large enough to be able to guarantee prompt return of work to the firms supplying the work. In a small unit of this type this would be quite inconsistent with the requirement to provide as great a variety of work as possible. So far as local authority hostels are concerned the suggestion is that these should be quite small and should not be concentrated in one place. To staff scattered small units would be very much more expensive in staff than in existing units. Has the Department really faced the financial implications of this?

Recruitment of Staff

There are also problems of staff recruitment and training. Would the smaller general hospital units receive approval as training centres from the Royal College of Psychiatrists or the General Nursing Council? There is the further problem of career prospects in psychiatric nursing. Many psychiatric nurses fear that general nurses understand psychiatric nursing so little that the general hospital nursing hierarchy would not allow them to do their job. For instance, they ask would any general hospital matron understand that it is part of mental nursing to organize games or even to play billiards with patients? With the implementation of the Salmon structure it is unlikely that many psychiatric units would be large enough to rank an area nursing officer above Grade 8. This must inevitably deter nurses of the best calibre from entering psychiatry.—We are, etc.,

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J. H. PRICE

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Lincoln

Community Medicine

SIR,—When a new concept is invented full understanding of what it means is assisted if we have in our minds a model by which to judge it. There is much talk and printed discussion just now about a new kind of medical animal, variously called the community physician or the specialist in community medicine. We all know what a surgeon is and what he does and I think we all know what a physician is and what he does. Likewise most people probably have a fairly clear picture of the M.O.H. and his duties in advising local authorities on community services which they are presently required to provide; maternity and child welfare, school health services, control of epidemic disease, food hygiene, port medical services, and many other things, and we know what the hospital medical administrator does. However, many people seem to be confused and uncertain about the detailed work which will be expected of the "specialist in community medicine" for this has not been spelt out clearly.

In the report (*Supplement*, 22 January, p. 19) of your discussion with Dr. C. D. L. Lycett, Chairman of the B.M.A.'s Public Health Committee, Dr. Lycett appears to set out some of his ideas on this subject. However, as with other similar descriptions this one tends to be couched in rather vague and indefinite phrases which do not go far enough in detail to amount to the model I seek.

It may be naive of me to seek a realistic blue-print of the future specialist in com-

munity medicine when I know of, and indeed played some small part in, the establishment of the new Faculty of Community Medicine of the Royal Colleges of Physicians of Edinburgh, Glasgow, and London, and was a member of the joint working party which produced the Brotherton report *Doctors in an Integrated Health Service*.¹ Perhaps Dr. Lycett could be persuaded to amplify the remarks he made to the *B.M.J.* He may thus help others besides me to peer into an uncertain future.—I am, etc.,

J. G. M. HAMILTON

Edinburgh

¹ Scottish Home and Health Department, *Doctors in an Integrated Health Service*. Edinburgh, H.M.S.O., 1971.

Cardiac Arrhythmias during Laparoscopy

SIR,—We read with interest the article by Drs. D. B. Scott and D. G. Julian on cardiac arrhythmias during laparoscopy (12 February, p. 411). Together with Professor G. R. Kelman, we have been investigating the cardiovascular effects of laparoscopy,¹ and have now completed a series of over 50 cases where laparoscopy was carried out under a nitrous oxide, oxygen, relaxant technique with endotracheal intubation and artificial hyperventilation, during which end-tidal CO₂ concentration and E.C.G. were monitored continuously in all patients and PaO₂ and PaCO₂ were measured in 15. When planning this study, we decided against allowing patients to breathe spontaneously via a face mask for the following reasons:

(1) The significant risk of silent regurgitation in patients in the Trendelenburg position with raised intra-abdominal pressure.²

(2) The increased incidence of cardiac arrhythmias in patients with hypercarbia breathing halothane.^{3,4}

(3) The occurrence of hypoxaemia during spontaneous ventilation in patients in the Trendelenburg position where the diaphragm has been splinted by artificial pneumoperitoneum. Desmond and Gordon⁵ quote a PaO₂ as low as 46 mm Hg in such a patient breathing 33% O₂.

