"piss pills"—most commonly frusemide without potassium supplements. The diuretics may be taken only before the weigh-in, or ingested regularly. Those who do the latter complain of the decrease in efficacy which is a natural consequence of potassium depletion. Purgation is often practised on the morning of the race with potassium depletion consequent upon its effects.

Although hyperkalaemia is more dangerous any change in the potassium status of the individual may change his E.C.G. and those doctors who have jockeys as patients should be aware of the incidence of self-medication.—I am, etc.,

J. A. MUIR GRAY

Health Department,
City of Oxford

Care of the Mentally Sick

SIR,—Is it not time that the overworked theoretical phrase "community care" with reference to the mentally sick (1 July, p. 2) received a precise explication of what is to be involved in practice? In one sense the community cares as much for the mentally sick when they are in a thousand-bedded unit as in small dispersed units of 20 to 50 beds, the community must carry the financial burden in either case. The vital questions, which have not been squarely faced, are: Will the patients in the new small units receive better medical attention? Will the nursing staff be better qualified, kinder, more compassionate? Will better facilities for occupation and recreation be available?

To answer these questions the "community care" enthusiasts fail to provide any reliable evidence.—I am, etc.,

I. ATKIN

Weybridge,
Surrey

Acute Infective Gastroenteritis

SIR,—I read with interest your leading article on acute infective gastroenteritis (17 June, p. 668), especially the paragraphs relating to the use of antibiotics.

I join with those who support the use of antibiotics in the acute stage of infantile gastroenteritis if an enteropathogenic *E. coli* is implicated. While antibiotic therapy in a mild case of *E. coli* gastroenteritis doubtless makes little difference, I believe a correctly selected antibiotic is of critical value when an *E. coli* type is epidemic and producing severe, relapsing, and life-threatening illness.

Your leader mentioned "that there was some evidence from the Manchester outbreak in 1968 that a few children on gentamicin fared better than those on other antibiotics," but did not say that the putative pathogen in that outbreak was *E. coli* 0114, the organism being sensitive to gentamicin and colomycin but resistant to sulphonamides and to eight other antibiotics tested.¹

The worst affected babies in the Manchester outbreak pursued a relapsing course with only temporary benefit from repeated rehydration; jaundice and a tendency to bleed occurred later in some of the fatal cases.¹

In April 1969 a fatal case of similar clinical type to the above came under my care in Coventry, after repeated relapse and a

month in hospital, terminal melaena occurred and the liver at post mortem showed extreme fatty change. No enteropathogenic *E. coli* were isolated. Shortly afterwards typing serum became available for *E. coli* 0114 and in the succeeding five months this organism was isolated from 10 babies with diarrhoea—including one case where *E. coli* 0114 and 0111 were simultaneously present. Several 0114 isolates were reported sensitive to gentamicin only, others to colomycin and gentamicin only, and one to gentamicin and cotrimoxazole. In two cases diarrhoea ceased on admission before treatment began but continued in the remaining eight. All 10 cases were given a course of oral gentamicin and nine made a good recovery without relapse—in one such case several relapses had occurred before gentamicin was given. One baby had malabsorption, became marasmic, and died, and the pancreas at post mortem showed changes consistent with fibrocystic disease.—I am, etc.,

J. F. GALPINE

Coventry

¹ Department of Health and Social Security, *Report on Gastro-Enteritis in Manchester*. London, H.M.S.O., 1969

Duodenogastric Reflux and Pyloric Surgery

SIR,—Mr. T. Kennedy and others (13 May, p. 371) raise the question of the effects of pyloric surgery on reflux from the duodenum to stomach. Having studied this point with the late Mr. W. M. Capper I have reported¹ some provisional conclusions. The normal pylorus shows a consistent ability to prevent duodenogastric reflux, though this competence is at fault in gastric ulceration and other dyspepsias.² In view of the damaging effect of duodenal juices on the stomach it is of some importance to consider the changes produced by pyloric surgery in relation to reflux phenomena. Do pyloroplasty and pyloric excision precipitate, increase, or reduce reflux from duodenum to stomach?

