law courts. By the time that stage is reached the recollection of the caller may have been blurred (as may that of the doctor) so that the service committee or judge has to decide which of two conflicting accounts to believe as to the precise questions asked by the doctor, the information given to him, and the advice finally given. Both parties may be endeavouring to tell the truth and both may be mistaken. One knows that before certain tribunals the following argument is often used: (1) The doctor may deal with 60 patients per day. (2) A night telephone caller to a doctor is usually doing something unusual and is therefore unlikely to be confused in his recollection about what happened. (3) Accordingly the account of the caller is to be preferred to that of the doctor.

These are some of the dangers which surround a doctor who upon receipt of a night telephone call decides not to visit the patient unless he is called a second time.

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¹ Williams, B T, Dixon, R A, and Knowelden, J, *British Medical Journal*, 1973, 1, 593.

SIR,—No doubt the debate on who should do night visits will continue for some time. Perhaps I am not made of the stuff that other doctors are made of as I work badly after missing sleep. It takes me two days to return to feeling normal after a badly disturbed night. As I see between 45 and 60 patients on a normal day this means that around 100 patients are at risk from my fatigue after one bad night.

The main argument against using a deputising service is that one's continuity of patient care is interrupted. I work in a partnership of six, and during the day we personalise our practice as much as possible by normally seeing our own patients. During the night the chance of a call being to one's own patient is obviously only 1 in 6.

During the past 10 years I have carried out well over 100 000 consultations and visits. Of these, 210 have been between midnight and 7 am. Probably a sixth of these—35—have been to my own patients. This represents less than 0.035% of the care given to my own patients. For this minuscule degree of continuity literally thousands of consultations and visits have been carried out when I have not been at my best because of lack of decent sleep. I feel that during the past 10 years my patients would have been better treated if I had used a deputising service for out-of-bed calls, leaving me fresher to cope during the day.

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Orf in Britain

SIR,—A clinical condition in man indistinguishable from orf virus infection derived from sheep (Dr M S Hall, 14 August, p 420) can be produced by milker's nodule virus infection. Of 32 patients with orf-like lesions seen during the past 25 years in West Dorset, 14 were considered to have milker's nodule virus infection. These 14 patients gave a history of milking cows but not of handling sheep. When the cows' teats were examined vesicles and characteristic ring sores were

found. This infection of dairy cattle is enzootic in Dorset. Twenty-one herds were examined; all had evidence of infection, confirmed in 19 herds by electron microscopy and tissue culture.¹ There is evidence² that the viruses of orf and milker's nodule, although having some similarities, are biologically distinct.

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¹ Nagington, J, Tee, G H, and Smith, J S, *Nature*, 1965, 208, 505.

² Huck, R A, *Veterinary Record*, 1966, 78, 503.

Carpal tunnel syndrome in the blind

SIR,—I have recently had a blind patient with the carpal tunnel syndrome which seemed to have developed as a result of her using the long-cane technique for walking. In this instance the symptoms and signs were so severe that the patient was not able to use braille.

I have made some inquiries in my area and it is apparent that the association of the syndrome and use of the cane in blind people is not perhaps all that uncommon. I am anxious to find out if this is a common association, and I would be grateful, therefore, if anyone would get in touch with me and let me know of any other cases. Clearly it is of more than academic interest because, as in the patient mentioned above, a very serious disability arises if they are unable to use braille.

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Volvulus of the small bowel in a diabetic patient

SIR,—Dr L J De Souza (1 May, p 1055) reports 12 cases of primary volvulus of the small bowel in Ugandans associated with the ingestion of large amounts of local beer, which is known to contain high doses of serotonin. We would like to present a case of primary volvulus of the small bowel causing complete gangrene of the bowel in a diabetic patient.

A 56-year-old man was admitted for the control of unbalanced and labile diabetes mellitus of five years' duration. While in hospital he developed an acute attack of severe abdominal pain and vomiting followed by abdominal distention and signs of peritoneal irritation, giving rise to the suspicion of acute mesenteric occlusion. At operation the entire small bowel was found to be twisted clockwise 540° around its mesentery, which was of normal length and attachment. No anatomical anomaly was found to explain the volvulus. The bowel was gangrenous from the ligament of Treitz to the ileocaecal valve. Small-bowel resection was performed but to no avail and the patient died 36 hours later.

Searching the literature we were unable to find similar cases of primary small-bowel volvulus except for those described by Mr De Souza and the others cited by him. His cases and ours seem to be similar in that a motility disturbance may be the cause of volvulus.