In our series PaCO₂ rose by a mean of 5 mm Hg, and never exceeded 40 mm Hg. Mean PaCO₂ was 135 mm Hg, the lowest being 101 mm Hg. No cardiac arrhythmias were seen in the series.

We conclude that with the technique used by us cardiac arrhythmias can be avoided during laparoscopy, when carbon dioxide is the insufflating gas. Even when nitrous oxide is used for insufflation Alexander and Brown⁶ recommend maintaining adequate positive pressure ventilation to prevent excessive rises in the arterial PCO₂.—We are, etc.,

NANETTE L. M. GORDON
IAN SMITH
G. H. SWAPP

Royal Infirmary,
Aberdeen

¹ Smith, I., Benzie, R. J., Gordon, Nanette, L. M., Kelman, G. R., and Swapp, G. H., *British Medical Journal*, 1971, 3, 410.

² Seed, R. F., Shakespeare, T. F., and Muldoon, M. J., *Anaesthesia*, 1970, 25, 223.

³ Hodgson, C., McClelland, R. M. A., and Newton, J. R., *Anaesthesia*, 1970, 25, 382.

⁴ Scott, D. B., *Anaesthesia*, 1970, 25, 590.

⁵ Desmond, J., and Gordon, R. A., *Canadian Anaesthetists' Society Journal*, 1970, 17, 378.

⁶ Alexander, G. D., and Brown, E. M., *American Journal of Obstetrics and Gynecology*, 1969, 105, 1078.

SIR,—Dr. D. B. Scott and Dr. D. G. Julian (12 February, p. 411) are to be complimented on studying cardiac arrhythmias during laparoscopy and on a total of 1,000 laparoscopies a year at Edinburgh. Though interested to learn that the incidence of arrhythmia is reduced by the substitution of nitrous oxide for carbon dioxide as the insufflated gas, we suggest that the technique of anaesthesia could not have been bettered with maximum production of arrhythmia in mind.

Pneumoperitoneum and a degree of head down tilt undoubtedly embarrass respiration in the anaesthetized spontaneously breathing patient. Also regurgitation must be more likely. These difficulties are solved by endotracheal intubation and controlled ventilation. The essentials of our technique are: oral premedication with nitrazepam and droperidol, 10 mg of each given as early as possible, induction with a small dose of any short acting intravenous induction agent, gallamine 100 to 140 mg to provide muscular relaxation and to facilitate endotracheal intubation, and controlled ventilation with nitrous oxide and oxygen supplemented with pentazocine 60 to 90 mg. After reversing the gallamine with neostigmine and atropine the patients are returned to the ward awake and able to raise their heads on request. Many go home the same day. In these day-cases the premedication is halved.

The intra-abdominal pressure will not be raised above 20 mm of mercury unless excessive amounts of gas are introduced into an unrelaxed abdomen. The common instruments in use do not limit the pressure but only allow its measurement. The point of measurement is frequently distant from the abdomen and may bear little relation to the intra-abdominal pressure. The amount of gas to be used, usually at least 3 litres, can best be estimated clinically by observation and palpation of the abdomen.

We do not see arrhythmias. In fact we have long since given up looking for them. We would like to emphasize that with this sort of technique laparoscopy is easier for the gynaecologist, the patient, and the anaesthetist.—We are, etc.,

PATRICK STEPTOE
F. N. CAMPBELL

Oldham, Lancs

Spontaneous Fracture of Pelvis in Rheumatoid Arthritis

SIR,—Dr. R. T. Taylor and colleagues (11 December, p. 663) described the occurrence of spontaneous fractures of the pelvis in rheumatoid arthritis. Subsequently Dr. J. Dequeker and others (29 January, p. 314) drew attention to the low serum calcium levels in four of the six cases and described a further patient who had definite osteomalacia. In the case reported below there was also a low serum calcium, and like two of the Westminster Hospital patients she has done very well on conservative treatment.

