dose of toxin, first, to prevent confusion between mild attacks of scarlet fever and the reaction to toxin, and secondly, to prevent the incapacitation of a large number of staff and patients at one time.

TABLE II.—Dick Test for Susceptibility, showing Age Groups

	Up to 20	21-25	26-30	31-35	36-40	41-45	46-50	Over 50	Total
Patients:									
Number Dick-tested ...	10	8	13	27	24	27	32	116	257
Number with positive reaction	1	3	5	6	4	4	4	8	35 or 13%
Nurses:									
Number Dick-tested ...	14	56	27	14	1	8	—	—	120
Number with positive reaction	7	20	7	5	0	0	—	—	39 or 32.5%

To minimize the risk of infection being carried to the male side, ninety attendants were Dick-tested, and eighteen giving positive reactions were immunized. Thus the susceptibility of the male staff was 20 per cent.

As expected, there was a much larger percentage of susceptibles among the staff, many of whom are under 30, than among the patients, but the comparatively high incidence of susceptibility in the elderly patients is to be noted. This was also borne out in the number of patients over 40 who developed the disease. No patient, and only one nurse, with a negative Dick reaction developed scarlet fever, but two patients and three nurses with positive reactions took the infection before they could be immunized. The cases of tonsillitis gave a Dick-negative reaction. Of the total (178) who received the full course of immunization none developed scarlet fever.

Conclusions

1. There was a coexisting and apparently aetiologically connected outbreak of tonsillitis, but these patients gave a Dick-negative reaction.
2. Although the infection was of a mild type the infectivity and tendency to subsequent complications (apart from nephritis) were in no way diminished.
3. The susceptibility to scarlet fever remains comparatively high among the elderly patient population of a mental hospital.
4. The method of immunizing by four weekly doses of prophylactic toxin can be carried out without discomfort or disability to the patients.
5. No further cases having arisen during the last six months, we are satisfied that an epidemic, such as has been described, can be rapidly and effectively controlled by the active immunization of all susceptibles, as shown by the Dick test.

We wish to thank Dr. John Macarthur, medical superintendent of Bracebridge Mental Hospital, for permission to publish these notes, and for the assistance he has at all times afforded us.

J. Berendes, writing in the *Münchener medizinische Wochenschrift* of November 15th, 1934, states that in tuberculosis of the skin and mucous membranes (as proved by Matzenauer for lupus) the Wassermann reaction is not seldom positive. Another source of confusion is the co-existence of lung tuberculosis with naso-oral syphilis, or possibly (but apparently much less commonly) with laryngeal syphilis. A third source is the fact—possibly explicable by the richness of the mucosa of the upper air passages in lymphatic tissue—that histological examination of biopsy specimens from syphilitic oral, nasal, or laryngeal lesions not infrequently shows the presence of epithelioid-cell tubercles and Langhans's giant cells, and leads to a confident diagnosis of tubercle. In illustration of the last point Berendes records four cases with microscopic characters of tubercle in ulcers of mouth, nose, tonsils, and larynx: the Wassermann reaction was positive and the response to anti-syphilitic therapy was well marked.

A NOTE ON SO-CALLED ACIDOSIS IN CHILDHOOD

BY

R. A. MURRAY SCOTT, M.A., M.B., B.Ch.

Attention was recently drawn (*British Medical Journal*, October 27th) by Dr. K. H. Tallerman to recurrent attacks of vomiting in childhood. He emphasized their importance by pointing out their repeated interference with school life, and noted that these children are often said to be suffering from attacks of acidosis. In an investigation of forty cases he attempted to find some allergic causal factor and failed. He discovered that on a diet with increased carbohydrate and reduced fat they progressed more satisfactorily. He held out hopes for their future, but gave no basis for his hopes.

Survey of Cases

The following brief analysis of twenty-three children with similar symptoms is prompted by Dr. Tallerman's discussion. Each of these children was brought to the writer's notice with a diagnosis of acidosis already made by another medical man in whose neighbourhood the child had previously lived. Their symptoms—to be enumerated later—were similar to those of Dr. Tallerman's series, and it is interesting to note that every one of the twenty-three cases had an infection in the throat or nose or maxillary antra, and that after operation twenty are apparently cured. One has refused operation; one still has mild attacks when she gets cold, and one is still subject to feverish attacks. These cases have been seen within the last five years. Their ages vary from 4 to 13 years, the average being 7½. Of the twenty-three thirteen are girls and ten are boys.

