ANTENATAL CLINICS AND PREMATERNITY PRACTICE AT THE EDINBURGH ROYAL MATERNITY HOSPITAL IN THE YEARS 1909-1915.

By J. W. BALLANTYNE, M.D., F.R.C.P.E.,

PHYSICIAN, EDINBURGH ROYAL MATERNITY HOSPITAL; LECTURER ON
MIDWIFERY AND GYNAECOLOGY, SCHOOL OF MEDICINE OF
THE ROYAL COLLEGES, EDINBURGH, ETC.

IN November, 1901, prematernity work was definitely commenced in the Edinburgh Royal Maternity Hospital with the opening of the Hamilton Bed—a bed set apart and endowed for the purpose of the treatment of the diseases peculiar to, or accidental during, pregnancy. A few years later, with the consent of the directors of the hospital, the bed became a ward, and was known as the "prematernity ward"; and I have from time to time reported on the work done therein, sometimes in the form of descriptions of special cases, and at other times in that of lists of maladies dealt with. My last report, which summarized the cases treated in the autumn quarter of 1908, appeared in the February and March parts of the *Journal of Obstetrics and Gynaecology of the British Empire* for 1909.¹ Since 1908 I have continued to be in charge of the hospital during the autumn quarter of each year, and I now bring forward notes on the cases dealt with during these seven recurring periods in the pre-maternity ward.

Before, however, the records of these experiences are set forth it may be useful and interesting to outline the extensions of the prematernity and antenatal work of the hospital during the past few years. No sooner had the prematernity ward been opened than it became evident that patients entering it were being supplied from at least three different sources—medical men in and around Edinburgh, knowing of its existence, began to send in suitable cases, and in this manner the majority of the women arrived for treatment; a few patients apparently came on their own initiative; and others were recommended to come in by the nurses of the hospital who happened, in the discharge of their duties in the outdoor department, to meet with expectant mothers suffering in one way or another from the maladies of gestation. The result was that almost automatically the prematernity work began to develop along these three lines; and, as a consequence, I have never had any lack of cases during the autumn quarter in the last seven years, and in the last three or four years the supply of patients has been such as to force me to accommodate some of the incomers in another small ward of four beds known as the "first stage ward." A few have had to be temporarily placed in the large general wards of the institution.

The extension of the supply of patients through the dissemination of information regarding the existence of the prematernity department has been gradual and continuous. The publication from time to time in the medical journals of the result of cases treated in the hospital has no doubt tended to make the work familiar to a large circle of medical men, and the district served by the hospital has thus been widened, so that in 1914 several patients from long distances were inmates of the ward for longer or shorter periods. As other maternity hospitals establish the same kind of work this source of supply may cease to expand so rapidly.

Antenatal Work in the Extern Department.

Another direction of development has been through the extern department of the hospital and the nurses working in it. At first antenatal work in this sphere was irregular, haphazard, and on a small scale; individual pregnant women occasionally came to the hospital to put down their names to secure attendance at their confinement, and at the same time asked advice in connexion with troubles from which they were suffering, with the result that now and again one would enter the prematernity ward; and nurses, on their rounds in the extern department, sometimes heard of women whose pregnancies were not proceeding normally, and got into touch with them, either giving them advice in minor matters or bringing them into hospital in more serious cases. During the autumn quarter of 1913²

this sort of work was systematized and considerably extended. I then made arrangements whereby a trained nurse with special knowledge of pregnancy troubles was made available for work in the "district" (as the extern department is called), and she visited expectant mothers, giving advice as to the preparations for confinement, making inquiries respecting health, and in particular taking notice of any of the danger signals of the pregnant state, such as headache, oedema of face and hands, excessive vomiting, rickety deformities, and the like. She reported to the matron and the medical staff in the hospital. In cases of grave trouble the patient was brought into the prematernity ward, and in less serious cases she was visited by one of the resident medical officers, and watched over by the pregnancy or prematernity nurse in her own home. Most of the patients with whom the hospital thus got into early touch were married women, the unmarried girls reaching the institution through another channel, to which reference will be immediately made.

