

scale Home Guard exercise I attended, many "fractures of the spine" were admitted in the prone position, which was difficult to maintain even in these uninjured "patients." Others treated in the supine posture were much more comfortable.

I consider it to be an advantage if the patient on arrival in hospital is fixed on a special frame such as the one I described (*Journal*, March 4, 1939, p. 444), which holds the spine in a moderate degree of extension and yet allows nursing and transport without disturbing the fracture. The principle is similar to that of the Thomas splint in the first-aid treatment of fractures of the femur. Unless some form of splintage is adopted the patient is moved bodily on several occasions from one site to another without adequate fixation of the spine; four transferees are needed for x-ray purposes alone.

Watson-Jones first advocated the prone position in the emergency treatment of fractured spine in 1931, and it has been widely adopted since. I feel that after this extended trial the time has come to assess its practical significance in first-aid work.—I am, etc.,

Pinderfields Emergency Hospital.

GEOFFREY HYMAN.

SIR,—As a "mere" physician whose waning energies wartime conditions have directed to the task of teaching first aid to Home Guard and A.R.P. personnel, I was interested to read the letter of Mr. Thomas Stowell on first aid for fractured spine in the *Journal* of Nov. 21. I think many will regret that he did not ask for space for details of his methods. I hope he will also give us the benefit of his experience in teaching first-aiders how to diagnose the presence of fracture. It is very difficult to teach diagnosis of any injury; that of spinal injury is the most difficult of all. I am sure that Mr. Stowell does not intend to imply that first-aiders ought to diagnose fractures which "in the absence of repeated x-ray examinations are overlooked until later disabilities arise."—I am, etc.,

Downton, Wilts.

J. C. MATTHEWS, M.D., F.R.C.P.

Sulphonamides for Gonorrhoea

SIR,—Dr. M. R. Soni (Nov. 21, p. 617) says that a few years ago I "stated that it is better to wait until the attack [of gonorrhoea] has lasted three weeks before starting treatment with any of the remedies [i.e., sulphonamides]." It is not strictly correct to say that I "stated, etc." In my letter to which Dr. Soni refers (*Journal*, 1938, 2, 91), I said, "On the strength of this evidence, I suggest that, etc.," and the conclusion of the same paragraph indicated, I hoped, that the recommendation was rather tentative and put forward as a basis for discussion. I still believe that the suggestion was sound as applied to any sulphonamide remedy which had been tested at all extensively then, but very soon afterwards it became clear that sulphapyridine was so far superior to sulphanilamide and uleron that no wait was necessary. As I had felt that the suggestion or recommendation was tentative, no public recantation seemed necessary. I hope to profit by this error of omission in future.

Dr. Soni challenges my statement that there is good evidence that administration of 5 g. sulphathiazole on two successive days eradicates gonorrhoea, in males at least, in over 90% of cases, and to prevent any misunderstanding I should like here to cite briefly the evidence which I had in mind: I had already circularized it to directors of V.D. clinics in England.

Prof. G. Miescher, Zurich (1940), as a result of a systematic trial of nine schemes of dosage, arrived first at a one-dose cure and later (1941), in collaboration with Schnetz in a paper which disclosed very careful study of the cases, recommended 5 doses of 1 g. each at intervals of two hours on each of two successive days. With this scheme they claimed 55 cures in 56 cases. Miescher's work was evidently taken seriously by some German Army medical officers. B. Mörschhäuser (1942) reported that with 10 tablets on each of two successive days the relapse rate in 731 cases had been 5.4%. W. Heyn (1942), in 250 cases treated with 10 tablets the first day and 8 the next, had 10% of relapses. Taggeselle (1942) reported 12% relapses in 110 cases treated with 9 tablets a day for 2 days.

Since dispatch of the letter criticized by Dr. Soni I have found three other references which testify to the powerful effect of sulphathiazole in sufficient dosage. H. Haxthausen, Denmark (1941), reporting on 310 cases of complicated and

uncomplicated gonorrhoea, said that in the uncomplicated ones 6 g. daily for two days had yielded 87% of cures in males and 93% in females. J. P. Pappas, U.S.A. (1942), claimed cures in 23 of 28 cases of previously untreated acute gonorrhoea in soldiers treated each with a single dose ranging from 5 to 7 g. H. Pfisterer (1941) reported 95 cures in 100 cases treated by Miescher's two-day method.

The cases in the reports quoted above appear to have been under close control, and this probably eliminated one source of error in many civilian observations—the patients' failure to take the prescribed doses.—I am, etc.,

London, S.W.1.

