. Mixed connective tissue disease—an apparently distinct rheumatic disease syndrome associated with a specific antibody to an extractable nuclear antigen (ENA). Am J Med 1972;52:148-59.

 ⁹ Campbell PM, LeRoy EC. Pathogenesis of systemic sclerosis: a vascular
- hypothesis. Semin Arthritic Rheum 1975; iv:351-68.
- 10 Burton AC. The range and variability of blood flow in human fingers and vasomotor regulation of body temperature. Am J Physiol 1939;137:
- ¹¹ Peacock JH. The effect of changes in local temperature on the blood flows of the normal hand, primary Raynaud's disease and primary acrocyanosis. Clinical Science 1960;19:505-12.
- ¹² Downey JA, LeRoy EC, Miller JM, Darling RC. Thermoregulation and Raynaud's phenomenon. Clinical Science 1971;40:211-9.
- 13 Halpern A, Kuhn PH, Shaftel HE, et al. Raynaud's disease, Raynaud's phenomenon and serotonin. Angiology 1960;11:151-67.
- ¹⁴ Moncada S, Vane JR. Prostacyclin formation and effects. In: Roberts SM, Scheinmann F, eds. Chemistry, biochemistry and pharmacological activity of prostanoids. Oxford: Pergamon Press, 1979.
- ¹⁵ Lewis T. Experiments relating to the peripheral mechanism involved in spasmodic arrest of the circulation in the fingers. A variety of Raynaud's disease. Heart 1929;15:7-101.

 16 Lewis T, Landis EM. Observations upon the vascular mechanism in
- acrocvanosis. Heart 1930;15:229-46.
- ¹⁷ Dusting GJ, Moncada S, Vane JR. Vascular actions of arachidonic acid and its metabolites in perfused mesenteric and femoral beds of the dog. Eur J Pharmacol 1978;49:65-72.
- ¹⁸ Moncada S, Higgs EA, Vane JR. Human arterial and venous tissues generate prostacyclin (prostaglandin X)—a potent inhibitor of platelet aggregation. Lancet 1977;i:18-20.
- 19 Moncada S, Gryglewski R, Bunting S, Vane JR. An enzyme isolated from arteries transforms prostaglandin endoperoxides to an unstable substance
- that inhibits platelet aggregation. Nature 1976;263:663-5.

 20 Pickering GW. Vascular spasm. Lancet 1951;ii:845-50.

 21 Pringle R, Walder DN, Weaver JPA. Blood viscosity and Raynaud's disease. Lancet 1965;i:1086-8.
- ²² Goyle KB, Dormandy JA. Abnormal viscosity in Raynaud's phenomenon. Lancet 1976;i:1317-8.

An appalling Panorama

The Panorama television programme on brain death (BBC 1, Monday 13 October) was a disgrace. Its inevitable effect will be to alarm the relatives of dying or dead patients and dissuade them from agreeing to the kidneys being removed for transplantation. That damage would be done to the transplant programme was made clear to the BBC before the programme was screened: Sir Ian Trethowan was left in no doubt that patients with endstage renal failure will die as a result. Such serious effects could be justified only by clear evidence that the programme raised new issues of grave public importance. No such evidence was presented. Detailed criticisms by a neurologist appear at p 1064.

Panorama's film centred on four American patients said to have been declared brain dead who subsequently recovered. Advance publicity on BBC radio and in the Radio Times was alarmist, with statements such as "transplant surgeons have got their colleagues into a fix, because they've put them under pressure to diagnose death in the potential donor sooner than they want to, perhaps sooner sometimes than it is safe to do so." The programme itself took a sensationalist approach with graphic descriptions by patients of their being conscious while they were assumed dead. In no case were the criteria for certifying brain death set out by the Conference of Medical Royal Colleges and their Faculties^{1 2} satisfied or even approximated. The first patient was "thrashing about" at the time he was pronounced dead: he was apparently breathing spontaneously when seen to be alive by the transplant surgeon. The second had muscle-relaxant apnoea (the British criteria specifically warn against this mistake). The third was a neonate,

and the fourth, who had taken a massive drug overdose, was apparently declared "dead" in the ambulance before she arrived at the hospital. Only one of these four had even been considered as a transplant donor.

Little was said in the programme of the safeguards built into the British system for certifying brain death—in particular, that all the tests for absence of the brain stem reflexes should be repeated later. Instead, the report argued that without a mandatory electroencephalogram the British criteria are unsafe, basing much of its evidence on a collaborative study³ carried out in the United States in the early 1970s. Whether or not an electroencephalogram would strengthen the British criteria is a valid topic of medical controversy and one that could quite reasonably be discussed in a radio or TV programme. No attempt was made to mount a reasonable discussion of that point: the two British experts interviewed were cut off in mid sentence. Doctors are not infallible; the diagnosis of death is sometimes made hurriedly; and—as in any human activity from piloting airliners to felling treesmistakes are possible. The Royal Colleges' criteria are designed to make such mistakes as close to impossible as human fallibility allows. The Panorama team produced no evidencenot even a hint-that the British system produced anything like the catalogue of disasters they filmed in the United States. In Britain most kidneys are obtained from patients with subarachnoid haemorrhage or head injury-conditions in which the electroencephalogram is considered unnecessary by other countries with good quality neurologists.4 Clearly the British doctors cannot prove they are infallible: but what justification had Panorama for questioning the integrity of British doctors in such a snide, aggressive way?

The BMJ has criticised television in the past, and the medical profession has met with the BBC to try to agree a basis for reasonable co-operation. Panorama went its own way. We suggested two years ago that the prime question should be, "Is this programme likely to confuse, worry, or misinform patients?" This programme seemed designed to cause the maximum disquiet. The reporter interviewed a whole galaxy of American and three British doctors, cutting and editing to serve his own purposes. Asked his opinion about the value of the electroencephalogram in determining brain death, the British neurologist got as far as, "That is always a very difficult point," and was then cut. Little wonder that the doctors concerned are aggrieved.5

In a single night Panorama has virtually destroyed all the efforts of the past two years to re-establish trust between television and the medical profession. But it is not only medical amour propre that will suffer. By the end of this year the transplant surgeons will be able to count the patients denied treatment for endstage renal failure. Already one unit has found-for the first time for many months-that relatives are refusing to consent to organs being removed. When, as is inevitable, patients die the BBC will have those deaths on its conscience.

- ¹ Conference of Medical Royal Colleges and their Faculties in the United Kingdom. Diagnosis of brain death. Statement issued by the honorary secretary of the Conference of Medical Royal Colleges and their Faculties in the United Kingdom on 11 October 1976. Br Med J 1976; ii:1187-8.
- ² Conference of Medical Royal Colleges and their Faculties in the United Kingdom. Diagnosis of death. Memorandum issued by the honorary secretary of the Conference of Medical Royal Colleges and their Faculties in the United Kingdom on 15 January 1979. Br Med J 1979;i:332.
- ³ Walker AE, Diamond EL, Moseley J. The neuropathological findings in
- irreversible coma. J Neuropathol Exp Neurol 1975;34:295-323.

 Kaste M, Hillbom M, Palo J. Diagnosis and management of brain death. Br Med J 1979;i:525-7.
 ⁵ Ferriman A. Transplant allegations on TV condemned. Times 1980 Oct 13:
- 4 (col 7).