In order to aid the prematernity nurses in their work among the expectant mothers of the extern department I constructed and had printed a Prematernity Card, setting forth the most important questions to be inquired into and reported upon. These cards were put into use in September, 1913, and were soon found to be of great value. Each card (*vide infra*) had spaces for answers to questions regarding, first, certain general

PREMATERNITY CARD (Edinburgh Royal Maternity Hospital).

1. Name
2. Age..... 3. Address.....
4. No. of Pregnancy
5. Details of past pregnancies, labours, nursings, etc.
6. Expected Date of Confinement
7. Details of present pregnancy, especially as to danger signals:
 - (a) Excessive vomiting.....
 - (b) Persistent headache.....
 - (c) Small quantity of urine.....
 - (d) Discharge, red or white.....
 - (e) Excessive constipation
 - (f) Impaired vision
 - (g) Any other unusual sign, for example, swelling of hands and face.
8. Advice given as to
 - (a) Food. (b) Clothing. (c) Exercise and rest.
 - (d) Straining or reaching. (e) Medicines.
 - (f) Care of breasts and teeth. (g) Medical advice. (h) Preparations for Confinement and baby clothes. (i) Healthy living rooms.

matters such as name, age, and address of patient; second, the number of the pregnancy, the details of past pregnancies, and the expected date of confinement (that is, the age of the gestation); third, the details of the present pregnancy, especially in respect of such danger signals as excessive vomiting, persistent headache, diminished flow of urine, red discharge, excessive constipation, impaired vision, and the like; and fourth, regarding the advice given by the prematernity nurse as to food, clothing, exercise, rest, straining, medicines, care of breasts and teeth, medical advice (at the hospital), preparations for confinement (in the home), and the like. After filling in the answers to the preliminary questions the visiting nurse was instructed simply to place a cross opposite any one or more than one of the danger signals, and similarly to put a mark opposite the advice she had given. For instance, a card might be returned with a cross opposite "impaired vision," and another alongside of "medical advice"; as the result of the reception of this card one of the medical officers would visit the woman, would probably find that she was suffering from albuminuria and retinitis, and would be able to take such measures as might save her from eclampsia. The patient might have noticed her failing eyesight, but might not have thought of telling the nurse about it had not the question been directly put to her. As a matter of fact such a case occurred in the extern department of the hospital simply as a result of the prematernity nurse asking questions, and this case had not a little to do with my determination to provide the card of inquiry.

As has been stated, married women were the patients most effectively reached by the prematernity nurses. They heard of them when visiting other patients, and.

after finding out that they were not already being looked after by doctor or midwife, they offered their advice, often with the result that timely arrangements were made for confinement, baby clothes were looked after, and many other preliminaries carried out which would otherwise have been postponed or never done at all. Reference has been made to the way in which the unmarried girls were reached. In this respect the hospital was very fortunate in having situated opposite to it the Lauriston Place Home for Maternity Rescue Work. In this institution's young girls illegitimately pregnant for the first time are cared for, and in many cases saved from the further disasters which so often follow upon such lapses from virtue; but, further, these girls are kept under medical supervision, a medical man regularly visiting the home, and watching for early signs of the maladies of pregnancy. In this way deviations from the normal have been on many occasions promptly recognized; in some instances the requisite treatment has been applied in the home with immediately beneficial results, whilst in others the girl has been transferred to the prematernity ward of the adjacent Royal Maternity Hospital for the more specialized management which the morbid condition called for. It is an undoubted fact that by this means many primiparous patients have in recent years been protected from the development of eclampsia, and have been carried safely through their confinements, who would otherwise have suffered severely and might well have lost their lives. There can be no hesitation in saying the Prematernity Rescue Home and the prematernity ward in the Royal Maternity Hospital have worked most usefully into each other's hands, and have by their conjoined efforts saved many lives and lessened much suffering.

ANTENATAL WORK IN THE HOSPITAL.