Diabetes mellitus affects every organ system, the gastrointestinal tract being no exception. The gastrointestinal manifestations, such as gastric atony, diminished acid secretion, and diarrhoea, are ascribed to diabetic neuropathy.¹ Diarrhoea, the more common symptom of diabetic enteropathy, occurs in patients in whom neuropathy is severe and affects

peripheral as well as autonomic nerves. As in our patient, diabetic enteropathy is usually encountered in patients with long-standing diabetes whose disease has been poorly controlled and is often punctuated by episodes of ketosis. Subclinical involvement of various organ systems in diabetes has been noted to occur for protracted periods before the onset of overt symptoms.² McNally *et al.*,³ in an attempt to determine the extent of this subclinical involvement of the small intestine in diabetic patients, found a progressive decrease in intestinal tone, a progressive increase in the large-wave activity produced by peristaltic complexes, and unchanged small-wave activity representing local segmental contractions. Their conclusion was that the subclinical involvement of the small intestine in diabetes is more common than is generally suspected and that these abnormalities become clinically manifest by diarrhoea in only a small number of patients. These changes in bowel tone and motility may well be the initiating mechanism in the development of a primary volvulus of the small bowel in a similar way to the changes produced by serotonin in Mr De Souza's patients.

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¹ Katz, L A, and Spiro, H M, *New England Journal of Medicine*, 1966, 275, 1350.

² Ellenberg, M, *Journal of the American Medical Association*, 1963, 183, 926.

³ McNally, E F, Reinhard, A E, and Schwartz, P E, *American Journal of Digestive Diseases*, 1969, 14, 163.

Porcine dermis dressing versus Bisgaard therapy for leg ulcers

SIR,—I read with interest the paper by Dr J S H Rundle and others (24 July, p 216). We also are achieving successful results with lyophilised freeze-dried porcine dermis. However, for their control group the authors state that "conventional 'Bisgaard' treatment consisted of bandaging (Calaband or Quinaband) and elastic support with weekly dressing changes." This is not Bisgaard therapy and I would like to refer readers to Bisgaard's original description of his method.¹ The importance of this technique is daily massage, pressure bandaging, and elastic support. It does not involve occlusion for a week as stated by Dr Rundle and his colleagues.

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¹ Bisgaard, H, *Ulcers and Eczema of the Leg, Sequels of Phlebitis, etc.* Copenhagen, Munksgaard, 1948.

Acute gastric dilatation after trauma

SIR,—I wish to add the following observations to the article on this subject by Mr A T Kasenally and others (3 July p 21)

Acute gastric dilatation does not occur only after abdominal operations and abdominal injuries. It can occur as a reflex phenomenon in response to injuries other than to the lower chest, abdomen, and pelvis, after application of a plaster jacket, and as a complication of shock.^{1 2}

A 10-year-old girl was admitted to an orthopaedic ward after being involved in a road accident.

On examination she had a fracture of the shaft of the right femur. There was no direct injury to the lower chest, abdomen, or pelvis. A few hours after admission she complained of upper abdominal discomfort and examination showed epigastric fullness. There was no rigidity or tenderness in the abdomen and bowel sounds were normal. The chest did not show any evidence of fractured ribs or haemopneumothorax. Plain x-ray of abdomen revealed gross distension of the stomach (see figure). The distension was treated with nasogastric suction and an intravenous drip. After 24 hours the abdominal discomfort and fullness disappeared and the patient was passing flatus normally. Her subsequent progress in a Thomas splint for the fractured femur was uneventful.

This case illustrates the fact that acute gastric dilatation can occur after trauma other than blunt injuries to the abdomen and, if there is no intra-abdominal injury, responds to intragastric suction. If this is borne in mind unnecessary laparotomy may be avoided.

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¹ Starr, K W, *Annals of the Royal College of Surgeons of England*, 1973, 12, 71.

² *Hamilton Bailey's Emergency Surgery*, ed T J McNair, 9th edn. Bristol, Wright, 1972.

Effects of pethidine on the newborn

SIR,—I must take issue with Mr J Mair (14 August, p 425), who writes that the respiratory depressant effect of pethidine on the newborn has been overstated. He gives anecdotal evidence for his point of view by mentioning that "the condition and Apgar score of these babies have never been adversely affected by this regimen." The most relevant point he makes is that he administers 100 mg of pethidine one hour before caesarean section. It is well known that pethidine given to mothers within one hour of delivery has little if any respiratory depressant effect on the newborn baby.^{1,2} His conclusions are thus based on a series of cases in which one would not expect the problems of respiratory depression.

Your expert's answer to your correspondent (19 June, p 1519) brings up some interesting questions. The lack of response to nalorphine, which is usually an effective antagonist to the respiratory depressant effect of pethidine, suggests that there may be another reason for this depression which occurs in neonates delivered to mothers who are given pethidine before delivery. It has been postulated that it may be the metabolites of pethidine³ which are

the offending substances, norpethidine being known to be more toxic than pethidine.³ This may explain the lack of response to nalorphine in many instances. It may also explain the lack of respiratory depression found when pethidine is administered less than one hour before delivery.

There have been several recent papers suggesting that respiratory depression is but one of several less obvious, though potentially harmful, effects of pethidine administration to mothers in labour.⁴⁻⁶

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¹ Shnider, S M, and Moya, F, *American Journal of Obstetrics and Gynecology*, 1964, 89, 1009.

² Morrison, J C, et al, *American Journal of Obstetrics and Gynecology*, 1973, 115, 1132.

³ Miller, J W, and Anderson, H H, *Journal of Pharmacology and Experimental Therapeutics*, 1954, 112, 191.