Frequency of Attacks.—This was variable—from once a year to twice a week—though in no case was there any definite period between attacks. The frequency with which the attacks occurred at the week-ends was remarkable.

Exciting Cause.—The parents in several cases put down the exciting cause as chill after school games or over-eating, but it is impossible to give any information of value on this subject. In six cases the mother had warning of an incipient attack by the assumption of a voracious appetite on the child's part. In a further six cases constipation preceded the attack. Constipation was a very regular finding after the acute stage of the attack was over. It occurred in seventeen of the twenty-three cases.

The Attack

Suddenness of onset was a striking feature of the attack. The child might go to school apparently well and be sent home in the middle of the morning. The commonest onset was with headache, fever, vomiting. The headache was frontal or behind the eyes, and occurred in twenty cases. The fever varied from a slight rise to over 104° F. (over 101° in ten cases, and over 104° in two cases). It rarely lasted more than two days. Vomiting occurred in twenty cases. One case had vomiting without headache, and one case headache without vomiting. Three cases had migrainous headaches with visual phenomena. The tongue generally became furred, often thickly coated. The breath was offensive. In seventeen cases Gerhard's ferric chloride test for diacetic acid was done during one or more of the attacks and was in each instance positive. Many urines were examined between attacks, and diacetic acid was never found. The acute part of the attack lasted about two days, and convalescence varied from two days to a fortnight. Two cases showed unusual symptoms—namely, joint pains—during the attacks. Another had a cough with mild bronchitis. One complained of sore throat and difficulty in swallowing.

Diagnosis

Each child was seen in at least one attack. Ten children had enlarged tonsils and adenoids, which became inflamed and swelled during the attacks, and subsided only a little between-times. Eight had tonsils which seemed almost a negligible quantity between attacks and enlarged during the attacks. None of these had any gross adenoid enlargement, which suggests that post-nasal discharge from infected adenoids may be the cause of keeping the tonsils enlarged between the attacks. One had adenoids and no tonsillar enlargement. All the tonsil cases had enlarged tonsillar glands during the attacks, and in only a few cases did they subside between-times. Two had adenoids and maxillary sinusitis. Two had hypertrophic pharyngitis during the attacks. One settled between-times, the other remained. The latter was the one with chest symptoms. His tonsils and adenoids had already been removed. His attacks lasted about fourteen days, and, though sudden in onset, were mild. There was headache, no vomiting, a temperature a little over 99°, crepitations at both bases, and a mild rhinitis. His chief claim to inclusion in this list is that he was diagnosed as a case of acidosis by his previous medical attendant.

Treatment and Progress

All but one of the tonsil group of children in the series have been operated upon. This one refused operation. She continues to have attacks. She has been put on a diet low in fat and high in carbohydrate and made to douche her nose regularly, and her attacks are less

frequent. All the operation cases seem to be cured. The most recent operation was six months ago. One of these has a mild headache and occasionally vomits when she gets a cold. She has had two of these attacks in the three years since her operation; she had about eight a year before this, and they were very severe. The case with adenoids alone and the two with sinus infection were operated upon and seem to be cured. One of the two pharyngitis cases has already been dealt with. The other was treated with nasal douching and nasal drops of ephedrine in liquid paraffin. She has had one attack in two years. She was a case of "pink disease," from which she recovered three years ago. Operation was suggested and refused. The subsequent progress seems to have justified the refusal. Another eight cases of recurrent vomiting have been seen during this time, all of which recovered after tonsillectomy, but as they were not previously diagnosed as acidosis they do not come into this list. It is interesting to note that of all this list of children with inflamed tonsils and adenoids, only one complained of sore throat, so that one is almost justified in calling this type of enlarged tonsil a painless tonsillitis.

