fessions should be aware of this risk and that patients with joint replacements should be added to the list of those requiring prophylactic antibiotic therapy before dental treatment.

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- ¹ Okell, C C, and Elliott, S D, *Lancet*, 1935, 2, 869.
² Rubin, R, Salvati, E A, and Lewis, R, *Oral Surgery*, 1976, 41, 18.

SIR,—We support the general conclusions in your leading article on late infection of hip prostheses (23 July, p 213) but suggest that they might be extended to include prostheses at all sites, especially the knee.

In a recent review¹ of 100 hinge arthroplasties of the knee we found that infection could occur up to five years after apparently successful surgery. The infections arose spontaneously and could not be ascribed to factors such as steroid treatment or post-operative wound sepsis. One patient, five years after receiving a Walldius prosthesis, developed infection of it with *Salmonella typhimurium*, which was also grown on blood culture. She had no symptoms otherwise of salmonella infection.²

There is, to our knowledge, no evidence analogous to that in endocarditis that prostheses can be infected with organisms from the mouth. It does seem appropriate, however, to consider whether the presence of a joint prosthesis may be an indication for antibiotic cover during an incidental bacterial infection and also prophylactically before performing any procedure likely to result in bacteraemia.

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- ¹ Webley, M, *et al.* In preparation.
² Rae, S, *et al.*, *Rheumatology and Rehabilitation*. In press.

Comparison of treatment with fast neutrons and photons

SIR,—Professor H A S van den Brenk's comparison (16 July, p 188) of our trial of neutrons against photons (25 June, p 1642) with his own trial of hyperbaric oxygen as an adjuvant to radiotherapy is most interesting. We agree with his suggestion that controlled trials of different fractionation schemes with conventional radiotherapy should be undertaken. It is impossible to assess properly the value of a new form of treatment when we are not certain of the best way of giving the conventional treatment.

We would like, however, to correct his statement that 14% of our neutron-treated patients incurred radionecrosis of the normal tissue. This was the total incidence of complications (10 patients), but in only five were the tissues necrosed. In two of these patients the eyes were surrounded by tumour and received the full dose. In two others the cervical cord and in one the larynx received unusually high doses because of the physical characteristics of the beam and the sites of the tumours. In the remaining five patients the complications were due to fibrosis which in most other parts of the body would probably have caused no symptoms but in the region of

the oropharynx and larynx caused aspiration and stridor. Such complications would be less frequent in the treatment of smaller tumours and if more penetrating beams of neutrons were available.

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Evolution of poliovirus since introduction of attenuated vaccine

SIR,—We need to know how many cases of poliomyelitis are caused by vaccine-derived poliovirus and how many by wild. We need to know whether paralysis is a more or less frequent sequel to invasion of the central nervous system by poliovirus than it was before the introduction of vaccination with attenuated virus. Unfortunately Dr Yvonne Cossart (25 June, p 1621) has not clarified a very difficult subject.

Your accompanying leading article (p 1617) states that "there are fewer cases of paralysis in those with neurological disease." Dr Cossart compares a paralytic rate of 66% in 1957 with less than 50% in 1965-72. It is extremely difficult to compare rates; before 1960 cases were mainly reported on clinical grounds, but with the greatly reduced number of poliomyelitis cases since 1963 routine virological investigations are now made not only on all suspected cases but on other patients as well. Miller *et al*¹ say that the "periods 1962-4 and 1965-8 cannot be compared, owing to the more intensive search for possible cases in the latter period." The high rate of 96% for virus isolation from non-paralytic cases in 1965-8 was because poliomyelitis was diagnosed after the isolation of poliovirus from many cases previously given diagnoses other than poliomyelitis. Before 1960 many cases of aseptic meningitis and encephalitis without paralysis were not included in the poliomyelitis figures. It may be true that the paralytic rate is lower, but Dr Cossart does not present the evidence.

Dr Cossart says that there has been a noticeable decline in the overall number and proportion of wild strains isolated from patients with neurological disease. Her figures

do not correspond with those published by staff from the same laboratory for the same period 1965-8 or with the provisional figures from the same laboratory for 1969-72 (Table I). Because virus is not isolated from all cases non-paralytic cases are over-represented (see above) in virus strains used for marker tests (Table I). Moreover, Dr Cossart tested only 116 of 178 typed strains. Those selected did not constitute a constant proportion for either type or period—for example, for Type 2 16 out of 27 for 1965-8 and all 18 for 1969-72. For paralytic cases only, both vaccine associated and epidemic cases, Miller *et al* found that 64% of strains were wild, whereas Dr Cossart, including patients with neurological disease, found that only 31% were wild (Table II). The two results from the same material cannot be compared because Dr Cossart does not define her categories. Similarly for 1969-72 it is not clear whether all the paralytic cases (Table I) or none were tested (Table II). Before any conclusions can be drawn the Public Health Laboratory Service must provide an authoritative review of all poliomyelitis cases and poliovirus isolations from 1965 to 1976.

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- ¹ Miller, D L, Reid, D, and Diamond, J R, *Public Health London*, 1970, 84, 265.

- ² Public Health Laboratory Services, *Communicable Disease Reports 1969-72*. London, HMSO.

Running away from accidents

SIR,—It is reported that one of Her Majesty's Secretaries of State, medically qualified, would run away from a road accident casualty. Such a comment or act is surely deplorable but, worse, can only discourage the staff of road accident emergency care schemes, who are so obviously of great value in minimising morbidity and mortality at very low costs indeed. If politicians can only run from people in trouble let them not speak their shame. May our Association reaffirm its intent not to leave casualties unattended.

First aid is rarely taught in schools and medical schools but can be learnt from the three voluntary societies by any doctor who feels he is insufficiently skilled. Our Government should be deciding how to encourage the population towards good health, how they

TABLE I—Cases of poliomyelitis in England and Wales 1965-72

Source	1965-8			1969-72		
	Paralytic	Non-paralytic	Total	Paralytic	Non-paralytic	Total
Miller <i>et al</i> ¹	91	78	169	—	—	—
Miller <i>et al</i> ¹	56	64	120	—	—	—
Cossart	51	84	135	11	32	43
PHLS ²	—	—	—	39	73	112

TABLE II—Results of genetic marker tests on strains of poliovirus from England and Wales

	No of strains				% Wild
	Total	Vaccine-like	Intermediate	Wild	
1965-8					
Miller <i>et al</i> ¹ : paralytic cases	42	10	5	27	64
Cossart: "neurological disease"	84	35	23	26	31
1969-72					
Cossart: "neurological disease"	32	22	7	3	