charged between the second and the sixth day from the Jessop Hospital for Women 158 were satisfied, even enthusiastic, with the arrangements, 28 were doubtful (nearly always because of inadequate help in the home), and only 13 said they were not satisfied. One felt unable to give an opinion, having been readmitted with secondary post-partum haemorrhage. In practice, many patients specially ask to be booked for 48 hours, and there are a few who should be confined in hospital for medical reasons who are clearly very unwilling to come in unless short stay is promised.

Unlike Sir Andrew Claye I believe that for a proportion of patients the deliberate planning for a 48-hour discharge from maternity unit is the correct thing to do, for it provides the patient with the best of both worlds; this arrangement, however, must be planned in advance and must be supported by efficient lines of communication and a real sense of team-work among those providing maternity care. Above all, the patient's home conditions must be suitable for early discharge, and in particular there must be sufficient help to give the mother enough protection from the everyday affairs that she is going to have to take up again soon enough.—I am, etc.,

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Measles Vaccine

SIR,—Dr. W. P. Sweetnam (17 October, p. 1011) mentions a case-fatality rate of over 1% in children under 1 year suffering from measles. This figure must surely be a hospital case-fatality rate. Dr. Miller's survey (11 July, p. 75), the most searching so far, shows a much lower figure—12 deaths in 53,008 notifications at all ages. Should all the deaths have occurred under 1 year of age the case mortality rate would still be well below 1%.

In Belfast during the last seven years (1957–63) there were four measles epidemics. From notifications and medical history of school entrants it is estimated that there were 48,000 cases of measles during the seven years. Hospital admissions amounted to 4%, compared with 1% in Miller's survey. The Registrar-General reports four deaths in Belfast due to measles in these seven years; one male infant under 6 months of age; one girl in the 1–4 years age-group, and three girls in the school age-group (5–14 years). The last epidemic, in the winter of 1962–3, with an estimated 12,000 cases, resulted in no deaths.

Hospital admissions emphasize the social aspects of this disease; almost 90% were from homes in the social classes 4 and 5.

To improve this situation a measles vaccine would require to give high, long-lasting immunity, noting that in Belfast the death rate is higher in schoolchildren than in the pre-school ages. Equally it would require to be universally acceptable in view of the social gradient. It would probably be acceptable only as a component of a combined vaccine.—I am, etc.,

W. J. MCLEOD,
Deputy Medical Officer
of Health.

Health Dept.,
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Grease-gun Injury

SIR,—I would like to add two further cases of grease-gun injuries to Mr. Michael G. H. Smith's article (10 October, p. 918) that I have had in the last two months. One of these cases in particular demonstrates the need for wide exploration.

Case 1.—A 38-year-old garage proprietor was using a guarded Zerk nozzle, and while feeling blindly for the nipple injected a small quantity of grease into the pulp of his left index finger. We saw him two days later and he was treated with antibiotics for a further two days with very little result. The pulp space was then laid open completely—an area of about 1 sq. cm.—and a quantity of grease removed. A fortnight later this had healed satisfactorily.

Case 2.—Again a motor mechanic, who on 21 September 1964 was using an unguarded Zerk nozzle when he injected grease into his right index finger. His general practitioner sent him to us the same day. There was a small puncture wound in the lateral side of his index finger distal to the distal interphalangeal joint, and the distal portion of his finger was slightly swollen. Under local anaesthesia this pulp space was opened by a lateral and distal incision exposing grease extending across to the medial border of his finger. It was then obvious that the lateral incision had to be extended to the base of the finger and the flap turned medially, exposing the whole anterior surface of this flexor sheath and the area medial to this. All this area contained grease. After removal of the foreign material this flap was replaced and loosely sutured. The hand was immobilized for five days and antibiotics given. Sutures were removed on the seventh day. When the initial local infection and oedema had settled physiotherapy was commenced on the sixteenth day. By the twenty-first day an area of skin 1 cm. by $\frac{1}{2}$ cm. at the distal corner of the flap had become necrotic and separated. One month after the accident, with the wound healing satisfactorily, he has already recovered about 75% of active and full passive movements.

I would like to thank Mr. P. W. Seargeant for permission to describe these cases.

—I am, etc.,

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King's Lynn, Norfolk.

Attitudes to Nursing Among Intelligent Schoolgirls

SIR,—I would like to comment on the above article (17 October, p. 1001), as I consider this survey gives a very misleading picture of the efforts to recruit student nurses in the West Riding of Yorkshire. Although I am able to quote only accurate information about the hospital of which I am matron, I know that many of my colleagues would dispute the statement that relations between the schools and hospital boards are tenuous and that the hospitals make so little effort to reach the school-leavers by literature and invitations to visit hospitals.

Between September 1962, when the schools reopened, and January 1963 342 letters and 270 brochures of the School of Nursing were sent out from this hospital alone to headmistresses and headmasters. During the same period 947 girls from 43 different schools visited this hospital, and an additional 114 Girl Guides and youth-club members were given an opportunity of seeing the work in hospital. Between February 1963 and December 1963 a further 484 schoolchildren

from 19 schools and 30 other young people visited the hospital. The above-quoted figures are relevant to the period during which the survey was made, but I would add that such contact with the schools has been in operation for many years.

