craft" by the institution of simple lecture demonstrations for both parents, these being developed as a part of the antenatal service. This interest can be further developed in hospital in the case of a mother with a difficult or premature infant by making her responsible, under supervision, for the entire care of her baby during the additional period of hospital stay allowed for the infant to become established. The hospital almoner also is of great assistance in the welfare of both mother and infant. It is our practice to have the home circumstances of each case investigated by the almoner during the lying-in period, and to be satisfied that sufficient home help and reasonable home conditions exist before discharging the mother and infant from hospital. Although Dr. Lewis states that the liaison obtained by notifying the Health Department of such an infant's discharge and requesting an early visit from the health visitor is ineffective, we have found that, in practice, by ensuring a home visit on the day following discharge, the continuity of supervision of the mother as to the care of her infant is preserved with reassuring results.

We feel, therefore, that the major responsibility in the establishment of small, difficult, or premature babies after birth lies primarily with the maternity unit, and that such a unit must be fully satisfied, when such infants are discharged home, that they are fit to withstand the less suitable conditions in the average household, and that in addition their mothers must be fit, at least physically, to look after them.—We are, etc.,

I. M. HARKNESS.
J. B. COCHRANE.

Nottingham.

"Anaesthesia" or "Analgesia"?

SIR,—Dr. F. W. Roberts in his letter (Dec. 28, 1946, p. 1007) raises two points to which I feel I must reply in self-defence. First, he states that "novocain" and other local anaesthetic agents do not abolish touch, deep pressure, and thermal sensibility, and are therefore true analgesics. I believe that they abolish all these and are therefore true anaesthetics, which is the base of the reasoning that appears faulty. Authority for this may be found in any textbook, and I would quote Langton Hewer's *Recent Advances in Anaesthesia and Analgesia*, fifth edition, p. 143, where reference to the literature is given. Secondly, if I had meant intravenous anaesthesia I would have said so. Reference to the slow drip infusion of dilute procaine in glucose saline is given on p. 139 of the same work.

Whether analgesia is an ugly word is of course purely a matter of opinion. It is much more frequently written than spoken, which suggests that others besides myself find it so; and I have not yet heard of its being used as a girl's name, which is a touching tribute to the beauty of the word anaesthesia. As a matter of fact, I find from Liddell and Scott that there is no distinction between the words in Greek, although the adjective derived from analgesia was used to mean "very painful." This might be held by some to justify the use of the word to describe the occasional nerve block which does not "come off."—I am, etc.,

Colchester.

J. N. FELL.

Abacterial Pyuria

SIR,—Dr. D. P. Wheatley (Nov. 30, 1946, p. 837) brought attention to the fact that no mention had been made of penicillin in the treatment of abacterial pyuria. I have treated several of these cases with large doses of penicillin (over 1 million units) and can record only a temporary slight improvement followed immediately by relapse on cessation of penicillin administration. In contradistinction to Capt. Fieldsend, R.A.M.C., I have always found evidence of prostatic infection with the presence of pus cells and a lessened lecithin content in prostatic beads.

Search for the *Trichomonas vaginalis* has been negative on each occasion despite repeated examination for the same. I have always regarded these cases as infection of the bladder trigone by simple extension from a posterior urethritis and prostatitis. Two cases gave a history of non-specific urethritis, for which high urethral lavage had been administered.

I have treated several of these patients with intravenous neoarsphenamine, and, while recording an improvement and later clearing up in the majority, must submit that some

responded only to long-term hospitalization and rest. I should like to add that all were subjected to complete pathological and physical investigation to exclude other causes, and only in the end labelled "abacterial pyuria."—I am, etc.,

Chester.

F. LANCELEY,
Major, R.A.M.C.

Pre-operative Blood Transfusion

SIR,—Many surgeons have wisely adopted the pre-operative blood transfusion to hasten recovery and to minimize the risks attendant upon operation in the anaemic subject. It would seem, however, that some of these surgeons, or their house-surgeons, are unnecessarily delaying the giving of these transfusions until almost the immediate pre-operative period. I would suggest that such a delay, except in a case of active haemorrhage, is not in the best interests of patient or surgeon.

My reasons for making this suggestion will be obvious to all surgeons, but for those who would appear to have overlooked them I append the following: (a) Even under the best conditions a transfusion may be followed by a reaction. This complication is always undesirable, but especially so just before an operation. Even in the absence of reaction a transfusion places a considerable physical and mental strain upon the patient. (b) Attention has recently been drawn in your columns to the value of adequate nutrition during the week or two preceding operation. Anorexia, a frequent accompaniment of chronic anaemia, is often not overcome until the anaemia has been satisfactorily treated. Moreover, it is surely desirable that the patient should be given the advantages ensuing from improved oxygenation of vital organs for a greater period than the 24 hours or less before a major surgical ordeal.