During the summer of 1915 a further advance was made in the organization of the prematernity and antenatal work carried on in the Royal Maternity Hospital. This consisted in the establishment of a weekly antenatal clinic, under the care of the physician or the assistant physician of the hospital for the time being. Two rooms were set apart and fitted up for the purpose, and in them regular antenatal clinics were commenced in June, 1915, under the care of Dr. Haig Ferguson, whose quarter it was. When I came on duty on July 1st the work which had been so auspiciously begun was continued, and Dr. Oliphant Nicholson, the assistant physician, saw many an interesting case of disease in pregnancy during the following three months. Some cases were immediately taken into the prematernity ward, others were treated at the clinic, and yet others at their own homes in the extern department, and others again were simply asked to report themselves at intervals for supervision. Another weekly clinic was instituted at the same time for infants recently born in connexion with either the indoor or the outdoor work of the hospital, and so post-natal is added to antenatal care of the babies. The directors of the hospital present to each of the expectant mothers visiting the clinic a copy of my little booklet (*Hints to the Expectant Mother on Her Health*), published in 1915 by the Women's Co-operative Guild of London. This has also been freely used in the extern department of the hospital, and has to some extent taken the place of the prematernity cards above referred to. Through the antenatal clinic there can be no doubt that the hospital comes into more immediate and earlier touch with just the patients who may be most benefited by prematernity care and treatment. It has, so to say, completed the prematernity system of the hospital.

During the autumn quarter of 1915 a number of interesting cases were dealt with in the antenatal clinic. There were two or three patients suffering from albuminuria; a heart case which was taken into the prematernity ward; an instance of excessive vomiting which was treated; a woman troubled with haemorrhoids, who was relieved; one with a contracted pelvis, who was told to come into hospital for induction of labour in a month; one who had had repeated miscarriages and whose past history in respect of syphilis was investigated; one who had given birth to dead infants, who was kept under observation; one who had had spurious pains and was assured of the fact; one who had had "fainting turns" from an undiscoverable cause, who was to be visited; one who was distressed by cystitis, and was given medicine; one who had chronic

constipation, which was overcome, and one whose pregnancy was doubtful. There were also cases of normal pregnancy, in which the mothers simply came for advice about their arrangements. There can be no doubt regarding the real value of these antenatal clinics, for through them the physician on duty gets to know of the health of pregnant women who will later become his patients in either the intern or extern departments of the hospital; his diagnosis and prognosis, and to some extent his treatment of the resulting confinements, are rendered more exact and much more effective, and the patients' chances of normal labours rendered better than they would otherwise be. Further, when more normal non-war times come, the teaching value of the clinic for undergraduates and post-graduates will be demonstrated more fully. Certainly opportunities for the careful diagnosis of normal, and especially of abnormal, pregnancies are thus greatly extended.

The Prematernity System.

The prematernity system of the hospital as it now exists may be described as follows: The prematernity ward is the centre of the whole work, for without it all the rest would be ineffective. The other means would not indeed be useless but they would be indecisive, and patients would be left in many cases incompletely dealt with. Consequently the other parts of the system are largely of the nature of sources of supply for the prematernity ward. They consist in the first place of the prematernity or prenatal nurses (to use the name given to them in Boston where they work under the Women's Municipal League), who come into touch with expectant mothers in the outdoor department of the hospital, and who, if necessary, recommend these "expectants" either to the antenatal clinic or to the prematernity ward. In the second place, there is the prematernity home for unmarried girls, where such young pregnant women are kept under medical supervision, and can be sent either into the general wards when they pass into labour, or into the prematernity ward if they develop serious complications of gestation; in the third place, of the antenatal clinic, whose range of usefulness has already been indicated, and need not be restated; and, in the fourth place, of the medical practitioners in the neighbourhood, who, with steadily increasing frequency, are sending suitable patients of the working class into hospital for prematernity treatment. The prematernity department of the hospital, naturally, is connected with the maternity portion, where the women are delivered of their infants and pass the days of the puerperium, and that again is reinforced by the baby clinics, to which the mothers are enjoined to bring their infants for supervision, weighing, and advice, and by the postnatal home for the unmarried mother and her first child.⁴ At the same time these agencies are not necessarily all brought into action in any case. It is not essential, for instance, that a woman treated in the prematernity ward wait in the hospital for her confinement; she may be relieved of her trouble while in the pregnancy ward, and thereafter return to her own home for her confinement; and this is a not infrequent occurrence in the case of maladies early in pregnancy, such as threatened abortions and troublesome vomiting.

