anxiety states arising from domestic crises. Treatment was given to them as outpatients and recovery was obtained with the use of mild anxiolytic drugs and a small number of interviews. The younger man had a life policy offered to him with such a heavily loaded premium that he could not afford it. The older man was turned down completely by one insurance company. In neither case was I asked for my opinion by an insurance company. In any event I did not consider that either patient was a suicidal risk.

I have not come across this practice before in patients with such minor psychiatric histories as these two had. I would be interested to know if other colleagues have had similar experiences. If this practice is widespread it would be useful to know which prognostic criteria are being used by the insurance companies in the assessment of psychiatric illness.

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Ascaris infection

SIR,—Your leading article on *Ascaris lumbricoides* (12 February, p 406) was interesting and timely as infestation with this worm is becoming more frequent in Britain owing to the arrival of people from endemic areas. However, there is one point which needs clarifying, and that concerns intestinal perforation. There is doubt whether the worm can perforate normal bowel,¹ but it does penetrate lesions such as typhoid ulcers.² More important, the worm will perforate intestinal or biliary anastomoses giving rise to fistulae or peritonitis.³ These serious surgical complications occur because the worms seem to be attracted to the site of an anastomosis and digest the suture material.

We have recently seen and presented⁴ four patients who, after routine abdominal surgery, developed biliary or intestinal fistulae through which an ascaris emerged. These complications can be avoided by giving patients with definite evidence of infestation or from high-incidence areas piperazine adipate (up to 4 g) the day before operation.

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¹ Cole, G J, *British Journal of Surgery*, 1965, **52**, 444.
² Van Rensburg, L C J, and Kark, A E, *Medical Proceedings*, 1958, **4**, 522.

³ Milwidsky, H, *Acta Medica Orientalia*, 1945, **4**, 370.

⁴ Franklin, A, *Proceedings of the Royal Society of Medicine*, In press.

Breast size and cancer

SIR,—It seems curious that in all the thousands of papers written on the subject of breast cancer little if any attention has been devoted to the significance of the size of the breast in which a malignant tumour develops. It must be the experience of all surgeons that the extremes occur—of large tumours developing in small atrophic breasts and yet the patients survive for many years after appropriate local treatment, while tiny tumours in large, fatty breasts may quickly prove fatal despite all treatment.

Is the amount of fat in a breast developing a carcinoma a disadvantage or is the prognosis totally independent of the size of the host breast with regard to both breast tissue and

fat? Is the incidence of carcinomas in fat, medium, and small breasts different?

Should we accept that the behaviour of the seed is uninfluenced by the size of the flower-pot in which it grows?

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Underweight breast-fed babies

SIR,—Now that both breast-feeding and not weighing babies are becoming more fashionable I would like to draw your attention to a condition that is now appearing in child health clinics. In the past 2½ years I have seen three infants who were well below their birth weight when they first appeared at the clinic. All three were breast-fed and all were first-born children.

I would like to impress upon all medical colleagues, health visitors, and clinic nurses the necessity of keeping a careful eye on breast-fed babies now that older relatives and neighbours have no practical experience to go on.

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Suicidal behaviour syndrome with low CSF 5-HIAA

SIR,—Predictors of suicidal behaviour have largely been derived from epidemiological studies which have concentrated on demographic variables such as sex, age, and social isolation. Such factors have low predictive power for suicidal behaviour in individual patients¹ and are of limited help to the clinician at the bedside.

Suicidal behaviour remains a serious problem which ties up a large number of beds and manpower in acute medical and psychiatric units besides causing considerable suffering, morbidity, and mortality. Epidemiological studies have demonstrated the size of the problem, but the kind of predictors they yield are of limited value for the clinicians' assessment of the suicidal risk in an individual. Perhaps a more fruitful approach would be to identify subgroups of suicidal behaviour using clinical observations and biochemical procedures which have a higher predictive ability and could ultimately allow the development of specific treatments.

Recent cerebrospinal fluid (CSF) studies^{2,3} have identified one possible subgroup among depressive patients. A low concentration of 5-hydroxyindoleacetic acid (5-HIAA) in the CSF is associated with a very high (40%) rate of serious suicidal attempts. This finding is surprising and raises the question whether lumbar punctures should be reintroduced into psychiatric practice. It is our impression that members of this group have sufficient clinical features in common for the condition to be described as a syndrome. People with this syndrome exude an unspoken hostility and give the impression that they might have outbursts, but these are in fact not common. They display little concern for themselves and lack empathy towards others. They tend to avoid close emotional relationships, but in spite of their aloofness they may perform well in certain social spheres. They may come to medical attention after a suicidal attempt which

is often surprisingly violent, and there is a discrepancy between the seriousness of the attempt and their smiling denial. They may give a history of depressive episodes, but often do not at the time appear clinically depressed. They are not attention-seeking and accept treatment reluctantly or with indifference.

