titioner palpated an epigastric mass. On admission the child appeared well. He was afebrile and the pulse rate was normal. The abdomen was soft and the presence of a mass was not confirmed. Rectal examination was negative, and plain x-rays of the abdomen showed no evidence of fluid levels or dilated loops of bowel. He was therefore observed for 24 hours, after which time he complained of further abdominal pain. Examination during a spasm of pain confirmed the presence of a tender sausage-shaped mass in the epigastrium. A diagnosis of intussusception was made, and an immediate barium enema performed, which confirmed this. The apex lay in the epigastrium. This was readily reduced by the pressure from the enema, and filling was obtained to the caecum. No barium entered the terminal ileum, and a filling defect was demonstrated in the ileocaecal region (Fig. 1). It was not possible to be certain, therefore, that reduction had been complete.

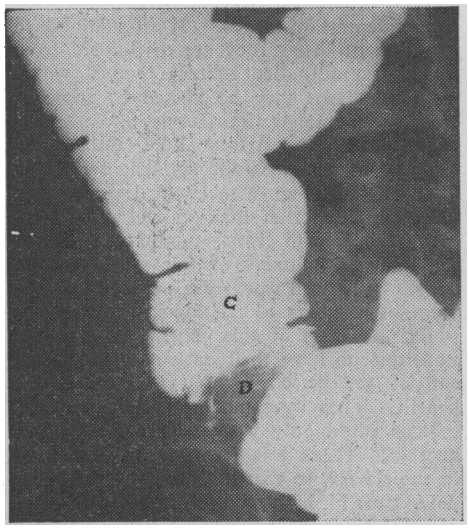

FIG. 1.—Radiograph showing the caecum (C) with a persistent filling defect (D) at its base.

Laparotomy was undertaken through a right paramedian incision under general anaesthesia. It was found that the intussusception had been completely reduced, but there was a soft mass palpable through the wall of the caecum in the region of the healed appendix stump. This felt like a tumour of approximately 3 cm. in diameter and accounted for the filling defect seen in the radiograph and under the image intensifier. It was considered unwise to open the caecum, so a right hemicolectomy was performed and an end-to-side anastomosis made between the terminal ileum and colon. The abdomen was closed and the patient made an uninterrupted recovery. He was discharged home 12 days later, and has since remained well with a single bowel action daily.

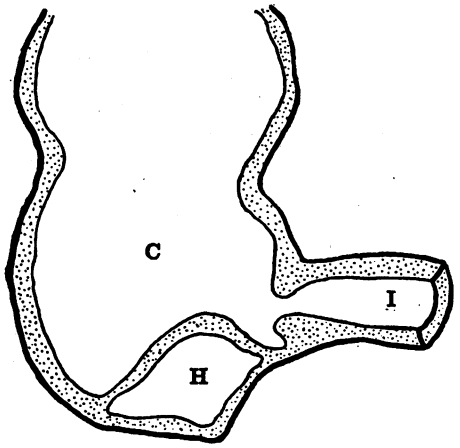

FIG. 2.—Diagram to show the position of the submucosal hamartoma (H) in the region of the appendix stump. I=terminal ileum. C=caecum.

The operation specimen was opened to reveal a small intramural tumour at the site of the appendix stump (Fig. 2). This was of soft rubbery consistence and measured 3 cm. by 2 cm. Histologically it was shown to be a benign hamartoma showing proliferation of vascular and nervous elements.

It is possible that in this patient obstruction of the appendiceal lumen by the hamartoma preceded the primary infection. The apex of an intussusception may be formed by the base of the appendix where this is unduly broad, or concretions, worms, a mucocele, or a polyp protrude from the lumen.

Although it is standard practice to bury the stump the chances of this acting as the apex of an intussusception are infinitesimal. In this case the hamartoma was missed at the first operation on account of the oedema caused by the inflammatory condition, and it is suggested that burying the stump had the effect of pushing the tumour towards the lumen of the caecum, which was unduly mobile. This created the apex of the intussusception. This complication is so rare that it should not prevent the surgeon burying the appendix stump routinely.

I wish to thank Mr. D. B. Craig for permission to publish this case, Dr. J. M. Burbury for the radiograph.

—I am, etc.,

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Prevention of Rh-haemolytic Disease

SIR,—Professor C. A. Clarke's answer (25 November, p. 484) necessitates further comment. He states that the number of cases in the various trials has increased considerably since his lecture. I have received the up-to-date figures, and although the total number of cases in the United States group has increased—for example, the controls from 347 to 503—surprisingly the number of immunizations has decreased from 40 to 36. The Liverpool and Edinburgh figures have not changed, but the German figures have actually decreased from 152 to 117, yet show one more immunization in the controls. Difficulties of this sort had made me confine my questions to the Liverpool series.

Regarding second pregnancies, as the initiative lies with the patient to notify when pregnant again one can guess that the response has been far from complete, and it could be that abortions would less likely be reported. An individual follow-up would give more true assessment.