PREMATERNITY WARD WORK, 1909-1915.

In the remaining part of this contribution I shall not try to give a complete account of the work done in the prematernity ward in the Edinburgh Royal Maternity Hospital during the autumn quarters of the seven years from 1909 to 1915, for that would constitute a very lengthy statement; but I shall give the numbers of the patients attending in these quarters, indicate the maladies from which they suffered, and a few notes in connexion with specially interesting cases.

Autumn Quarter, 1909.

In the autumn quarter of 1909 thirty-two patients passed through the prematernity ward. The following were the causes by reason of which these women were treated in the ward for morbid pregnancies: Of albuminurias there were five, and of eclampsias three, and to these eight cases special reference is made below. Three were received on account of varicose veins, three by reason of false pains, three for the induction of labour on account of

small size of the pelvis, three for heart disease, and three for convenience (homelessness, poverty). Two patients were admitted for threatened abortion, in both of whom the pregnancy continued. One patient was taken into the ward on account of symptoms arising from over-distension of the abdomen, which turned out to be due to twins; one for syphilis complicating pregnancy; one for a cervical cyst which it was feared might interfere with labour, but did not; one for inevitable abortion; one for phlebitis; one for croupous pneumonia; and one for an ovarian tumour, which was removed a few days later in the Royal Infirmary, where she was sent.

Whilst the maladies named were the outstanding ones from which the patients suffered, they were not the sole ones. For instance, one of the women, whose most evident trouble arose from varicose veins, had in a previous pregnancy been attacked by eclampsia; another, who is numbered with the albuminurias, came in for false pains; and the existence of a cervical cyst was quite accidentally discovered in another, who came to the hospital from the poorhouse.

Of the thirty-two mothers one only died. This was the patient sent in suffering from croupous pneumonia. She arrived in an ambulance from a town some miles out of Edinburgh, and was practically moribund on her arrival. She was put on oxygen inhalation soon after her admission, and was vigorously treated by stimulants and other appropriate means, but all the measures taken were ineffective, and she died undelivered. She was not at term. Of the remaining thirty-one mothers, six left the hospital undelivered but relieved of the maladies for which they were admitted; the six included the cases of threatened abortion, of varicose veins, and of false pains. Another undelivered woman (the one suffering from an ovarian tumour) went to the Royal Infirmary for ovariectomy. Twenty-four patients remained in or returned to the hospital for confinements, and they all left the institution in good or fairly good health after their deliveries. One death in thirty-two was a result which could be considered satisfactory when it was borne in mind that there were three eclampsias, five albuminurias, three heart cases (one of which was a very serious one), and a croupous pneumonia. The heart case just referred to was so grave that labour had to be induced; she lived for two years afterwards. The results so far as the infants were concerned were not so good; they numbered twenty-six, for in one case there were twins. Of the twenty-six, sixteen were alive when their mothers left the hospital, and to these might be fairly added the seven fetuses still unborn in the seven patients who left the institution undelivered; but the remaining ten died, eight of them antenatally, one during birth (from craniotomy), and one (a prematurely born child from a case of induction) some days later in the post-natal period. Of the eight antenatal deaths one was an abortion, one was due to syphilis, two were the result of eclampsia in the mothers, one fetus perished *in utero* (in the case of the maternal death), one death was due to maternal albuminuria, one to maternal heart disease (probably placental haemorrhage), and one from an unknown cause (prematurity?).

Nearly all these prematurity cases contained elements of interest in their records; but space can only be given for a brief reference to the three cases of eclampsia.

The first of them, a primipara, aged 25 years, was a few days short of the full term, and was sent into hospital after having had seven fits. On admission her blood pressure was 165, her pulse 91, and her temperature 99. Venesection was performed, the stomach was washed out with sodium bicarbonate solution, 10 oz. of Henry's solution were inserted into the stomach, a large enema was given, and normal saline was transfused subcutaneously. Improvement followed, and three days later she went into labour and was safely delivered of a living child. She had no fits after admission to the ward, and both she and her baby left the hospital well.