Since April 1962 careers conventions during the Easter holiday have been organized in conjunction with the Leeds grammar schools and the West Riding Education Authority. These conventions have proved so popular that they are now held for two whole days twice a year, during the Easter and Christmas school holidays.

As many of the candidates whom I interview inform me that they have visited their local hospital from school, I find it hard to accept the findings of a survey undertaken in six schools as being representative of the situation in the whole region. Granted many of the schoolgirls who have visited us are not really interested in nursing, and it is impossible to assess how many in fact have their interest stimulated during these visits.

One final point I would dispute is the statement that 260 girls interested in nursing is more than adequate to satisfy existing needs for the hospitals in the area defined. The number is in fact barely adequate for the needs of the three nurse-training schools in Leeds alone, and there are several other large hospitals in Bradford and Wakefield.^{1,2} One wonders upon what evidence the authors reached their conclusion, as I and my colleagues are not aware of having been consulted regarding our student needs or of providing information of the numbers of student nurses at present recruited from within this area, or the numbers of local schoolgirls who go to other parts of the country, particularly London, to train.—I am, etc.,

G. E. WATTS,

Matron,
The General Infirmary at Leeds.

Yorkshire.

Hepatic Amoebiasis

SIR,—Your leading article on hepatic amoebiasis (25 July, p. 206) deals with a very interesting subject. You are absolutely right in saying that it has always been difficult both to diagnose and to understand hepatic amoebiasis, also that problems in this field remain. Immediately afterwards, however, you specify the problems as being abscess of the liver and amoebic dysentery. Both these forms are acute episodes very common in tropical countries, and there are many doctors in those countries who are well acquainted with their clinical symptomatology and treatment.

The real problem lies in the chronic forms, which are mainly ignored by doctors in non-tropical countries. There are institutes of tropical diseases in which there are people who are very experienced parasitologists, but I would like to know very much how many doctors would think of sending a patient to these institutes unless he has been in the tropics? And what clinical experience do these parasitologists have? In all the chronic forms of the disease who thinks of searching for amoebae?

Whenever and wherever in the world the parasitologists have looked for amoebae in the stools they have found them—even in the Arctic Circle. It would be worth while to have these different statistics published from time

to time, not only in bulletins of tropical diseases but also in medical journals of wider circulation. For example, how many European doctors are aware that the largest statistics come from the United States, where among 118,156 persons examined positive stools were found in 8.1%?¹ In other words, at least 15,000,000 citizens of the United States are harbouring amoebae in their bowels. Approximately the same percentage is probable among the English, French, and German populations. It will, of course, be said that these people are "healthy carriers"; healthy in that they do not have dysentery or liver abscess, but are they really in good health? From Scotland cases have been reported of people who have never left the British Isles, with a positive colon biopsy.² Liver abscesses are found in patients who have never left their non-tropical country. Seven cases of liver abscess were recently detected with radioisotopes in a Detroit Hospital and the findings were published.³

Cirrhosis of the liver is one of the greatest causes of death, and in a great percentage of these cases the cirrhosis is of unknown origin. There is, however, a connexion—even though this fact is not considered proved—between chronic amoebic hepatitis and cirrhosis of the liver.⁴ Taking into consideration all the above instances would it not be useful to turn the physician's attention to a closer examination of these facts? You write that the Annual Epidemiological and Vital Statistics for 1957, published by the World Health Organization, put amoebic dysentery thirteenth as the cause of death. Who could tell what would have been the place given in the statistics if not only amoebic dysentery but all forms of amoebiasis were included? Who knows the frequency and the importance of the ill-health and invalidism of these patients, not only in underdeveloped countries but also in Europe and the United States of America? I agree absolutely with your last sentence that "certainly it is a disease whose importance must not be forgotten and on which continued research, is needed."⁵ I am, etc.,

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Spontaneous Biliary Peritonitis

SIR,—In 1961 Shanahan¹ reported a case of spontaneous biliary peritonitis in a patient who had acute pancreatitis. It was suggested that acute pancreatitis is probably the most likely cause of spontaneous biliary peritonitis. Fleming² reported another patient who had spontaneous biliary peritonitis in association with acute pancreatitis. I have operated on three patients with spontaneous biliary peritonitis in the last two years and I would like to report the findings in these three cases.

Case 1.—A. B., male, aged 48 years, was admitted to Birmingham General Hospital under

Dr. J. Malins on 16 February 1963 with severe abdominal pain. The patient had been treated since December 1958 with insulin for diabetes. He was also suffering from polyarteritis nodosa with hypertension and neuropathy. He developed a bilateral wrist drop in 1960. On admission to hospital a provisional diagnosis of perforated peptic ulcer was made and an operation was performed. The whole peritoneal cavity contained pints of bile and the gall-bladder was grossly distended. The peritoneum of the posterior abdominal wall was thickened but there was no fat necrosis. A cholecystostomy was performed. After an initial recovery the patient died on the 10th post-operative day. At post mortem the pancreas appeared macroscopically normal, but on section there was an area of necrosis 3×2 cm. in diameter. Histologically, there were multiple areas of necrosis throughout the pancreas besides the large area already mentioned. There were no areas of necrosis in the spleen or kidney.