The patient is a 64-year-old woman suffering from definite rheumatoid arthritis of five years' duration with typical x-rays but a negative agglutination test. She was treated initially with salicylates and only changed to indomethacin and ibuprofen three months prior to her admission. She has never had corticosteroids. One day she was relatively well in the morning and went

upstairs without difficulty for a rest after lunch. However, on rising from her bed she suddenly felt a severe pain which extended up the front of the right thigh and round the lateral aspect of the pelvis. This pain persisted, the whole of the right leg became swollen, and the thigh became discoloured by extravasated blood. On admission about 10 days later the right leg was swollen and oedematous, shortened by 5 cm, and externally rotated. An x-ray of the pelvis revealed destruction of the upper half of the femoral head with protrusion of the lower half through the acetabulum into the pelvis and a fracture of the right pubic ramus.

She was treated with rest, elevation of the limb, and physiotherapy and at the end of a month there was a marked reduction in the oedema and pain. After a further month gentle rotation of the femur was no longer painful and she could bear weight on the injured leg. By this time the x-ray showed marked callus formation in the region of the fracture and with the help of elbow crutches she was able to walk without undue difficulty.

Her serum calcium was 8.5, 8.5, and 8.0 mg/100 ml on three days, the serum phosphorus was 2.7 mg/100 ml, and the alkaline phosphatase was 8 units/100 ml. Her serum albumin was 2.6 g/100 ml on several occasions. There was no radiological evidence of osteomalacia and it was considered that the low level of calcium was due to the low serum albumin. In view of the satisfactory healing of the fracture without calciferol therapy the diagnosis of osteomalacia seemed most unlikely.—I am, etc.,

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Pulmonary Alveolar Proteinosis

SIR,—Your leading article on "Pulmonary Alveolar Proteinosis" (12 February, p. 395) gives the impression that this lesion invariably presents radiologically as feathery opacities showing a perihilar distribution resembling acute pulmonary oedema.

While this was the original description, and is doubtless the commonest finding, pulmonary alveolar proteinosis may present in other ways. Numerous cyst-like translucencies may be a conspicuous feature, probably due to pneumatoceles from bronchial obstruction. Pneumothorax may be a sequel, as in our case.¹ The opacities may not be predominantly central as in acute pulmonary oedema, but may be mainly basal or peripheral. Shifting opacities may suggest pulmonary eosinophilia. A feathery pattern is not invariable, and indeed one case in a tin miner showed multiple small nodules indistinguishable from pneumoconiosis.²

It is a common fallacy to expect all later observations of a lesion to conform to the original description, and indeed several illustrations of the disease are described as showing a perihilar distribution, when this is belied by the illustrations themselves.—I am, etc.,

H. C. ANTON

Stobhill General Hospital,
Glasgow N.1

1 Anton, H. C., and Gray, B., *Clinical Radiology*, 1967, 18, 428.
2 Ray, R. L., and Salm, R., *Thorax*, 1962, 17, 257.

SIR,—Your leading article (12 February p. 395) includes the statement "whether desquamative interstitial pneumonia... is a related disorder remains to be determined."

The alveolar proteinosis which we described in rats exposed to various dusts developed through a stage marked by severe macrophage exudation, which we called endogenous lipid pneumonia.¹ Since then we have encountered a similar sequence in rats given iprindole. Ultrastructural comparison of these animals and a human case of desquamative interstitial pneumonia² has convinced us that not only are the late experimental lesions those of alveolar proteinosis but that the early changes represent desquamative interstitial pneumonia.³ The relevance of this to clinical medicine is emphasized by a recent case report describing the development of alveolar proteinosis from desquamative interstitial pneumonia in a child.⁴

For the benefit of prescribers I should add that the amounts of iprindole used experimentally greatly exceeded the clinical dose, and that only the rat appears to react in this way.—I am, etc.,

B. CORRIN

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London S.E.1

- 1 Corrin, B., and King, E., *Thorax*, 1970, 25, 230.
- 2 Corrin, B., and Price, A. B., *Thorax*, 1972, in press.
- 3 Vijayarajnam, G. S., and Corrin, B., *Journal of Pathology*, 1972, in press.
- 4 Bhagwat, A. G., Wentworth, P., and Conen, P. E., *Laboratory Investigation*, 1970, 22, 492.

