objective assessment be attempted of boosters and boosted, denigrators and denigrated, not only in terms of institutions and individuals but of the most violently disputed therapies, so that much better than "rough justice" be arrived at.—I am, etc.,

Colchester, Essex.

H. JACOBS.

Battered Baby Syndrome

SIR,—I would like to add another similar case to Professor Keith Simpson's account of the "battered baby" syndrome (6 February, p. 393). In this instance a young man, 21-year-old Christopher Noel Gallagher, was sentenced to five years' imprisonment for the manslaughter of Michael McCormack, aged 18 months.¹

On 5 November 1964 Michael's body was brought to hospital by his mother and Gallagher, with whom she was then living. The child was said to have been found lying dead on the bedroom floor. The case was reported to the Coroner.

At post-mortem I found that the liver was ruptured on the inferior border, posteriorly in the caudate and quadrate lobes, and there was also a large laceration in the interior of the liver. There was a haemorrhage into the right suprarenal gland and a retroperitoneal haemorrhage. In addition there was a fracture of the shaft of the right humerus, and severe and extensive bruising of the right forearm, the dorsum of the left hand, and the dorsum of the right foot. There were many smaller superficial bruises, which varied in age, on the forehead, face, chest, abdomen, and all four limbs.

At the trial at the Leeds Assizes on 22 January it was reported that Gallagher had discovered that Michael's father (who was not the mother's husband) was coloured, and from then on he appeared to have ill-treated the child. Mr. P. Stanley-Price, Q.C., defending, is reported to have said that Gallagher had pleaded guilty because "in smacking the child because of its constant crying, he had lost his temper and head and struck Michael in the stomach, and that presumably was the striking which gave rise to the liver injuries." Mr. Stanley-Price questioned whether the child's mother had not been responsible for some of the bruises.—I am, etc.,

Department of Pathology,
Royal Infirmary,
Bradford 9, Yorks.

W. M. EDGAR.

REFERENCE

- ¹ *Yorkshire Post*, 23 January 1965.

Iatrogenic Vertebral Arteriovenous Fistula

SIR,—Dr. Hugh Garland and others in their Medical Memorandum (13 February, p. 429) record that following diagnostic vertebral arteriography their patient could tolerate her bruit more easily. It would be of interest to learn if this subjective improvement was born out by auscultatory findings.

In such a context I am reminded of a patient of my own,¹ a woman aged 52, also with a vertebral-artery abnormality, whose bruit was greatly diminished following on arteriography and had not again increased in volume over a three-year follow-up period. Krayenbühl's case,² a 60-year-old woman

with an external-carotid-artery malformation, is recorded to have lost her bruit for three days following angiography. Faeth and Dueker's patient,³ already quoted by the authors, showed a similar phenomenon, with the bruit completely abolished for an unrecorded length of time.

Hence, I would like to hear of any further instances of such "therapeutic" arteriograms.—I am, etc.,

London W.11.

KLAUS HEYMANN.

REFERENCES

- ¹ Heymann, K. G., *Brit. J. clin. Pract.*, 1964, 18, 99.
- ² Krayenbühl, H., *Münch. med. Wschr.*, 1961, 103, 2185.
- ³ Faeth, W. H., and Dueker, H. W., *Neurology (Minneapolis)*, 1961, 11, 492.

Paterson-Kelly Syndrome in Adolescence

SIR,—The diagnosis of post-cricoid webs would have been more convincing in Dr. M. D'A. Crawford and his colleagues' patients (13 March, p. 693) had they been confirmed by direct inspection (hypopharyngoscopy). The notion that webs anywhere would disappear with medical treatment alone—that is, without dilatation and mechanical interruption—will be received with scepticism by surgeons who know from bitter experience how resistant post-cricoid webs are even to repeated dilatations combined with iron therapy.—I am, etc.,

Liverpool 1.

FRANCIS BAUER.

Difficulties of Early Diagnosis

SIR,—The belief that earlier attendance at the surgery means earlier diagnosis is aired incessantly, not only by a growing number of politicians but also by many of our colleagues. That this concept is by no means always true is illustrated by the following cases from my practice:

Case I.—Female, aged 67 years. Hypertensive. Main complaint frequency of micturition. First attendance for this complaint 25 February 1963. Referred to surgeon 4 March 1963. No abnormalities found on full investigation. Eventually saw another surgeon who performed a laparotomy 15 July 1963. Extensive invasive carcinoma of descending colon found and resected. (Five months after first attendance.)

Case II.—Male, aged 38 years. Main complaint diarrhoea for 14 days. First attendance at surgery 22 February 1964. Referred to physician 7 March 1964. No abnormal signs found clinically or on investigation. Referred by physician to surgeon May, 1964; carcinoma of rectum diagnosed. Abdomino-perineal resection July 1964. (Five months after first attendance.)

I could point to a number of similar cases which have occurred in this practice in the past two years.