Professor Clarke agrees that enhancement of immunization by IgM has not been satisfactorily explained and that it is not yet known whether suppression of D-immunization is specific. The mechanism of suppression with the use of gammaglobulin is equally ill-understood and much of the current literature on immunology[1] emphasizes this. As for the antigenicity of gammaglobulin, it may not be valid to compare the use of anti-D gammaglobulin in parturient normal women with gammaglobulin given to patients during pregnancy, when there is a raised threshold to primary immunization,[2] or with gammaglobulin given to patients suffering from agammaglobulinaemia, who have a subnormal antibody response.

Gm antigens are transfused when whole blood or plasma is given and can stimulate anti-Gm, but when the gammaglobulin is fractionated, given intramuscularly, and without the competitive red cell antigens, its antigenicity may well be enhanced.[3] Frequency of stimulation is probably important, and the incidence of anti-Gm may be greater if gammaglobulin is given to patients who have been previously transfused. Six per cent. of Professor Clarke's treated cases have developed anti-Gm antibodies, which warrants consideration of possible clinical reactions due to these in any further transfusion of these patients, and warrants also consideration of their implication in any further pregnancies and in possible long-term effects. The hypothetical causal relationship between anti-Gm and rheumatoid arthritis has been postulated by Fudenberg and Martensson,[4] and in fact was mentioned by Professor Clarke himself,[5] and although there is probably not a simple relationship the role of anti-Gm in rheumatoid arthritis and other immunological disorders is still much under discussion.[6] Anti-Gm antibodies often display iso-specificity and can occur in the 7S globulin. One assumes that such antibodies could cross the placenta and therefore may have an adverse effect on the foetus. Indeed, the possibility that juvenile rheumatoid arthritis might have some such materno-foetal immunological relationship has also been raised by Fudenberg.[4]

Finally, differing Gm factors in different ethnic groups could also have some relevance when bleeding donors as a source of anti-D gammaglobulin. In view of these and other reservations I think there are "several" most important points requiring research, and that the challenge is

> "How covert matters may be best disclos'd,
> And open perils surest answered."
> *Julius Caesar*, Act IV, Sc. 1.

—I am, etc.,

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Intrauterine Transfusion in Rh-isoimmunization

SIR,—The paper by Professor D. V. I. Fairweather and others on intrauterine transfusion in Rh-isoimmunization (28 October, p. 189) calls for some comment. They state that the prolonged anaemia often seen in these babies is due to the depression of bone marrow consequent on the intrauterine transfusion.

However, our personal experience suggests that this might not be the only reason. We have seen three cases of prolonged anaemia occurring in babies who had had intrauterine transfusion, who at 2 months of age had a low reticulocyte count in the peripheral blood, while the bone marrow showed clear signs of erythroid hyperplasia. Coombs test in one

of these cases was strongly positive on the bone marrow, though only very weakly positive on the peripheral blood. The anti-D antibody titre was 1/1,024. Examination of this infant's blood showed that virtually only Rh-negative cells (that is, like those given by transfusion) were present.

This observation supports the hypothesis that the late anaemia seen in very severe Rh disease is due to the persistence of antibodies in the blood. This phenomenon has become apparently more common recently, since, because intrauterine transfusion is now performed, these infants do not require large exchange transfusion at birth, and also there is an increasing survival of severe cases.—We are, etc.,

G. MASERA.
A. MARINI.

University of Milan, Italy.

Gastritis, Aspirin, and Alcohol

SIR,—We were interested in Dr. C. E. Astley's letter (25 November, p. 484), and particularly his last paragraph in which he suggests that regular beer drinking over a number of years eventually leads to duodenal ulcer. Our practices are in Middlesbrough and Redcar, the same area as Dr. Astley's consulting practice. Recently, together with Dr. G. R. Freedman, of Newcastle, and Dr. I. C. Fuller, of Sedgefield, we made a survey of cases of duodenal ulcer in our practices. In this survey various factors in our cases of radiologically proved duodenal ulcer were compared with ulcer-free controls selected by a statistically sound method using random numbers. The figures quoted below are from the Middlesbrough and Redcar practices only. Superficially, at least, our figures do not support Dr. Astley's contention.

In Middlesbrough there were 42 male cases of proved duodenal ulcer, of which 20 (47.5%) were beer drinkers. The average weekly consumption was 6.3 pints (3.6 l.) of bitter beer. Controls numbered 24, including 17 beer drinkers (71%), average consumption 6.5 pints (3.7 l.). In Redcar out of 34 proved cases 19 were beer drinkers (56%), average consumption 11.1 pints (6.4 l.), whereas 25 controls included 16 drinkers (64%), average consumption 11.0 pints (6.3 l.). The difference in the beer consumption between the two towns probably reflects different social patterns in the two practices, the Redcar practice having a higher percentage of steel workers, who have a long-standing tradition of beer drinking.