Summary and Conclusion

Twenty-three cases of so-called acidosis have been examined. All have been found to have some nasopharyngeal infection. The results of treating the infection have been uniformly satisfactory in abolishing the "acidosis." It is concluded that infection in the nasopharynx is a common cause of recurrent attacks of fever in children.

Clinical Memoranda

DOUBLE PLACENTA PRAEVIA (BINOVULAR TWINS) AND PRE-NATAL DIAGNOSIS OF CONGENITAL HEART IN SUCCESSIVE LABOURS

I was interested to read in the *Journal* of October 20th, 1934, of a case in which a pre-natal diagnosis of congenital heart disease had been made by Dr. A. W. Johns of Erith, and also in your issue of July 29th, 1933, of a case of placenta praevia with twin pregnancy, described by Dr. J. Stanley Coleman. I have had the unusual experience of having met with both these anomalies in the same patient in successive pregnancies. They were reported in the *Nova Scotia Medical Bulletin* for August, 1933. A short description is given below.

BINOVULAR TWINS, DOUBLE PLACENTA PRAEVIA

Mrs. W. B., aged 41, 9-para. Patient seen in consultation with Dr. W. P. Mackasey at Grace Hospital, August 25th, 1923. Her pregnancy was estimated to be practically at term. There was a history of some "spotting" for the preceding two weeks, and rather free bleeding had started twenty-four hours before her admission. Her general condition, however, was still quite good. The pulse rate was 88, and her colour was not at all bad. Rectal examination revealed the presence of a central placenta praevia, with commencing dilatation of the os. The usual abdominal examination was not done. Caesarean section was advised and carried out by the classical method. On opening the uterus binovular twins were found, with double placenta praevia. One placenta was central with the edge of the other coming down to meet it. The twins (both male) weighed 5 lb. and 4 lb. 10 oz. Both were in good condition, and did well. The mother had a satisfactory and afebrile convalescence. She was discharged on September 8th.

PRE-NATAL DIAGNOSIS OF CONGENITAL HEART-BLOCK

The same patient was readmitted at 6 p.m. on December 29th, 1925. She was in labour when admitted, the pains

having started at 3 p.m. that day. The membranes had not ruptured. She had not reported to the clinic for pre-natal examination. The history of the pregnancy was not suggestive of any abnormality. On examination the foetus was found to be presenting by the vertex in the right occipito-anterior position. On listening to the foetal heart it was found to be irregular in an unusual way. After from four to eight regular beats a prolonged pause was to be noted. This pause was so long and so definite that it strongly suggested a condition of heart-block. A student who was present, and who had never previously listened to a foetal heart, was able to note the dropped beat. Labour was terminated by a low forceps delivery at 11.18 p.m. The child when born was not quite the ordinary "blue baby." The colour might better be described as "prune." The face was congested, the eyes were slanting, prominent, and turgid-looking. The muscle tone was poor. The weight was not taken until three days later, when it was 4 lb. 13 oz. The foetal heart auscultated immediately after birth, and revealed the same odd irregularity. The following morning Dr. K. A. MacKenzie (professor of medicine, Dalhousie University Medical School) saw the baby in consultation and made a definite diagnosis of congenital heart-block. The progress in hospital was fairly satisfactory. On discharge (January 11th) the infant's weight was 5 lb. 3 oz. The turgid appearance of the face and eyes was still present, and the heart irregularity was still to be noted. In early June, 1926, Dr. L. M. Murray of Toronto, cardiologist, was visiting Halifax, and expressed a desire to see the child, which was arranged. It was found in practically a dying condition, extremely wasted, pale, with very rapid and laboured respirations, and a history of vomiting. Dr. Murray confirmed the previous diagnosis. Death occurred within a few days after his visit. Permission was obtained for a necropsy, and the heart was removed for careful examination. This specimen is preserved in the museum of the Pathological Institute.

The pathological report by Dr. R. P. Smith, professor of pathology, Dalhousie University, reads as follows:

"The heart was received from Dr. Maclellan with the pericardial covering intact. It is enlarged to some extent from hypertrophy of the right auricle and ventricle—especially the latter—and shows a communication between both auricles (patent foramen ovale). The foramen has an oval