taining an appropriate professional reticence in their advertising, should think along these more patho-physiological lines rather than accepting an increase in the forced expiratory volume as necessarily improving lung function. At the same time several valid points have been raised by both Dr. Clarke and Dr. Grant and it might be timely to have a meeting on this subject in order to correlate the work that has already been done by many workers in this interesting field.—I am, etc.,

T. T. CHAPMAN.

Pulmonary Function Unit,
Baggot Street Hospital,
Dublin 4.

REFERENCES

1 Campbell, E. J. M., *British Medical Journal*, 1965, **1**, 1451.
2 Campbell, E. J. M., *American Review of Respiratory Diseases*, 1967, **96**, 626.

Promoting "No Smoking"

SIR,—We hope many professional colleagues will have noted with due appreciation the provision of "No Smoking" facilities by PanAm in their jumbo jet aircraft. We trust this overdue gesture will prompt other airlines to remedy their own inadequate environmental provisions.

This "clean air in the air" will be greatly welcomed by the many non-smoking passengers from whom we have received letters of complaint.—We are, etc.,

J. P. ANDERSON,
President,

Chest Clinic,
Musgrove Park Hospital,
Taunton.

T. W. HURST,
Chairman,
National Society of Non-Smokers.
Royal Infirmary,
Edinburgh.

Slot Machine Cigarettes

SIR,—Your correspondent's comment about the importance of the cigarette slot machines in the development of the smoking habit (9 May, p. 364) are supported by the research we carried out for the Department of Health.[1] Slot machines are a particularly important source of cigarettes to the smoker who is too young to persuade a shopkeeper to sell them to him.

In the first year of secondary school we found that 14% of schoolboy smokers usually obtained their cigarettes from slot machines whereas in the fourth year this proportion had dropped to 3%. The corresponding proportions for obtaining cigarettes from shops were 64% in the first year and 78% in the fourth year.—I am, etc.,

J. M. BYNNER,
Senior Research Officer,
Government Social Survey Department.
London, E.C.1.

REFERENCE

1 Bynner, J. M., *The Young Smoker*, London, H.M.S.O. 1969.

Cardiac Failure and Folate Deficiency

SIR,—Dr. F. P. Retief's letter (28 March, p. 820) concerning cardiac failure and folate deficiency draws attention to the role of excessive excretion as a contributory cause of folate deficiency.

It prompts me to point out that increased folate loss in the urine may also contribute to the low plasma folate activity found in pregnancy especially toward term. Estimations on 24-hour urine samples collected by six women at regular intervals throughout pregnancy gave a mean value for folate activity of 13·6 ± 8·4 μg./24 hours, compared with only 3·0 ± 1·7 μg./24 hours for the same women six weeks post partum ($t=6·8$, $p=0·005$).

This is a preliminary communication; full results will be published separately.—I am, etc.,

M. J. LANDON.

Department of Child Health,
University of Newcastle upon Tyne.
M.R..C Reproduction and Growth Unit,
Princess Mary Maternity Hospital,
Newcastle upon Tyne.

Cat Leukaemia

SIR,—I should like to object to Dr. Alice M. Stewart's statement (4 April, p. 48) that her Table does not show any statistical difference between leukaemic children and controls who kept hens or household pets.

This is not the problem in question. It is not important that animals were kept in the same degree by leukaemic children and by controls, but it should be interesting to know if some leukaemic children were "infected" by leukaemic animals and if the animals of the controls were all or prevalently healthy.

Future research should try to ascertain these data.—I am, etc.,

FRANCESCO FISCHER.

Rome, Italy.

Diaphragmatic Defects and Laparoscopy

SIR,—Dr. R. L. Midgley's letter (9 May, p. 365) mentioning pneumothorax as a complication of therapeutic pneumoperitoneum suggests the possibility of similar trouble during laparoscopy. Laparoscopy is being used increasingly in the diagnosis and treatment of gynaecological ailments. It is performed under general anaesthesia as the required gaseous distension of the peritoneal cavity would be distressing to patients if it were attempted under local analgesia. The intraperitoneal gas pressure used to facilitate the observation of viscera may cause a tension pneumothorax in the presence of a diaphragmatic defect. The consequences of this hazard are illustrated in the following case.

Some time ago a laparoscopy was performed on a fit young woman who complained of infertility. She was lightly anaesthetized with halothane in oxygen via an endotracheal tube, fully curarized and atropinized. Respiration was manually controlled. She was placed in the lithotomy position with a head-down tilt. The peripheral pulse was continuously displayed by a digital plethysmograph and the systolic blood pressure recorded frequently. Oxygen was insufflated into the peritoneal cavity starting at 500 ml./min. and gradually increasing to 2 litres a minute until a pressure of 15 mm. Hg was reached. During the period of oxygen insufflation, which lasted about five minutes, the patient became cyanosed despite apparently adequate ventilation with oxygen. The blood pressure fell rapidly, the pulse became slower and stopped a few minutes later. External cardiac massage was performed without effect for about 20 seconds. The left pleural cavity was then opened to permit direct cardiac massage. The left lung was found to be completely collapsed, the mediastinum pushed to the right, and the heart in asystole. The lung reinflated easily and the heart resumed normal activity after a few manual compressions and normal blood pressure and tissue oxygenation returned. The chest incision was sutured, the anaesthetic withdrawn, and the patient recovered full consciousness a few minutes later. Her subsequent convalescence was uneventful.

It would seem that the patient sustained a cardiac arrest owing to tamponade caused by a tension pneumothorax on the left side. The most probable cause was the passage of oxygen under pressure from the peritoneal cavity to the pleural cavity via a defect in the diaphragm. The early recognition of the pneumothorax in these circumstances is difficult. The use of intraperitoneal carbon dioxide instead of oxygen is unlikely to alter the risk and introduces the problem of sympathetic overactivity of the heart if excessive amounts are absorbed; the latter can be controlled with beta adrenergic blocking drugs.[1] Localization of the cardiac apex beat before and during the procedure may be of some help, but the position of the heart is altered by the head-down posture and by the intraperitoneal pressure. Tracheal deviation may indicate the affected side. Chest percussion and auscultation may be helpful, but little time is available for accurate assessment. It is obvious that the rate of development and the severity of the pulmonary and cardiac collapse are dictated by the intraperitoneal pressure. It is not improbable that pressures in excess of 5 mm. Hg should be used with caution and in the minimal amounts required for good observation of the viscera.

We think that laparoscopy is neither a suitable nor safe alternative to laparotomy in patients with cardiopulmonary disease, because of the impairment of respiratory activity and venous return which may accompany the procedure, even in the absence of a diaphragmatic defect.—We are, etc.,

T. B. FITZGERALD.
M. W. JOHNSTONE.

St. Mary's Hospitals,
Manchester.

REFERENCE

1 Johnstone, M., *British Journal of Anaesthesia*, 1969, **41**, 130.

Action on Amphetamines

SIR,—Heartiest congratulations to the interprofessional committee of Ipswich on their voluntary ban on the prescribing of amphetamines in the town (9 May, p. 361). I am not opposed to legislation as such, but I often feel that common sense, the application of existing measures, voluntary co-operation between the various disciplines, and, above all, a sincere appreciation of the basic causes of drug dependence will do more to combat this scourge than all the legislation—however welcome.

I am the chief pharmacist of a hospital in London. With the agreement of the medical staff involved, I have introduced a system of seven-day supply for drugs in circumstances where they are liable to misuse. Unfortunately it is felt that whatever doors are