The second eclampsia patient was also primiparous, her age was 27, and her pregnancy was in the eighth month. She was sent into the hospital after having had five fits, and she had one after admission. The treatment consisted of stomach washing, the administration of 10 oz. of Henry's solution by stomach tube, a large enema, and the hot pack. She soon began to improve, and five days later she went into labour and was delivered of a dead-born male child, whose weight was only 4 lb. 2 oz. The mother made a good recovery. The third patient had a somewhat unusual experience, and it was a consideration of her case which led me to extend the treatment I was in the habit of giving in eclampsia to albuminuric patients who had not yet developed fits. She was only 17 years

of age; it was her first pregnancy, and she had reached the seventh month; she was sent into the prematernity ward on account of generalized oedema, diminished secretion of urine, and marked albuminuria. She had had no fits. I contented myself with ordering purgatives, diuretics, the hot pack, and an enema, and for five days there was steady improvement; then her blood pressure rose to 170, the fetal movements ceased, and the patient had a fit. On the following day she had two fits, and then venesection, intravenous transfusion (normal saline), stomach washing, and the running in of Henry's solution was performed. Improvement in certain of the symptoms followed, but she continued in a dangerous state for two days, at the end of which labour set in, and she was delivered of a dead male fetus, weighing 2½ lb. She made a slow but in the end a good recovery.

This last case was in one sense a disappointment, for I had hoped—and, indeed, had affirmed in teaching students and post-graduates—that if an albuminuric patient came into the prematernity ward and received treatment there for at least two days eclampsia could be staved off. In this instance eclampsia was not prevented. The lesson I learnt was to give to grave cases of albuminuria the same treatment, or part of it, as I was giving to actual eclampsias. In future I treated the serious cases of pre-eclampsia just as if they had already had fits, sometimes doing a venesection, sometimes adding to that a gastric lavage with sodium bicarbonate solution, and sometimes transfusing as well. The change in management was simply a carrying of the principles of preventive treatment a little further back in the history of the case. In other words, I did not wait for the fits to develop before giving the treatment I thought necessary for them.

Autumn Quarter, 1910.

In the autumn quarter of 1910 twenty-nine patients passed through the prematernity ward. The conditions leading to their admission to the ward were as follow: Four were admitted for convenience (poverty, homelessness), three on account of albuminuria, three for the induction of labour on account of contraction of the pelvis, and one to wait for a Caesarean section for the same reason, two for spurious labour pains, two for heart disease, and one each for jaundice, retroversion of the gravid uterus, eclampsia, pyelonephritis, hyperemesis, oedema of limbs, haemorrhage at eighth month, haemorrhage at seventh month, syphilis and perhaps myxoedema, supposed appendicitis, threatened abortion, and diarrhoea and vomiting. There were two other interesting causes for admission. One was the occurrence of fetal death in previous pregnancies, and the other was the supervention of convulsions (soon after birth) in the infants born at previous labours.

All the mothers did well. Seventeen of them remained in the hospital for their deliveries, whilst twelve, for various reasons, left undelivered, but, as a rule, relieved of the trouble for which they were admitted, or remained for further treatment during the ensuing quarter. Of the seventeen mothers who went on to labour, fourteen gave birth to living children who left the hospital alive, whilst one (an albuminuric patient) expelled a dead fetus, one (a hyperemesis case) had abortion induced, and another (a woman with a contracted pelvis, especially narrow at the outlet) lost her child in labour. The last named case caused me more regret than any other during the quarter.

The woman had had four previous full term labours. With the help of forceps her doctor had delivered her of her first child, who, although in a state of asphyxia at the time of birth, had survived; but in the three following labours, which were all instrumental, the child was lost in each case. She had been warned to return to the hospital for induction on the occasion of her last labour, but she did not come in till she was in the eighth month. The interspinous diameter measured about 9 in. and the intercrural about 10 in., whilst the true conjugate was calculated to be a little over 3 in.; the outlet felt markedly narrow. It was regarded as a justo minor type of deformed pelvis. Labour was induced, but both forceps and version having failed the child had to be craniotomized.

