immunity was found in our subsequent studies involving other groups of native and immigrant children in this area and of other Scottish mainland and island populations.[2 3]

The lesson remains, however, that immunity is generally less than satisfactory. Antibody surveys are essential monitors of susceptibility; the unacceptable alternative is to wait for the appearance of cases to signal gaps in immunity.

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[1] Reid, D, *et al*, *Lancet*, 1973, **2**, 899.
[2] Bell, E J, *Communicable Diseases (Scotland) Weekly Report*, 1974, No 38, p v.
[3] Bell, E J, Reid, D, and Grist, N R, *Abstracts of the XV Symposium of the European Association against Poliomyelitis and Other Virus Diseases*, 1975, p 6.

Tennis elbow and cervical spine

SIR,—I was interested to read the paper by Dr C F Murray-Leslie and Professor V Wright on the relationship between carpal tunnel syndrome, humeral epicondylitis, and the cervical spine (12 June, p 1439). The authors may not be aware of a recent paper on tennis elbow and the cervical spine.[1] In that paper it was reported that treatment directed to the cervical spine succeeded in giving relief, whereas direct treatment to the elbow had failed.

It is possible that patients who present with the combined signs and symptoms of carpal tunnel syndrome, tennis elbow, and periarthritis of the shoulder, sometimes with bilateral involvement, are suffering from the reflex sympathetic dystrophy syndrome.[2]

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[1] Gunn, C C, and Milbrandt, W E, *Canadian Medical Association Journal*, 1976, **114**, 803.
[2] *Lancet*, 1976, **1**, 1226.

Out-of-hours work in chemical pathology

SIR,—Organisation and payment for out-of-hours work is a continuing problem, separate from that of the need to deal with emergencies during the normal laboratory working day.

The work load over one recent weekend in this department was:

Saturday 1200-Sunday 0900: 38 request forms, 135 tests
Sunday 0900-Monday 0900: 32 request forms, 125 tests
Monday 1700-Tuesday 0900: 11 request forms, 29 tests

This was a lighter-than-average load, as over those days the bed occupancy rate was about 75% instead of the usual 85%. The analyses covered the usual range of tests and the cost in overtime payments to analysts was about £200.

The patients involved were under the care of 22 different clinicians. All the house staff were experienced: they were questioned within a day or two about every investigation and the tests could be divided into groups: (1) (*a*) Ordinary investigations (which may or may not have been justified) that could have been requested within normal working hours, 118 tests; (*b*) investigations that could never have given the information that was sought, 10 tests. (2) True emergency—for example, patient admitted in coma, 62 tests. (3) Justifiable out-of-hours work but not emergency—for example, local surgical policy is that all patients on intravenous infusion have daily plasma electrolyte determinations, 99 tests.

Group 1, almost half of the work, could largely have been eliminated from the out-of-hours work load by consultation between the junior clinical staff and the resident pathologists and by firmer supervision and criticism of investigations by the clinical consultants. Our system would work well, at reasonable cost, if we only had to deal with group 2 tests, the genuine random emergency. Group 3 sets a problem. Because modern medicine requires out-of-hours laboratory work at all times the laboratory staffing structure must be organised to cope with it. Patients are ill and do need investigating not only during the traditional so-called social working hours; and we now even have to include days before or after bank holidays as emergency periods. Nurses on duty at night or weekends are not paid per dressing changed.

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Carpal tunnel syndrome and tennis elbow

SIR,—Dr C F Murray-Leslie and Professor V Wright (12 June, p 1439) report on the incidence of tennis elbow in patients with proved carpal tunnel syndrome and on the radiological changes in the cervical spine. They mention in passing an association with "non-rheumatoid" tenosynovitis of the wrist and hand.

Tennis elbow is an imprecise pathological diagnosis, with probably more than one aetiology, but the connection between this condition and carpal tunnel syndrome raises interesting speculation relating to nerve compression in the upper limb. It is my impression, though I have no supporting figures, that ulnar neuritis at the elbow is often found to occur in patients who have been treated for carpal tunnel syndrome. Ulnar neuritis is a clear compression lesion, which Osborne[1] has shown to be capable of relief by neurolysis without anterior transposition. Capener[2] demonstrated the vulnerability of the posterior interosseous nerve in the forearm and suggested its relationship to tennis elbow. Roles and Maudsley[3] have reported the successful treatment of resistant tennis elbow (radial tunnel syndrome) by decompression, and the cases that I have treated this way have been equally successful. Since most patients with tennis elbow respond to conservative treatment the requirements for surgery are relatively infrequent.

One explanation of the findings of Dr Murray-Leslie and Professor Wright is that the connective tissue changes to which they refer can produce their effect by causing compression of the median nerve at the wrist, the ulnar nerve at the elbow, or the posterior interosseous nerve between the front of the radial head and the aponeurotic band in the supinator muscle, even though the respective clinical effects vary greatly as between pain, paraesthesiae, and neurological deficit. It must then be determined whether the fault lies partly within the nerve (lowered threshold to symptoms) or entirely outside it. Detailed electromyographic studies of the radial nerve in tennis elbow might indicate whether the nerve is involved in the great majority of cases in which surgery is not needed. It would be satisfying to identify a common factor in these lesions in the upper limb which so often coexist, and the paper of Dr Murray-Leslie and Professor Wright makes a valuable contribution.

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[1] Osborne, G V, *Journal of Bone and Joint Surgery*, 1957, **39B**, 782.
[2] Capener, N, *Journal of Bone and Joint Surgery*, 1966, **48B**, 770.
[3] Roles, N C, and Maudsley, R H, *Journal of Bone and Joint Surgery*, 1972, **54B**, 499.

A question of conscience

SIR,—I think Dr R Salm (26 June, p 1593) has got his thinking a little out of focus. The "will of the people, as expressed through Parliament," does not make abortion right any more than bashing old ladies on the head would be if made "legal" in this way. Moreover, for those of us who oppose abortion it is more than a matter of conscience. It is a very positive conviction that abortion is wrong.

As always, those who stand by their principles are liable to discrimination. However, it is a pity that more anti-abortion gynaecologists are not appointed. More time and attention might then be given to real and more urgent gynaecological morbidity.

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SIR,—May I endorse Dr R Salm's cogent reply (26 June, p 1593) to Mr R Walley's article (12 June, p 1456) on a question of conscience in regard to performing abortions? While I respect Mr Walley's sincerity, like Dr Salm I question his logic. I have in mind in particular his reference to the conscientious objector's exemption from service in the armed Forces in war. For there the comparison with Mr Walley's experience breaks down. To be analogous it would mean that the conscientious objector could have the privilege of holding a commission—somewhat similar to a consultancy—but reserving the right not to shoot at the enemy when in action.

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SIR,—I hope you will permit me to correct the inaccuracies in the letter from Dr R Salm (26 June, p 1593). He writes: "The will of the people as expressed through Parliament now lays down that certain abortion facilities shall be provided in the NHS." Parliament lays down no such thing. The Abortion Act of 1967 lays down that where certain conditions are complied with a doctor who performs an abortion will not have committed an illegal act. The Act, as David Steel repeated, is permissive not mandatory.

The statement that the Abortion Act is mandatory and not permissive is constantly