Social Factors and Medical Ethics

SIR,—Lord Brock (12 February, p. 440) raises an important point of principle regarding medical ethics, one which relates not only to the subject of overpopulation but to other areas of medical activity. No one has seriously suggested abandoning the Hippocratic code, but attempts have been made to interpret and extend it in the light of twentieth century conditions, notably in the W.M.A. Declaration of Geneva in 1948¹ and that of Helsinki in 1964.² With further rapid advances in medicine the distinction between "medical" and "social" reasons for actions undertaken by doctors has become increasingly obscure. In addition to abortion and sterilization, matters such as contraception, genetic manipulation, transplantation, and experiments on human beings cannot ethically be properly assessed in a purely medical context. The reason why this difficulty arises is in my view fundamentally biological. Man is biologically a social animal and this basic human characteristic permeates and influences the whole of medicine, including medical ethics. If, therefore, we try to separate ethical issues into rigidly medical or social compartments we are not likely to solve many of the problems now confronting us. It is going to be difficult enough anyway without this compartmentalized thinking.

Although medical advances helped to set it off, the population explosion is itself basically biological. Doctors, as doctors, have been involved with it from its earliest stages, particularly in the control of infectious diseases, and it would seem strange, now that the true consequences are becoming apparent, if we sought shelter in an ethical ivory tower. Mankind is faced with its

greatest ever crisis and every discipline will have to consider with some urgency what contribution it can make. If we, as doctors, opt out, the world population boom will go roaring on, over the brink to catastrophe. No other profession has the same power to avert it. As you, Sir, point out in your leading article (12 February, p. 391) this will require commitment by doctors, not least in the field of educating the public—incidentally a medicosocial activity. As one of the signatories to the letter on overpopulation (8 January, p. 108) I am personally grateful to Lord Brock for raising the issue. It constitutes a real difficulty in many doctors' minds and will stimulate further necessary thinking.

The various ethical issues mentioned above have been widely discussed in the medical profession, albeit in a somewhat piecemeal fashion. But the time has come to reassess them in a biological context. I would suggest that this vital task be undertaken as a matter of urgency by (1) the various royal colleges (it would be helpful if they could appoint a joint working party to get on with it), (2) the reconstituted General Medical Council, who could investigate the more legal aspects, (3) the Central Ethical Committee of the British Medical Association, and (4) any other medical organization (including junior doctors and medical students) which feels it can offer sensible advice. We are already well into the 1970s and a million extra babies in the world every five days should constitute a sufficient spur to the medical profession to mobilize all its not inconsiderable wisdom and expertise. Even granted this, we may not win, but at least we should try.—I am, etc.,

NORMAN MACDONALD

Clare Hall Hospital,
Potters Bar, Herts

- 1 *World Medical Association Bulletin*, 1949, 1, 35.
- 2 *British Medical Journal*, 1964, 2, 177.

SIR,—Lord Brock's letter (12 February, p. 440) must be answered. He speaks as though a doctor is a man concerned entirely with physical and psychiatric disease. As a hospital consultant, Lord Brock may be able to confine himself to these matters. However, half the doctors in England are employed as general practitioners, and their work must of necessity include problems arising from social conditions which can only be cured by appropriate social policies. Doctors must fulfil their function as social reformers. To leave it to the sociologists is to do a great disservice to our patients.—We are, etc.,

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J. WEST
R. LEFEVER

London S.W.7

SIR,—By the distinction made between the medical and the sociological in Lord Brock's letter (12 February, p. 440) two intriguing possibilities are raised.

The first is that during a long and distinguished career Lord Brock has failed to appreciate the nature of the medical ethic. The second is that, inasmuch as his understanding of these matters is correct (the distinction between the medical and the sociological being justly perceived), the whole