is professional naivety. Who covered for the sister when she inevitably needed to take annual leave, let alone a night off?

Finally, a though different localities will have their own particular solutions for the provision of terminal care, we believe that the establishment of a health care planning team and the appointment of two Macmillan nurses in isolation is no substitute for the cohesion and leadership which the authors point out was lacking at Charing Cross. It is not only the nurses but also the doctor, as team leader, who needs hospice training.

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Cosmetic and reconstructive surgery of the breast

SIR,—I have enjoyed reading the series discussing the main topics in plastic surgery. Mr C M Ward, dealing with breast reconstruction (4 May, p 1337), described two principal ways of reconstruction—namely, the insertion of a silicon prosthesis and the use of musculocutaneous flaps. He failed to mention the tissue expander. In most plastic surgery units in Israel, as well as in other parts of the world, expansion has become the most common method of breast reconstruction.

The expander is a silicon container placed under skin or pectoral muscle with a device permitting serial postoperative saline injections into it. The purpose of expansion is to get ample soft tissue under which the final prosthesis can be inserted without tension. The injections are performed within several weeks, after which the expander is replaced by a regular prosthesis. The breast achieved is thus more natural looking. The expander may be used after simple and after most modified radical mastectomies, but an expander should not be placed under very tight skin or skin severely damaged by irradiation if there is no muscle under it.

Since most mastectomies today are less radical, most of the reconstructions can be performed with expansion. The operation is simple, short, and avoids disfiguring other parts of the body. The expander can even be inserted during the ablation procedure. We also use expansion in women in whom a few years ago we would have directly inserted a silicon prosthesis.

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Dexamethasone suppression test as a simple measure of stress?

SIR,—We read with interest the hypothesis of Dr Mellsop and others that the dexamethasone suppression test is a non-specific measure of stress in a variety of psychiatric and physical illnesses (15 June, p 1804). While we agree that a positive dexamethasone suppression test may be associated with stress, evidence for its being a measure of stress is as yet inadequate. Such evidence requires validation with other indicators of stress.

Several other neuroendocrine findings hitherto described as being biological markers of depressive illness are similarly stress related. A blunted thyrotrophin response to thyrotrophin releasing hormone, seen in diverse physical and psychiatric

illnesses, may be related to the stress induced increases in circulating thyroid hormones.1 Reduced hypoglycaemic growth hormone and catecholamine responses to insulin challenge in depression may be related to hypercortisolism (Keshayan MS, et al. International Society of Psychoneuroendocrinology, Vienna, 1984). Raised B endorphin concentrations, reported to occur in depression and chronic pain states, may be related to the corelease of this hormone with adrenocorticotrophin in response to stress.² Studies of these and other stress responsive hormones such as prolactin and gonadal steroids, or, in other words, "endocrine profiles" of disease states in relation to several clinical variables reflecting the degree of stress, may help validate the possible utility of the dexamethasone suppression test as one of the several "measures of stress."

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- 1 Calloway SP, Dolan RJ, Fonagy P, Desouza VFA, Wakeling A. Endocrine changes and clinical profiles in depression—II. The thyrotrophin releasing hormone test. *Psychological Medicine* 1984-14-759-65
- 2 Atkinson JH, Kremer EF, Risch SC, et al. Plasma measures of beta-endorphin and beta-lipoprotein like immunoreactivity in chronic pain syndromes and psychiatric subjects Psychiatry Research 1983;9:319-27.

Chest physiotherapy in primary pneumonia

SIR,—The paper by Dr Sven Britton and others (8 June, p 1703) is important. Their conclusion—that chest physiotherapy is at best useless in patients with primary infectious pneumonia—is as true for children as it is for adults.

Because of my concern at the disturbance caused by chest physiotherapy to children with acute lower respiratory tract infections and the unlikelihood of it being of benefit in the acute stage of the disease, in the winter of 1976 my then registrar, Dr John M Hales, at the Royal Alexandra Hospital for Children in Sydney, Australia, made a prospective study of 55 children with uncomplicated acute respiratory tract infections, 34 of whom received physiotherapy and 21 of whom did not. Nine children were diagnosed as having bronchitis, 20 bronchiolitis, and 26 pneumonia.

As each doctor had his own admitting day, some ordering physiotherapy for all children with an acute lower respiratory tract infection and some not, patients were not assigned to the group receiving or not receiving physiotherapy but were merely observed during their stay in hospital and an analysis of the observations made later.

The two groups were similar in age and sex distribution and in the duration of symptoms before admission. Apart from physiotherapy, treatment was similar including the frequency with which antibiotics and bronchodilators were prescribed.

When ordered physiotherapy was given two or three times a day with five to 15 minutes' percussion followed by pharyngeal suction. No differences were found in the duration of cough or coryza or in the persistence of wheeze, rhonchi, or rales. Those who received physiotherapy had a mean stay in hospital of nine days and those who had no physiotherapy of seven days. The difference was not significant, but it was greater in those who had bronchiolitis. Dr Hales (to whom I am grateful for giving permission to report his study) concluded that no difference existed in the course or outcome of the illness between those who

received and those who did not receive physiotherapy.

The value of chest physiotherapy in patients with, for example, cystic fibrosis is great. It does not, however, have a place in the child with normal lungs who develops an acute lower respiratory tract infection.

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Ulcerative colitis complicated by complete heart block

SIR,—We feel that N I Jowett and A C Burden (15 June, p 1788) have raised an interesting issue. We have two male patients with inflammatory bowel disease who have presented with cardiac conduction abnormalities in the last year. The first is 45 and presented in 1971 with ulcerative colitis associated with sacroiliitis, arthropathy, iritis, and erythema nodosum. He was seronegative, HLA B27 positive. By 1979 he was free of symptoms on salazopyrine and was reviewed yearly. In June 1984 he presented with recurrent arthropathy and collapse due to complete atrioventricular dissociation, which resolved to first degree heart block with steroids. He had a pericardial rub and a small pericardial effusion but no evidence of infarction. His bundle studies were not obtained. Colonoscopy shortly after this showed only mild colitis.

The second patient is 49 and was found to have colitis in 1973 in another unit. He was treated with salazopyrine and was free of symptoms when lost to follow up in 1977. In July 1984 he presented with palpitations and had three episodes of sinus arrest, one of which required resuscitation. There was no evidence of infarction. Cardiac monitoring showed frequent episodes of sinus arrest, lasting up to 10 seconds, interspersed with episodes of supraventricular tachycardia of up to 160 beats/min. In view of this a permanent pacemaker was fitted. Sigmoidoscopy showed a distal proctocolitis. Initially the patient did not mention the colitis even though specifically asked about it.

Ours is not a specialist unit and we think that these cases probably represent the tip of an iceberg of cardiac conduction abnormalities in patients with inflammatory bowel disease. These sort of problems may well be as common as the pulmonary complications of inflammatory bowel disease, which at one stage were thought not to occur. Our first case remains a problem of management since we are unsure whether prophylactic permanent pacing should be offered to an otherwise very fit patient.

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 Heatley RV, Thomas P, Prokipchuk EJ, Gauldie J, Sieniewicz DJ, Bienenstock J. Pulmonary function abnormalities in patients with inflammatory bowel disease. Q J Med 1982;203: 1241-50.

Senior registrar applications in general surgery in 1982 and 1985

SIR,—Tremendous difficulties face general surgical trainees as they climb the career ladder. There are too many registrars for too few jobs, with the greatest bottleneck at the middle grade to senior registrar hurdle. This is not a new observation, but accurate data relating to the problem are difficult to acquire, particularly on trends from year to year.