It is possible that some patients with duodenal ulcer have stopped drinking because of previous advice or adverse effects of alcohol upon their symptoms. In the combined practices, 17 proved cases admitted that alcohol aggravated their symptoms, but 10 were still drinking beer. If the 7 who were apparently deterred are added to the beer drinkers, then the percentage of beer drinkers in controls is still higher than in the cases of duodenal ulcer. The pattern of drinking among ulcer cases and controls in each practice is remarkably consistent, and suggests that if advice to stop drinking has been followed it has been on the all or none principle. This advice too would probably have included smoking in its restrictions. There were, however, in the combined practices 58% of smokers in the proved cases, compared with 45% in the controls.

This illustrates the difficulties which arise when environmental causes are attributed to duodenal ulcer, and more work must be done on a prospective basis before Dr. Astley's contention can be accepted.

With Dr. Astley's stricture on aspirin, particularly Alka-seltzer, we are in complete agreement.—We are, etc.,

G. K. H. HODGKIN.
J. WHEWELL.

Middlesbrough, Yorks.

Alcoholic Content

SIR,—In 1961 I made a suggestion that it was time that the alcoholic content of beverages was properly described on the bottles in terms of approximate percentage by volume. Labels which refer to degrees of proof spirit convey precisely nothing to most people.

It is not only spirits, usually about 40% by volume of alcohol, which should be properly described: various beers and stouts can vary from 3% up to, in one case, 11%. Sherry, port, madeira, and marsala may contain 18%, and wines from 9 to 15%. These must serve as examples of the problem.

In view of new legislation, and a new sense of awareness of road dangers, surely the time has come when drivers, cyclists, and pedestrians are entitled to know just what they are imbibing, and have we not a duty to help the populace to educate itself by learning how and what to drink, and how not to ?

To avoid over-elaboration in a letter, may I refer anyone interested to the summer and autumn editions of *Health Horizon* 1961, which go more fully both into the matter of per cent. labelling and alcohol and the driver ? What seemed important then seems to be highly relevant today.—I am, etc.,

GUY BOUSFIELD.

Broadbridge Heath, Sussex.

Endocarditis and the Mitral Valve

SIR,—In our paper "Prolapse of the Posterior Leaflet of the Mitral Valve: A Clinical, Familial, and Cineangiographic Study" (8 July, p. 71) we suggested that bacterial endocarditis was unlikely to be a complication of this lesion although other authors had suggested that these patients should receive penicillin prophylaxis for dental work. We now wish to report a case of *Streptococcus viridans* endocarditis in one of our patients who had previously been found to have prolapse of the posterior leaflet of the mitral valve.

The patient, a male aged 35 years, was investigated by means of left ventricular cineangiography in May 1967, after a systolic click and late systolic murmur had been found on routine examination. Investigation revealed the typical abnormality of prolapse of the posterior leaflet of the mitral valve into the left atrium with late mitral incompetence. The patient was seen again in October, with a four-week history of malaise and fever for which he had received several short courses of penicillin. (Shortly before the onset of this illness he had been bitten by a dog on the left calf.) On examination he had a fever, but there was no change in his cardiac auscultatory findings and no other findings to suggest the diagnosis of bacterial endocarditis. E.S.R. was 34 mm. in one hour, white cell count was 8,000. Blood cultures were performed and *Str. viridans* was grown from three cultures. The patient was treated with 8 million units of crystalline penicillin intravenously daily for one month and made an uneventful recovery.

We therefore consider that prolapse of the posterior leaflet of the mitral valve may predispose to bacterial endocarditis and that patients with this lesion should receive prophylactic antibiotics for dental work and other conditions which may lead to bacteraemia.—We are, etc.,

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Jaundice in Pregnancy

SIR,—I was interested to read your leading article on jaundice in pregnancy (2 December, p. 499), with particular reference to recurrent intrahepatic cholestatic jaundice of pregnancy. Perhaps it should be emphasized more strongly that this is a benign condition, and the prognosis for mother and child are excellent. No special treatment is needed in the antenatal period, such as induction of labour or caesarean section, on account of the jaundice alone. There is an increased tendency for premature delivery in the 38th week, and some authors have noticed a tendency for the prothrombin level to fall and lead to postpartum haemorrhage if not promptly dealt with.

Thorling[1] in 1955 produced the classical account of the disease, and he and other authors are agreed that the jaundice usually fades first in the puerperium and that the pruritus resolves within about a week or two after this—this point being at variance with your editorial view. Probably generalized pruritus without jaundice occurring in the last few weeks of pregnancy is part of the same syndrome, and Fast and Roultston[2] pointed out that these patients may have elevated serum bilirubin and alkaline phosphatase levels. They also thought that recurrences occur in at least 50% of cases. The condition is probably a great deal more common than realized, and the recent influx of case reports seems to suggest that obstetricians are becoming more aware of it.—I am, etc.,

J. E. A. ONI-ORISAN.

Stobhill General Hospital, Glasgow.

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Massive Overdose of Adrenaline

SIR,—Dr. Michael A. Lewis (7 October, p. 38) speculates on the reasons for the prolonged period of hypotension and tachycardia displayed by his patient without reaching any firm conclusions. Is he able to say what volumes of fluid were administered to this