Two causes must be assigned for the untoward result. The first was a miscalculation of the possibility of the child passing through the pelvis, owing in part to the late date of induction, in part to the large size of the fetus, and in part to the unrealized narrowness of the outlet; and the second was the fact that in her first labour a living child was extracted with the help of forceps.

During this quarter a good deal of post-graduate

teaching was carried on in the hospital,* and I gave several clinics in the prematernity ward; one of these lectures was reported in the *International Clinics*.⁵ In it I gave an account of three interesting cases.

One was an instance of recurrent fetal death in a patient who in each of her three previous pregnancies was delivered of a child which had evidently perished *in utero* about a fortnight before its expulsion. She was pregnant for the fourth time, and besides watching the fetal heart carefully I ordered her to have calcium chloride and a mixture containing iron, arsenic, and strychnine. She went a little beyond the full term, and so I induced labour, and had the satisfaction of delivering her of a living child.

Another woman was successfully treated for retroversion of the gravid uterus causing difficulty in micturition; the uterus was replaced under an anaesthetic, and a pessary was introduced to keep it in position.

The third patient suffered from renal calculi and pyonephrosis in pregnancy; she was operated on in the Royal Infirmary, the kidney being opened and the stones removed (nephrolithotomy); she then returned to the prematernity ward, where she remained till her labour, which took place normally; both mother and infant left the hospital in good health.

Amongst the cases treated at this time there was a curious one in which a patient was sent into the ward from the country by a doctor who reported that in each of her previous pregnancies (five in number) she had given birth to a living child which in every instance died from fits some weeks later. In one instance a *post-mortem* examination was made, which did not, however, reveal any cause for the fits. Her medical man (Dr. Andrew, of Windygates, in Fife) thought that perhaps some antenatal treatment might be administered through the mother which would prevent the next infant dying in the same way as the former ones. A very close examination of every one of the woman's systems was made, without, however, leading to the discovery of any anomaly in the working of any one of them. Thinking that perhaps the fetus might have suffered in previous pregnancies from deficiency of calcium salts or of phosphorus, I put the mother on hypophosphite of calcium and sodium, and after a stay in the ward of about a week she returned to her home to be under Dr. Andrew's care. I heard later from Dr. Andrew that once again she had given birth to a living and apparently healthy child who had developed fits at the end of a week. Treatment before birth, therefore, was of no avail in this case, but I have recorded it as of interest and as illustrating the sort of case which the prematernity ward attracts to the hospital and the new vistas of possible kinds of treatment it suggests.

Autumn Quarter, 1911.

In 1911 my quarter on duty in the maternity hospital was reduced by two weeks, in order to facilitate a re-adjustment of the terms of service of the medical staff; consequently, the number of patients who passed through the prematernity ward was reduced to 26. These patients came in for various causes. Three were admitted because they were supposed to be aborting, and two of them did abort, whilst the other was curetted when it was discovered that she had already expelled most of the gestation sac. Another patient was sent because of repeated premature labours with dead children; she did well. There were 5 cases of albuminuria; all these did well under appropriate treatment, with the result that the five mothers left the hospital in good health along with six children, for one of the labours ended in the birth of twins (with hydramnios). In one of these albuminuric patients there had been chorea in the early months of pregnancy (for which she had been treated in the prematernity ward); in the twin case the united weight of the infants was 10 lb. 5 oz., and in the remaining 3 cases the child weighed 8 lb. 6 oz., 8 lb. 13 oz., and 7 lb. 15 oz. respectively. It was therefore probable that in 4 of the cases the cause of the albuminuria was mechanical pressure or renal strain.