After vagotomy and pyloroplasty, solid material is evacuated more slowly and fluids more quickly than before operation. The mixing ability of the stomach is reduced following surgery involving the pylorus, since gastric retropulsion is impaired. Gastric mixing is reduced, and distal gastric evacuation is improved. When marked the result is seen as dumping. A corollary of this effect must be that any material regurgitated from duodenum to distal stomach is evacuated, rather than mixed, with gastric contents.

The subject has been partially clarified by personal radiological observation of gastroduodenal movements in 30 patients after pyloroplasty and in 15 with pyloric resection (Bilroth I procedures). Studies were facilitated by fine duodenal intubation in each case for the introduction of contrast medium. Radiological studies of reflux in, for example, patients with gastric ulcer indicate that the quantity of reflux is to a great extent determined by systolic contraction of the duodenal cap, which may be compared in its pumping action with a chamber of the heart. If the pumping action is destroyed by pyloroplasty or pyloric excision, the ability of the proximal duodenum to produce reflux is reduced considerably.

To summarize, widening the gastroduodenal junction probably produces four effects in relation to reflux: reduction in

quantity of reflux, reduction in force of reflux, less mixing of regurgitated material with gastric contents, and more efficient evacuation of regurgitated fluids. Surprisingly, therefore, surgical procedures involving the pylorus, even when combined with vagotomy, may be expected on physiological and clinical grounds to reduce rather than encourage the force, quantity, and effect of reflux from the duodenum.

Reduction in acid secretion to subnormal levels by vagotomy appears to be a contributory factor to the healing of a gastric ulcer following vagotomy and pyloroplasty. If reflux from duodenum to stomach is a factor in the aetiology of gastric ulceration, the changes produced by pyloric surgery are also likely to be of importance in ulcer healing.—I am, etc.,

JOHN O. KILBY

Department of Surgery,
Gloucestershire Royal Hospital,
Gloucester

¹ Kilby, J. O., *Gastroenterology*, 1970, 58, 593.
² Kilby, J. O., M.S. Thesis, 1971.

Sleep and a Bedtime Beverage

SIR,—Continuing the saga of "sleep and a bedtime beverage" I feel encumbered to make one final rejoinder to Dr. I. Oswald's criticism (1 July, p. 48) of my attack (10 June, p. 652) on his choice of controls (20 May, p. 431).

The conclusions drawn from the relevant trials are not under suspicion. It appears that a hot drink of milk and Horlicks before retiring has a beneficial effect on sleep. I ask only whether this effect is realized with hot milk alone and/or Horlicks made with water or whether the combination of milk and Horlicks powder form an integral part to such an accomplishment. Certainly, as Dr. Oswald suggests, it would be nice to incorporate into the design other proprietary food drinks, bread and cheese, fish and chips to name but a few gastronomic delights, but here our course deviates from that initiated in the trial. As I see it there are but two substances under test—milk and Horlicks. Let each be investigated.—I am, etc.,

AVIVA PETRIE

Department of Medical Statistics
and Epidemiology,
London School of Hygiene and
Tropical Medicine,
London W.C.1

Sex and the Single Girl

SIR,—Drs. C. McCance and D. J. Hall have given a very clear account of their commitment to liberal moral attitudes (17 June, p. 694). It is very surprising, therefore, to read their opinion that a contraceptive service should be given by a morally uncommitted doctor—a proviso which would exclude those who have a point of view on moral standards, including themselves.

They say that the patient must get what she came for, although the "moral" doctor is to be allowed a short speech on morals to save his conscience. Your rather trendy leader of the same day (p. 671) obviously agrees. I presume that if the "moral" doctor does not wish so to perform then he must remove himself to a specialty where his views do not offend public moral attitudes. There are many doctors who believe that obedience