Case 2.—C. D., male, aged 47 years, was admitted to Dudley Road Hospital under Mr. L. W. Aldridge on 6 January 1964. His chief complaint was severe epigastric pain, and he had a past history of recurring attacks of abdominal pain for two years. The serum amylase was 188 Somogyi units. A provisional diagnosis of perforated duodenal ulcer was made. On operation the abdomen contained a large amount of bile and the gall-bladder was grossly distended and slightly thickened. No stones could be felt anywhere. The pancreas felt normal. A cholecystostomy was performed and the patient made an uneventful recovery. In the follow-up clinic the patient again complained bitterly of recurrent epigastric pain but refused to have any further investigations.

Case 3.—E. F., a female, was admitted to Dudley Road Hospital under Mr. P. G. Bevan with a week's history of severe epigastric pain. At laparotomy she was found to have biliary peritonitis, with a large amount of bile in the lesser sac with thickened peritoneum of the posterior abdominal wall with no stones in the gall-bladder. Blood was withdrawn from the patient while in the theatre and the serum amylase was reported as 3,600 Somogyi units. Cholecystostomy was performed and at the time of writing the patient is still in the hospital.

In all these cases I cannot make a better diagnosis than that each had an attack of acute pancreatitis. Case 1 was proved at necropsy. At laparotomy in Case 2 all the abdominal organs were found to be of normal appearance and colour, and I think clinically he is suffering from recurrent attacks of pancreatitis. In Case 3 the operative findings and biochemical tests certainly suggest an attack of acute pancreatitis.

I am grateful to Dr. J. Malins, Mr. L. W. Aldridge, and Mr. P. G. Bevan for allowing me to report these three cases.

—I am, etc.,

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A. K. DHAR.

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Work After a "Coronary"

SIR,—The leading article entitled "Work After a 'Coronary'" (19 September, p. 703) was of great interest to me. As chief cardiologist of the largest Union Health Center in the United States I am very much concerned with the rehabilitation of workers following a myocardial infarction. While I find myself in agreement with most of the views in this article I cannot help but take exception to one statement—namely, "there is no drug therapy which is known to be of convincing

benefit . . ." (in the treatment of myocardial infarction).

Starting from the idea that any drug which causes vascular dilatation with increased collateral circulation and decreased ischaemia should prove itself beneficial in the treatment of coronary occlusion, I set up a double-blind study of male patients experiencing their first myocardial infarction. Peritrate SA (pentaerythritol tetranitrate) 80 mg. given twice daily was chosen as the active agent. An analysis of the first 150 cases (the study is still in progress) shows that there is a definite and statistically significant decrease of mortality and morbidity in patients receiving 160 mg. of Peritrate daily. This applies to the immediate post-infarction period as well as to the later course of the disease.

A detailed report of the findings in the first 100 cases was presented at the June 1964 meeting of the American College of Angiology in Las Vegas and will appear in print in the November issue of *Angiology*. I hope that further investigation in the use of vasodilators will support my conclusion that they are beneficial in the treatment of myocardial infarction.—I am, etc.,

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A. OSCHAROFF.

Preventing Coronary Attacks

SIR,—The prognosis in coronary thrombosis is once more in the news,¹⁻³ and it is said that after a coronary incident the patient should be told not to undertake any heavy or fatiguing work. But surely, as Lovell says,¹ this is closing the stable door after the horse has bolted, for is it not true to say that these factors can precipitate a coronary thrombosis in a suspect subject? We are convinced that some coronary incidents, at any rate, are avoidable. Let us give you some examples.

There is the man who has done a sedentary job all his life, who retires at the age of 65, and decides, probably because of expense, to double-dig his garden or decorate his house. Result, coronary. How often does one hear it said, "I have never worked so hard since I retired."

Then there is the man in his sixth decade who has been used to decorating his own small house and while he has a bit of free time or a holiday decides to do several rooms at once. His time being limited, he works very hard, feels very fatigued, and may have a coronary. If he had been able to space his work out and take it easy then probably all would have been well, but, like all such men, they have to do their decorating and so forth in the only time available to them, week-ends and holidays. It would seem to be true to say that hard work never did anyone any harm if it is one's regular work, but not if it has to be telescoped into a week-end or holiday. It would seem that mowing a lawn with a hand-mower when the grass is long is often a coronary blocker.

We have also come across examples of people, previously well, who have had an exceptionally heavy meal at a banquet which has precipitated a coronary. It used to be said in Chicago that the ending of the Day of Atonement was the signal for admissions to the medical beds in hospitals. Of course the person who has a strong family history of angina or premature cardiac death or who is hypertensive or who is overweight is at increased risk.