For these reasons I would plead that the transfusion of surgical cases complicated by anaemia should be undertaken at least one week prior to operation. It may be objected that the adoption of such a measure is quite impracticable because of the shortage of hospital beds. It would seem probable, however, that the increased time spent in hospital during this preparatory period would be counterbalanced by the hastening of recovery following the operation. In some instances it may be of value to admit the patient for two or three days only for the transfusion, and then to re-admit for the actual operation.—I am, etc.,

Bristol.

GEOFFREY H. TOVEY.

Conservative Treatment of Perforated Ulcer

SIR,—I was interested in the summation and verdict on the above given in the annotation in the *Journal* of Dec. 21, 1946 (p. 950). During the past three years I have been investigating these cases from the radiological and clinical aspect, and in a paper to the Faculty of Radiologists in June, 1945, I suggested, in view of the observations to date, that the conservative line of treatment should be given a fair trial. The idea was ridiculed at the time and it was with considerable difficulty that some of my surgical colleagues were persuaded to try the method. The investigations were on the acute abdomen with particular reference to the presence of free gas in the peritoneal cavity.

The radiological detection of free gas in the uppermost dependent portion spells only one thing—a perforation somewhere in the gastrointestinal tract. The subdiaphragmatic gas gives us a fairly accurate estimate of the degree of gas-leak and consequently an idea of the size of the perforation. I would be interested to know the views of surgeons as to the value attached to the presence of free gas in the diagnosis of perforation and if they have utilized the volume of gas present as an index of the degree of leak and size of perforation. Assuming there is a gas-leak in the majority of perforations, it would appear to me that the estimation of volume would be of assistance in determining the suitability of the case for conservative treatment or otherwise. The gas may vary from a millimetre to a couple of inches (5 cm.), and a check can be made during the first few hours as to increase or otherwise. Unfortunately there is at present no method of indicating the stoppage of leak, but we can at least indicate any increase. The gas is absorbed slowly and may take, according to the volume, anything from five to fourteen days. The direct or scout x-ray examination should be helpful not only in assessing the degree of leak but also in the differentiation between intra- and retro-

peritoneal perforation—the latter, unfortunately, a more serious drama and with a very high mortality rate.

Two aspects of the radiological investigations impressed me: the number of cases of spontaneous recovery with conservative treatment, and the frequency of perforation in peptic ulcer, without the knowledge of the patient, his medical attendant, or surgeon. Perforation is not always the dramatic picture it is painted and may manifest itself as an acute and transient exacerbation of the ulcer symptoms, when the patient seeks the attention of his relatives, the usual alkaline mixture, and rest in bed before calling his medical attendant. An examination of these cases will reveal minimal free gas—a perforation with rapid sealing. The following morning he is having his breakfast in bed.

I feel confident that peptic ulcers perforate more frequently than we imagine, with quick and transient symptoms, and if a check-up is made in all cases of acute exacerbation of ulcer symptoms free gas will frequently be found. The frequency of the perforating type of ulcer found in routine barium-meal examinations would tend to confirm this, and a careful check-up on the past history may reveal a short period of acute exacerbation of symptoms. The patient may state he remembers a period when he was "doubled up with pain," lasting perhaps for two hours. There is little doubt that he has perforated. Every acute or subacute abdomen should, on admission to hospital, have a scout film of the abdomen, which must be taken in the upright, semi-upright, or lateral decubitus, in order to show free gas or indicate the presence of bowel obstruction. The absence of free gas strongly contraindicates perforation.

My admiration goes to those surgeons who have at least the courage to investigate the field of conservative treatment. Please do not let us precipitously condemn the method; rather let us proceed cautiously with an open and balanced mind, for the treatment is still young, and half a century of surgical tradition is difficult to change. As you state, a perforation is the surgeon's apotheosis, dramatic in the extreme, with the patient gravely ill and shocked. The addition of laparotomy is only too often the last act of the drama, the dropping of the curtain.—I am, etc.,

Hull.

J. E. BANNEN.

SIR,—As you point out in the annotation (Dec. 21, 1946, p. 950) on the conservative treatment of perforated peptic ulcer, the mortality rates disclosed do not compare with those obtainable by surgical closure. There is other evidence against the adoption of this method as a routine procedure. It is not a recent innovation everywhere and has been practised on selected cases in at least two surgical units to my knowledge in Glasgow for over fifteen years.