L. W. HARRISON.

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Reporting of Deaths to Coroner

SIR,—In the *Supplement* of Sept. 12 (p. 25) there appeared a most interesting opinion as to the reporting of deaths to the coroner. I am not concerned with the circumstances that led to that opinion being sought or given, but I venture to submit that, without careful appreciation of the words used, the opinion may be misunderstood.

The preamble that leads to the opinion states that the coroner asked for certain cases to be reported to him; the opinion deals with the matter in terms of the coroner having or not having a lawful right to require the information. The answer given does not exactly correspond with the question that appears to have been asked, and it is in that aspect of the matter that confusion of thought may arise.

It is fundamental to a coroner's jurisdiction that he be informed of a death: before being informed he has no powers. As the opinion points out, apart from a few statutory examples (deaths in mental institutions, foster children, etc.), there is no statutory duty imposed on any person to report deaths to the coroner. By common law, however, there is a duty on any person who knows that a death should be investigated by the coroner to report the fact of that death to the coroner or to the police. And in this connexion it should be remembered that a medical man, with his scientific knowledge and his keener appreciation of the facts, is in a better position to exercise this common-law duty than the average layman.

Under the law relating to the registration of deaths a doctor is required to give a medical certificate as to the cause of death to the best of his knowledge and belief; it is said that he should give a certificate even though the death be violent, since there is no legal sanction that makes any provision absolving him from the duty that statute law has cast upon him. Strict adherence to legal procedure, then, would require that the practitioner on the death of a patient whom he has attended during his last illness should issue a certificate of the cause of death (if he knows it) and at the same time report the case to the coroner if it is one which should be reported. If he does not know the cause of death he cannot issue a certificate, for the wording of Section 3 of the Coroners Act of 1887 casts upon the coroner the duty to inquire into all deaths the cause of which is unknown. If the doctor gives a certificate in a case that should be, but has not been, reported to the coroner, the registrar of deaths, when he receives the certificate from the relatives, is unable to register the death, but has a duty to report it to the coroner. In such a case he cannot register the death until he obtains from the coroner the latter's decision and conclusion. Failure on the part of the medical man to report direct to the coroner will, therefore, involve a delay which may aggravate and distress the relatives of the deceased.

Recognition of this avoidable cause of delay led to the initiation some 12 years ago in my district in London of a system whereby hospitals (a few at first) were asked if they would report to me certain classes of cases direct, instead of sending the relatives with an indifferent certificate to the registrar, who might feel unable to accept it. This system has worked well and has gradually been extended, but it

is essentially voluntary and it has never been suggested that there is any legal compulsion behind it.

The effect of reporting to the coroner deaths occurring within 24 hours of the administration of an anaesthetic places upon his (the coroner's) shoulders the responsibility of decision. In the opinion of the learned counsel, the coroner rightly "requires" the information. This is higher than I assessed it and I am grateful to find that I am so well supported and, indeed, carried forward. The reporting of deaths which occur within 24 hours of admission to hospital is a valuable safeguard against unexpected elements and contingencies. It need hardly be pointed out that it is in no sense a reflection upon a hospital that a patient should die soon after admission, but it may well be that a patient should have been sent in much earlier, or that prior treatment has been inadequate, or that there may have been neglect of the patient by himself or others before his admission to hospital. From the coroner's point of view all these are matters of much importance. Incidentally, I have known many cases of criminal abortion, suicide, etc., which have unexpectedly been brought to light in this way.

While, therefore, I think we must all be grateful for the publication of counsel's opinion, it would be wrong to encourage any thought that it indicates a serious divergence of outlook between the coroner and the medical profession. Both of them have their parts to play in a public service that has a great public value, and voluntary co-operation within the legal framework between doctor and coroner is as much to be welcomed in this as in any other sphere of public activity.—I am, etc.,

W. B. PURCHASE,

London, N.W.1. Coroner, Northern District, County of London.

Tetanus

SIR,—In his recent letter (Nov. 21, p. 619) Dr. J. H. Hannan suggests that it is unnecessary to give antitoxin in tetanus because if the spasms can be controlled the body will produce its own antitoxin in due course. I should like to comment on this view, because, although it is true of some mild cases, it would be unwise to assume that it applies to more than a minority.

When a case of tetanus is first seen some toxin is acting on the nervous system (I will call this "fraction A") and there is no evidence that this can be neutralized by antitoxin, more is circulating in the blood and lymph (fraction B) and can probably be neutralized by antitoxin, and still more is being formed in the wound (fraction C), where its potential threat can be met if, when it is absorbed, there is plenty of circulating antitoxin to meet it. The danger of continued absorption from the wound is real and depends on its nature, severity, and the degree of infection. Recovery depends first on whether a lethal dose of fraction A is already acting on the nervous system before antitoxin is given. If this is so the prognosis is hopeless and death will occur whatever is done to control the spasms. Happily in a high proportion of cases this is not so, and it is probable that a large dose of antitoxin neutralizes fraction B and stops further absorption of fraction C, so preventing a lethal dose. After this, if spasms can be controlled and death by exhaustion prevented the patient should recover.