The purpose of writing this letter is to emphasize once again that early diagnosis may be impossible even if the necessary time and facilities for investigation are available. The average general practitioner in the present set-up has neither time nor diagnostic aids at his disposal. Is it, therefore, reasonable to exhort the public to visit the doctor "earlier" without ensuring that he has both these essential commodities?—I am, etc.,

Rainham, Essex.

M. KEHR.

Palpation of Umbilical Cord Through Abdominal Wall

SIR,—Palpation of the umbilical cord through the abdominal wall during the course of labour is, I believe, a rare event and I have been unable to find a similar instance in the literature.

Mrs. A. B., aged 25 years, had two previous pregnancies, the first terminating in a lower-segment caesarean section for placenta praevia at 35 weeks. Three years later she experienced a full-term normal delivery. In the present pregnancy the membranes were ruptured artificially because of post-maturity at 42 weeks. A small quantity of clear liquor drained and four hours later weak uterine contractions began. An hour later the foetal heart was found to be down to 60 beats per minute, recovering to a normal rate during the course of the next three minutes.

During palpation of the abdomen at this time a pulsation was noted at the level, and to the left, of the umbilicus. This palpation could be traced over a linear course for 2-3 in. (5-7.5 cm.) in the sagittal plane. It felt quite superficial and was noted to be synchronous with the audible foetal heart and asynchronous with the maternal pulse. The pulsation was not obliterated during a contraction (these were weak), and the slowing of the foetal heart during each could be detected with the finger. Also, pressure over the pulsation between contractions for 15 seconds produced a foetal bradycardia. There was no clinical evidence of uterine rupture.

The patient was advised to have a caesarean section for the relief of foetal distress in early labour. A repeat lower-segment operation was performed. At this the pulsation was palpable through the uterine wall. A live child was delivered in good condition. The placenta was found on the posterior uterine wall and no deficiency was noted of the anterior uterine wall or of the abdominal wall. The umbilical cord was of normal proportions and was thought to have been lying between the foetal flank and uterine wall.

My purpose in writing is to inquire if any of your readers has had a similar experience.—I am, etc.,

LLOYD RANKIN.

Department of Obstetrics
and Gynaecology,
St. John's Hospital,
Chelmsford, Essex.

Screening Test for Urinary Amphetamine

SIR,—Recent correspondence has drawn attention to the great difficulty involved in the estimation of amphetamine in either blood or urine. A simple test is described below, which is a general one for ether-soluble aromatic amines (of which amphetamine is one). It is sensitive enough to detect a concentration as low as 1.0 µg. amphetamine per 1 ml. of urine, and therefore is positive with urine from patients on therapeutic doses of amphetamine. The test may well be useful as a rapid negative screening test to be used on urine obtained from patients suspected of being amphetamine addicts who have just been admitted to hospital for investigation. It is not useful in its present form if positive results are obtained, since other ether-soluble aromatic amines also give positive results.

Test.—50 ml. of urine is made alkaline to phenol-red with 10% sodium hydroxide and extracted with 20 ml. of diethyl-ether in a separating funnel for at least 1 minute (i.e., 100

complete inversions). The aqueous phase is then discarded, and the ether extract is then partitioned extracted with 50 ml. of distilled water for half a minute. This is repeated with a further 50 ml. of distilled water.

The ether extract is decanted into a test-tube, free from any water, and evaporated to 0.1–0.2 ml. by means of immersion in a water-bath and use of an air-condenser. Since it is important that the ether extract is not completely evaporated (when any drug present may be lost by volatilization) it is probably easier to evaporate the ether in two stages, using a smaller tube for the second stage.

The ether extract is seeded completely on to a sheet of Whatman No. 1 chromatography paper with a 0.1 ml. micropipette, the area of seeding not exceeding 1.0 cm. in diameter.

A 1.0 g./100 ml. solution of *p*-dimethyl-amino-benzaldehyde in methanol is seeded, sprayed, or dropped on to the extract spot and the paper is heated in a hot air oven at 90–100° C. for three minutes. A positive result is indicated by the development of a yellow spot, and it is simple to run control positive and negative tests in parallel with a number of urine extracts from patients.

—We are, etc.,

Department of Pathology,
Frenchay Hospital,
Bristol.

R. D. EASTHAM.
P. A. G. COX.

Work for Married Women Doctors

SIR,—I have read with interest Dr. Valerie Y. Muir's letter (27 February, p. 591). I am in agreement with her findings, having for the past 10 years tried without success to find regular part-time work.

I should like to make one addition to the possible solutions. For most specialties and in general practice the years that a woman may spend in full-time domesticity while rearing children must be counted as wasted, but in local authority work, particularly in the fields of child welfare and mental hygiene, these years may become an asset. After these years of enforced retirement, if a woman is prepared to work for a D.P.H. would a local authority be prepared to allow her to share a full-time job with another woman in the same position? It seems to me by this arrangement all parties might benefit.—I am, etc.,

D. ELIZABETH FORSYTHE.

Saffron Walden,
Essex.