There were 3 cases of hyperemesis, and in all of them it was found necessary to induce abortion. Consequently all the fetal lives were lost, and there were four of them, for in one of the pregnancies there were twins. This was an unfortunate result; but in addition I had to deplore the death of one of the mothers. The fatal case was one of a woman, aged 40, pregnant for the fifth time (at the

fourth month). Her pulse was 110 when she was admitted, and it never fell below 100 either after or before the induction, and death occurred seven days *post abortum*. Another patient was sent in for gastric disturbance near the close of pregnancy; but she had a normal labour and a living child. There was some (unconfirmed) suspicion of gastric ulcer. Two women came in on account of troublesome constipation; both were relieved by appropriate treatment; one went out undelivered, as she was not near term, and the other remained in hospital for her confinement, which was normal. Two patients came in for spurious pains; in one case they settled down and she went out, her pregnancy continuing; in the other she went out, returned exactly fourteen days later, and had her baby normally.

Two patients were in the prematernity ward by reason of contracted pelvis. One of these women went into labour spontaneously and prematurely, while waiting in the ward, and had a living child who survived; the other, who had had Caesarean section on a previous occasion and had developed a large umbilical hernia, was kept in till full term, when I performed a second Caesarean section along with an operation for the closure of the hernia; both were successful. Of the remaining seven cases, one was admitted after a fall in pregnancy and an attack of haematemesis, but since no evil results followed she went home in eight days; one came in for bronchitis and varicose veins, and after a stay of a week was delivered naturally, with immediate improvement in the two morbid states; one was sent in for oedema of the legs, and after twelve days gave birth to a child weighing 9 lb. 6 oz., a circumstance which probably accounted for the oedema; one was given a bed for nearly a fortnight on account of threatened accidental haemorrhage, but since the red discharge did not return she went home for her confinement, which was not due for some weeks; one was sent up to the hospital on account of mental symptoms, and whilst in the hospital she tried to drink a bottle of lysol, but she became normal after her confinement, which, however, was three weeks post-mature; and another was admitted on account of phlebitis of the left leg which threatened to develop into phlegmasia alba dolens of pregnancy, but which, with rest in bed and other appropriate treatment subsided and was followed by a normal labour and puerperium. The last-named patient also suffered from an abscess in the leg which Mr. Wade (from the Royal Infirmary) opened after her confinement. The seventh of these cases was an interesting example of haematuria during pregnancy.

The woman was a III-gravida at the eighth month; for more than two months blood had been coming in the urine, and she had received treatment from her doctor, but lately the haemorrhage had been alarming, and it was so during the first five days after her admission to the hospital. As the cause was obscure, I asked Professor Caird (the consulting surgeon of the hospital) to see her with me. The result of a cystoscopic examination was the discovery of an ulcer at the fundus of the bladder, covered with a blood clot. Since she gave a positive von Pirquet reaction it was regarded as probable that the ulcer was tuberculous in nature. But whatever may have been the explanation the blood gradually diminished in amount, was quite gone eleven days later, and the patient had a normal labour and puerperium and a healthy male child weighing at birth 8 lb. 4 oz.

The results of the prematernity ward work for the autumn quarter of 1911 may be summed up as follows: Twenty-six mothers were under treatment; of these, 5 left the hospital undelivered but relieved of the trouble for which they entered; 1 died (the case of severe hyperemesis gravidarum); and the remaining 20 passed through labour and left the hospital well. In all there were 28 babies or fetuses, for in two of the confinements twins were born; of 5 of these nothing can be said, for the mothers went out before delivery; 7 fetuses (including one pair of twins) perished, but they were all non-viable; and the remaining 16 (including the second pair of twins) were all alive and well when taken from the hospital by their mothers.

REFERENCES.

- ¹ Prematernity Hospital Practice, *Journ. Obstet. and Gynaec. of the British Empire*, 1909, vol. xv, pp. 93, 169.
- ² *BRITISH MEDICAL JOURNAL*, 1913, ii, p. 825.
- ³ *BRITISH MEDICAL JOURNAL*, 1913, i, p. 579.
- ⁴ A. Dingwall Fordyce, *Edin. Med. Journ.*, 1915, N.S. xv, pp. 130-134.
- ⁵ *International Clinics*, 1911, 21 S., vol. iii, pp. 221-222.

(To be continued.)

* This was continued and developed in all the succeeding years save in 1915.