When a patient is first seen it is impossible to say how much toxin has already been absorbed and how much is still present and being formed in the wound. Some cases, of which the one quoted by Dr. Hannan is an interesting example, have only absorbed a sublethal dose, and if no more is absorbed from the wound the patients will recover by their own powers of resistance. Because it is not possible to distinguish these with certainty when they are first seen it is desirable to give a large dose of antitoxin as soon as possible to every case of tetanus. I think that to try to pick and choose those which need and do not need antitoxin will increase the mortality.—I am, etc.,

Cambridge.

LESLIE COLE.

Prevention of Small-pox

SIR,—Dr. Arthur Howard (Nov. 14, p. 587) says: "The letter on vaccination against small-pox from Dr. Killick Millard (Oct. 31, p. 530) is typical of the prejudiced point of view of present-day anti-vaccinationists. It contains several mis-

statements which should be corrected." If Dr. Howard really thinks that I am an anti-vaccinationist he is certainly much mistaken. Few living men can have spent longer hours pleading with persons who were opposed to vaccination to get vaccinated—I refer of course to actual small-pox contacts—than I have done. Very many of these I have succeeded in convincing and have personally vaccinated them.

As regards my alleged misstatements, Dr. Howard specially emphasizes my contention that vaccination is a much more serious operation than immunization against diphtheria. He claims that in his experience "it causes considerably less discomfort and incapacity than the usual injections for immunization against diphtheria." I can only reply that Dr. Howard's experience is quite contrary to my own, and I have had much personal experience of both forms of inoculation. I can only imagine that his experience has been either very small or very exceptional. I think that few medical men will agree with him.

Dr. Howard concludes by urging that a campaign should be started for universal vaccination on the same lines as that now being conducted for immunization. Has it ever occurred to him that for nearly a century this country attempted to control small-pox by universal vaccination and signally failed; that India is still attempting to do so and has failed even more signally, so that small-pox in India is still a terrible scourge, causing many thousands of deaths every year; that for the past half-century we in this country have virtually abandoned the attempt to secure universal vaccination, yet small-pox has all but disappeared and has quite ceased to affect our mortality returns? Diphtheria, on the other hand, still causes thousands of deaths every year, and immunization is still on its trial. The case for universal vaccination against small-pox is, therefore, entirely different from that for mass immunization against diphtheria.—I am, etc.,

Leicester.

C. KILICK MILLARD.

Riboflavin Deficiency

SIR,—I was interested to read Dr. H. Scarborough's account (Nov. 21, p. 601) of his investigations of the ocular signs in riboflavin deficiency, and his description of three cases showing the fully developed ariboflavinosis syndrome. It seems probable that cases of this deficiency are now more common than a review of the literature would indicate. May this not be due to the fact that under wartime conditions we are eating far more carbohydrates and far less proteins and fats than before, and that our vitamin intake is also reduced to a minimum? In all three cases described there appears to have been either some deficiency in absorption or a failure of storage or utilization of the vitamin, the first patient having had a gastric ulcer, the second steatorrhoea, and the third pernicious anaemia super-added.

According to Dr. V. P. Sydenstricker (*Amer. J. publ. Hlth.*, 31, 344) when you get an excessive carbohydrate intake with a deficient absorption of vitamin or a failure of storage or utilization, the stage is set for a deficiency in one or other of the co-enzymes necessary for starch metabolism.

Apparently the ocular symptoms are among the earliest evidence of riboflavin deficiency, and the striking result of replacement therapy is well illustrated in a case which I saw recently. A married woman aged 43 consulted me in September last complaining of double ptosis, photophobia, progressive dimness of vision, and ocular fatigue; her eyes itched and felt "heavy," and she herself felt nervous and irritable and was easily tired. She had none of the classical signs (fissured lips, cheilosis, glossitis, seborrhoea, etc.) of ariboflavinosis, but had recurrent styes and "ulcers of the gums at about the period times." She had a well-marked cutaneous rosacea, and had complained of dyspepsia for some time. Nine months ago she underwent x-ray examination and a benign duodenal ulcer was revealed. She had been put on a diet and had very little meat but plenty of bread-and-butter, potatoes, and Benger's food. Mr. Harold Levy was consulted for her eye symptoms; he diagnosed superficial keratitis and suggested riboflavin therapy. She was given 2 mg. riboflavin orally and 1 mg. riboflavin by injection daily. The response was immediate, and after one week her ocular symptoms improved. Within a fortnight she felt perfectly well in every way and herself volunteered the statement that she had more