Rapid Estimation of Blood Glucose

SIR,—Following the article in the *B.M.J.* by Dr. V. Marks and Mr. A. Dawson (30 January, p. 293) describing the use of Dextrostix for the estimation of blood glucose, I would like to give details of a simple system I have devised to expand the range of the method.

Using the Dextrostix plus a bottle of normal saline and an ordinary Mantoux syringe, it is possible to estimate blood sugar up to and above 1,000 mg./100 ml. Blood is taken from the patient and kept in the standard 1-ml. fluoride tube. Initial estimation having been carried out, blood is drawn up into the Mantoux syringe to the 25 mark and then diluted to 100 using the normal saline. Testing on the strip can again be carried out. The system of dilutions is performed discarding part of the syringe contents and further diluting the solution until the stick reading is brought within, preferably, the 40–130

mg./100 ml. range, since this would appear to be the most accurate scale. We have used this technique during the management of diabetic coma, and so far we have obtained close correlation with laboratory determinations of blood sugar and those done on the Dextrostix. The dilution of blood with saline has no obvious effect on the actual colours obtained.

Where 24-hour laboratory investigations are available this relatively inaccurate method would naturally feature as second best, but, nevertheless, it is quick and can be performed by any houseman in minutes on the ward.

The range at present, rather roughly calculated in view of the small number of cases on which we have employed it, would appear to be ± 100 mg./100 ml. at 1,000 mg./100 ml. blood sugar with a descending scale of error as the dilution factor decreases.—I am, etc.,

RICHARD WARBURTON.

Queen's Park Hospital,
Blackburn, Lancs.

Unusual Foreign Body

SIR,—During the recent foggy weather a marine engineer drove his sports car straight into a tree and sustained multiple injuries including a compound comminuted fracture of patella.

At operation, after removal of the fragments of the patella and several blood clots from the outer part of the joint, a detached "piece of bone" was seen, for which no obvious source could be found. The "piece of bone" was picked out and resembled the triangular fragment seen in the fracture of the tibia. After operation the "piece of bone" was seen to be a piece of white plastic. X-ray before operation had not indicated that there was any foreign material in the joint.

The patient could not think of any part of the car from which such a fragment could have been derived. I went along to the garage and looked at the very bent car. The only possible source of the fragment was the bonnet-release knob, which had disappeared.

Subsequently three smaller fragments of plastic material have been removed from subcutaneous tissue in front of the knee-joint.

This occurrence would seem to present still another problem in dealing with multiple injuries from road accidents, and it would seem worth while to try to get the manufacturers either to make all plastic knobs of a material which will not fragment on impact or, if this is not possible, to include in the material at the time of manufacture a radio-opaque substance.—I am, etc.,

North Lonsdale Hospital,
Barrow-in-Furness, Lancs.

A. RONALD.

Services for the Elderly

SIR,—I have been interested to read the further correspondence on my comments (16 January, p. 194) regarding *Services for the Elderly*, and I have been impressed by the failure of each of the correspondents to comment constructively upon the findings. It is a disease of present-day life that the findings of one committee should lead to the setting up of a further committee to corroborate these findings.

None of your correspondents felt strongly that they could have come to any conclusion on the detailed evidence collected by the Committee over the four years they sat, other than that which the majority report puts forward. Can I therefore take the argument a little further?

Is there not a double significance in this report? Firstly, that the time has now come to call a halt to the proliferation of geriatric units throughout the country and to apply the lessons which these units have taught to the everyday practice of medicine. In his letter (20 February, p. 524) Dr. R. E. Irvine has eulogized the work of the general physicians at Lewisham, but for some astounding reason the letter goes on to state that it would be premature to regard their work as creating a precedent in this field. Surely this is less than justice to those whose work has, in part, enabled Lewisham to stand out amongst urban districts.

Secondly—and possibly this is the more important lesson to be drawn from the report and one which has not been mentioned in any of the letters—is simply that where pressure, however indirectly, is brought to bear upon local authorities to supply a domiciliary and community service which will cope with demands of general practitioners in the home, then at least a large part of the geriatric problem melts away. I would like to pay tribute to my colleagues in general practice in the Lewisham area who have been able, with energy and ingenuity, to keep patients at home where more often they are happier and, I believe, more contented.

Might I, in closing this letter, comment upon Dr. A. N. Exton-Smith's reference (13 February, p. 542) to preventive medicine amongst the elderly? He has, of course, given the lie to his argument by claiming that "many elderly patients receive treatment from their general practitioners . . . only when their clinical disorder is advanced." It is precisely because the field of the family doctor is in the home and amongst people of all ages that he is best placed to detect early illness, whether it be degenerative or otherwise. It may surprise Dr. Exton-Smith to know that this is done on a large scale, and would be done on an even larger scale were it not for the problems of the more extensive development of the "domiciliary health team," towards which some of us at least are hopefully working.—I am, etc.,

London S.E.6.

R. LL. MEYRICK.

Disinfectants in Hospitals

SIR,—The report "Use of Disinfectants in Hospitals" by the Public Health Laboratory Service Committee on the Testing and Evaluation of Disinfectants (13 February, p. 408) is the result of a careful