The treatment is reserved—as Hedley Visick suggests as reasonable—for patients in whom the initial spill is small and the signs suggest that the effusion is not increasing in size. Cases of this type amount to less than 5% of all ruptured ulcers. They are nursed on an inclined plane or in Fowler's position, adequately morphinized, and nourished only through the rectum for forty-eight hours; thereafter a conservative oral regime is started. This method has not had an extended application for the following reasons.

A study of the clinical pathology at operation shows that when a ruptured ulcer seals itself before laparotomy the seal is formed by adhesions to some structure of the biliary tract, commonly either liver or gall-bladder. For obvious reasons these are unsuitable structures to form the floor of a chronic ulcer. Infrequently the lesser omentum, mesocolon, or colon, and only rarely the omentum, fills the gap. The last step in operative closure of a ruptured ulcer is or should be the completion of the repair by the interposition and fixation of a tag or tags of the lesser omentum between the sutured ulcer and neighbouring viscera. This has the double purpose of preventing less desirable adhesions and providing a possible source of enrichment to the blood supply of the ulcer-bearing area.

There is a further consideration in favour of operative closure. The removal by suction of effusion and particulate matter may not be necessary, but if Rutherford Morison's pouch is sucked dry and the suprahepatic spaces similarly evacuated the convalescence is eased by the withdrawal of the highly irritant chyme from the peritoneum, and the incidence

of subphrenic abscess lowered well below that published by Visick for conservative treatment.

In conclusion it is regrettable that Murphy's route for fluid replenishment is *démodé* among surgeons. When complete gastric rest is required absolute starvation combined with a constant-drip rectal saline will maintain the fluid balance more readily, more equably, and with greater safety to the patient than the alternative method. Hypoproteinaemia can if necessary be dealt with by intravenous plasma or reconstituted serum. Suction drainage through an indwelling nasal tube is uncomfortable, while saline administered intravenously serves principally to stimulate renal function and always carries the danger of pulmonary oedema.—I am, etc.,

Glasgow.

A. IAN L. MAITLAND.

SIR,—Courage is needed to sit on a perforated gastric ulcer, for most of us have been taught that a perforated peptic ulcer is a paramount emergency which needs surgical treatment at once, and any failure to effect this represents the dropping of a major brick; but to some Mr. A. Hedley Visick's most interesting article (Dec. 21, p. 941) on its conservative treatment will be hailed with much approval—though this does not apply to his remarks on bigger and better gastrectomies. It is a hard job sometimes to practise masterly inactivity, and some of his observations will act as a powerful encouragement. Sometimes activity seems to run in inverse proportion to experience. One of my duties is to attend a large body of men for whom a considerable first-aid department exists. With one exception the first-aiders know little of medicine, and recently they have been given a preparation of gentian violet—I imagine as an antiseptic. It produces a striking appearance, and every kind of disability is treated with it. So far as I know it does no harm. Patient and attendant are well satisfied at the dramatic evidence of therapy, and so it may well do good. It is a hard and thankless task to do nothing.

The use of morphine for the pain of a perforation seems sensible enough, though I have the feeling that the stomach lavage, the Ryle tube, and the sulphonamides might well be omitted. But there is the danger that it will be considered by friends of patients and attendants that not enough is being done. Mr. Visick's article will sustain them in their conservatism to leave Nature to repair its transgressions. It is a relief to know that the peritoneum can deal with many strange and unexpected foreign bodies. Although I have seen my fair share of the catastrophes to which the human frame may be heir, withal I cannot resist a sneaking attraction for Wordsworth's simple faith "that Nature never did betray the heart that loved her."—I am, etc.,

London, S.W.1.

E. GALLOP.

Wholesome Bread

SIR,—It is gratifying to find no less an authority than Sir Edward Mellanby drawing attention (Dec. 14, 1946, p. 885) to the harm that is done to our food by certain organizations who put profits before public health.

For their own convenience the millers of this country by means of subtle propaganda have succeeded in building up a demand for wheat flour that has had the germ and pericarp removed, and is in consequence considerably inferior as an article of diet to the wheat flour eaten by our grandparents. We are then faced with the absurd situation of the public spending enormous sums of money on vitamin B products, many of which are prepared from the very substances the millers have removed, while the widespread constipating effects of white denatured flour is relieved by paying certain firms to replace in our diet the selfsame bran that was removed in order to give wheat flour an unnaturally white colour.

But this is not the whole story. Having created an artificial standard of whiteness as a sign of good quality (by which standard strychnine would be regarded as a much more wholesome substance than cocoa), the millers were forced to push this fallacious teaching to its logical conclusion by saying that the whiter the flour the greater its food value. Unfortunately, wheat flour is not pure white, even after extracting the important food elements which give wholemeal flour its brown colour, and so a further artificial process of bleaching was introduced in order to render flour dead white in colour, but,