The hypothesis of a relationship between this clinical picture and a low 5-HIAA concentration in the CSF needs to be tested and should be studied together with further psychological and biochemical investigations aimed at the development of more effective treatment.

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¹ Murphy, G E, in *The Prediction of Suicide*, ed A T Beck, H L P Resnik, and D J Lettieri. Maryland, Charles Press, 1974.

² Åsberg, M, *et al*, *Science*, 1976, **191**, 478.

³ Åsberg, M, Träskman, L, and Thoren, P, *Archives of General Psychiatry*, 1976, **33**, 1193.

Oxprenolol overdose with survival

SIR,—With reference to the report by Drs A Khan and J M Muscat-Baron of a fatal case of oxprenolol overdosage (26 February, p 552) I would like to record a similar case in which the patient made a full recovery following a period of cardiac massage lasting two hours.

A 39-year-old woman was admitted to the casualty department having ingested an estimated 2.5–3 g of oxprenolol. During a stomach washout she had a brief respiratory arrest and probably inhaled vomit. A mild generalised convulsion occurred, lasting about 15 s. An endotracheal tube was passed and 500 mg of hydrocortisone was given intravenously. The blood pressure was unrecordable and the pulse very feeble, but spontaneous respiration returned and the cardiac monitor showed sinus rhythm with a rate of 60/min. Two further brief convulsions occurred.

Shortly after transfer to the intensive care unit she had a respiratory and cardiac arrest and the cardiac monitor now showed a bradycardia of about 20/min. She was connected to a ventilator and external cardiac massage was started and performed continuously for two hours. During this time she was given: 1.2 mg atropine, 3 ml adrenaline (1/1000), and 20 ml 10% calcium gluconate intravenously; 1 ml adrenaline (1/1000) by intracardiac injection; 13 mg isoprenaline as an infusion in a total of 1.5 l of isotonic saline; 150 ml 8.4% sodium bicarbonate; and 1 l of dextran 70.

Extreme bradycardia persisted and no pulses were palpable whenever cardiac massage was stopped. The pupils were dilated and unreactive. A transvenous pacing wire was inserted and pacing was easily obtained, but there were still no palpable pulses. However, after two hours the femoral pulses became weakly palpable and cardiac massage was discontinued. Mannitol was given and she was started on dexamethasone and antibiotics.

During the next two hours the blood pressure became recordable at 130/100 mm Hg and she reverted to sinus rhythm at 80/min. Within 48 h she was fully conscious but required the pacemaker periodically. After 72 h assisted ventilation was discontinued. After this she recovered rapidly and there was no gross cerebral impairment. When seen as an outpatient seven weeks later she appeared to have made a full recovery.

This case demonstrates that recovery from oxprenolol poisoning may follow prolonged

cardiac massage. The apparent resistance to large doses of isoprenaline noted in previous reports^{1 2} was observed. In two reported cases^{1 3} glucagon has been used successfully in the treatment of myocardial depression following beta blockade.

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¹ Kosinski, E J, *et al*, *New England Journal of Medicine*, 1971, **285**, 1325.

² Lagerfelt, J, and Matell, G, *Acta Medica Scandinavica*, 1976, **199**, 517.

³ Ward, D E, and Jones, B, *British Medical Journal*, 1976, **2**, 151.

Limulus test and meningitis

SIR,—The difficulties encountered in the diagnosis of partially treated pyogenic meningitis are stressed in your recent leading article (5 February, p 340). However, we do not agree with the statement that "the limulus test seems unlikely to be generally applicable."

A commercialised form of the limulus test (Mallinckrodt) has been applied to 43 patients with meningitis in our general hospital. The test remained negative (no false-positives) in Gram-positive meningitis (seven cases), tuberculous meningitis (three cases), and viral meningitis (eight cases). In contrast it appeared very helpful in the early diagnosis of Gram-negative meningitis. Twenty-five patients had Gram-negative meningitis, proved by culture or countercurrent immunoelectrophoresis, of whom 24 (97%) gave a positive response in the limulus test, although only 11 (42%) had a positive Gram stain. More particularly, four patients who had received antibiotics before admission had a negative Gram stain in contrast to the positive result of the limulus test.

Finally, from a practical point of view the limulus test appears easy to apply—the rapid procedure (about 15 min), early response (1–4 h), good sensitivity of the commercialised test, and relatively low cost are arguments in favour of its general application.

The practical advantages and the high efficiency of this method in the bacteriological diagnosis of pyogenic meningitis^{1 2} permit early institution of appropriate treatment.

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¹ Nachum, R, Lipsey, A, and Siegel, S E, *New England Journal of Medicine*, 1973, **289**, 931.

² Ross, S, *et al*, *Journal of the American Medical Association*, 1975, **233**, 1366.

Effect of thyrotrophin-releasing factor on lactation

SIR,—Thyrotrophin-releasing factor (TRF) is a potent stimulus for the release of prolactin in lactating women.¹ The rise in circulating prolactin induced by TRF has been said to be associated with breast engorgement and, by inference, with increased milk production.^{1 2} It therefore seemed that TRF might be useful to stimulate lactation in women with inadequate milk for their babies.