⁴ Richards, M P M, and Bernal, J F, in *3rd International Congress on Obstetrics and Gynaecology*, London, 1971, p 303. Basel, Karger, 1972.

⁵ Brackbill, Y, et al, *American Journal of Obstetrics and Gynecology*, 1974, 118, 377.

⁶ Desmond, M M, *Anesthesiology*, 1974, 40, 111.

Extrapyramidal side effects of lithium treatment

SIR,—It is well known that various effects upon the extrapyramidal system may occur during treatment with neuroleptic drugs. Recently debate has arisen concerning extrapyramidal symptoms as an effect of lithium treatment. Shopsin and Gershon¹ reported cogwheel rigidity in more than half of their patients under treatment with lithium for more than one year. The frequency was considered to increase with the duration of the treatment but was independent of age and of the dose given. However, in a later investigation Branchey *et al*² were unable to confirm the high prevalence figures reported by Shopsin and Gershon.

Up to the present Parkinsonism as a complication of lithium treatment has been reported only occasionally in the literature and we therefore wish to draw attention to this phenomenon by describing two cases under our own care. An added reason is that the cause of these symptoms may easily be overlooked.

Case 1—A woman aged 57 years had been under treatment for nine years with lithium carbonate for a bipolar manic-depressive psychosis. Three weeks after an appendicectomy she was admitted to hospital because of anxiety and insomnia. On admission neurological examination revealed severe rigidity, stiffness of the neck musculature, dysarthria, dysphagia, and cogwheel rigidity of moderate degree in the limbs. In addition there was a suggestion of hypokinesia with only slight tremor. At the time of admission the serum lithium level was 1.2 mmol/l (0.8 mg/100 ml). After the lithium had been discontinued the symptoms subsided over a period of two weeks. Subsequently she has remained well and completely free from extrapyramidal symptoms on a maintenance dosage of lithium lower than the previous one.

Case 2—A man 59 years of age suffering from bipolar manic-depressive psychosis had been under treatment with lithium for seven years. He had also received neuroleptics and tricyclic antidepressants for periods. Extrapyramidal symptoms had not previously been observed. He was admitted to hospital because of lassitude and attacks of diarrhoea. On admission there was some impairment of alertness, slurred speech, and unsteady gait. Before admission, in addition to lithium carbonate, he had been kept on haloperidol 2-3 mg daily. Both drugs were discontinued on the day of admission. During the first few days after this he

developed a Parkinson-like picture with pronounced rigidity of cogwheel type, principally in the neck and arms, forward-leaning gait, short steps without related movements, and hyper-salivation, but no tremor. The initial serum lithium level was 1.9 mmol/l (1.3 mg/100 ml). The symptoms regressed completely over a period of about two weeks. It was subsequently possible to restart haloperidol and lithium in reduced dosage without any recurrence of the extrapyramidal symptoms.

Earlier descriptions^{3,4} of patients with lithium intoxication also include symptoms of extrapyramidal type, to some extent resembling those we have observed. In our two patients, both under treatment with lithium for many years and in whom similar symptoms had not previously been observed, moderately raised serum lithium concentrations were associated with severe rigidity, most evident in the rostral musculature. Stiffness in the face and neck, difficulty in swallowing, and dysarthria were the most prominent features. The limbs showed the cogwheel phenomenon. In both cases the element of tremor was inconspicuous, but there was slight hypokinesia. This picture of extrapyramidal symptoms thus departs in many respects from that of Parkinson's disease and that seen in neuroleptic treatment.

Dalén and Steg⁵ observed that lithium reduces hyperkinetic symptoms both in choreic patients and in those treated with levodopa for Parkinson's disease and also that it has a tendency to aggravate the symptoms of Parkinsonism.

The occurrence of extrapyramidal symptoms in connection with lithium treatment may, at least in part, be due to an inhibition of transmission in the dopaminergic conduction system in the central nervous system. This effect might well include a reduction of the sensitivity of the dopamine receptors. In our view there is as yet no definite proof that the observed extrapyramidal symptoms are dependent on the duration of the treatment, but attention should be directed to this question. It may be that some underlying or predisposing cerebral dysfunction is a necessary condition for the appearance of these symptoms.

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¹ Shopsin, B, and Gershon, S, *American Journal of Psychiatry*, 1975, 132, 536.

² Branchey, M H, Charles, J, and Simpson, G M, *American Journal of Psychiatry*, 1976, 133, 444.

³ Stern, R L, *Journal of the American Medical Association*, 1949, 139, 710.

⁴ van der Velde, C D, *American Journal of Psychiatry*, 1971, 127, 1075.

⁵ Dalén, P, and Steg, G, *Lancet*, 1973, 1, 936.

Pyloric stenosis and sustained-release iron tablets

SIR,—The case reported below gives an interesting and salutary warning about the possible effects of giving long-acting iron tablets to patients with a history of peptic ulceration or long-standing dyspepsia.

The patient, an arthritic spinster of 74 who was known to live on a diet of cake and Maltesers, was started on treatment with Ferrogradumet C for a