We studied six women to assess the rise in milk volume caused by TRF. All were healthy Black women living in Soweto, near Johannes-

burg, and were between two and six weeks post partum. Three were lactating successfully, while three were producing inadequate milk for the infant's needs. The study was approved by the university ethical committee and informed consent was obtained. The production of milk was measured by test-weighing before and after suckling, followed by complete expression. Measurements were carried out over a 24-h control period before the administration of TRF and for two feeds after TRF (that is, 6 h). The administration of TRF and the collection of blood samples for prolactin estimation were timed and carried out as described by Tyson *et al*¹ except that the dose of TRF was 200 µg. Prolactin was measured by radioimmunoassay.

There was a wide variation in basal plasma prolactin levels and in the response to suckling, but the prolactin level rose significantly in five of the six women after administration of TRF. The sixth was lactating very successfully and had high basal levels. There was no correlation between resting or stimulated prolactin levels and the success or failure of lactation. Milk production during the control period fluctuated very widely, as found by Hytten.³ In no case did the milk output rise in the two feeds following TRF administration. In five of the six women the post-TRF feed actually produced less milk than the feed immediately before TRF.

These results suggest that, while lactation is dependent on prolactin, milk production is not proportional to the plasma prolactin level. Other factors must be responsible for lactation failure. An effective galactagogue would be invaluable; however, our results suggest that evaluation of such agents must be based on actual measurements rather than subjective impressions such as breast engorgement.

We thank Professors Wayburne and Hansen for advice and Roche Ltd (South Africa) for supplies of TRF.

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¹ Tyson, J E, *et al*, *Journal of Clinical Endocrinology and Metabolism*, 1975, **40**, 764.

² Tyson, J E, Friesen, H G, and Anderson, M S, *Science*, 1972, **177**, 879.

³ Hytten, F E, *British Medical Journal*, 1954, **1**, 175.

IgA deficiency during penicillamine treatment

SIR,—The report by Dr O Hjalmarson and others (26 February, p 549) of a case of penicillamine-induced IgA deficiency appears to confirm the report of a case from Belgium.¹

After reading the Belgian report we decided to check the serum IgA levels in our own group of patients receiving penicillamine for Wilson's disease. We have currently three adult women with this diagnosis under treatment. Two of them are sisters (now aged 31 and 28 respectively) in whom the diagnosis was made in the autumn of 1975. The elder received penicillamine from February 1976 until she developed the nephrotic syndrome in October 1976. Her IgA level was normal (1.1 g/l (normal range 0.70–3.8 g/l) despite a urinary loss of around 3000 mg/24 h) when penicillamine was withdrawn. Her sister, who tolerated the drug for only six months before developing the nephrotic syndrome, also had

normal IgA levels when the penicillamine treatment was withdrawn (1.0 g/l; urinary albumin 4000 mg/24 h).

Our third patient, a woman now 28 years old whose Wilson's disease was diagnosed in 1970, has been treated with penicillamine and prednisolone (2.5 mg/24 h) since April 1970. IgA levels were followed during the first years of treatment and were on no occasion found to be low, ranging from 2.0 g/l in February 1971 to 1.6 g/l in September 1974. She remains well on 1.5 g of penicillamine daily (steroids were withdrawn early in 1976) and denies any increase in frequency of upper respiratory tract infections. Further, she successfully completed a normal pregnancy in January 1975, giving birth to a normal, healthy baby girl weighing 2780 g. We plan to report this case in full at a later date.

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¹ Proesmans, W, Jaeken, J, and Elckels, R, *Lancet*, 1976, **2**, 804.

Lingual polyp as cause of birth asphyxia

SIR,—Tumours of the mouth and neck occasionally cause birth asphyxia, but we have not been able to find any previous record of a lingual polyp causing respiratory obstruction at birth.

The baby, the third child of a healthy Nigerian mother, was born at term following a pregnancy complicated by moderate polyhydramnios from the 27th week onwards. He was delivered by forceps because of fetal distress, weighing 4020 g. He cried at birth but within a few seconds became cyanosed and appeared to be having respiratory difficulty. Inspection of the upper airways showed a pedunculated tumour arising from the base of the tongue in the midline and obstructing the pharynx like a ball-valve. The pedicle was ligated and the tumour excised immediately. The baby had no further difficulties. The tumour (see figure)

Section through lingual polyp ($\times 4.3$).

measured $18 \times 13 \times 13$ mm and consisted of smooth muscle bundles and fibrous tissue containing nerve bundles, blood vessels, lymphatics, adipose tissue, and glands and ducts similar to mucus-producing salivary glands. The nodule was covered with keratinising stratified squamous epithelium containing pilosebaceous follicles and one definite hair. There was no evidence of neoplasia.

The features of this tumour were similar to those described in hairy polyps arising on the