

Honorary General Secretary for the necessary signatures. The forms will then be returned to the applicant who should present them in Paris when she applies for Registration.

The forms may be obtained at any time between now and June but time should be allowed for transit in the post.

We have great pleasure in announcing that the money needed to be raised for sending two official delegates to the Conference has all been promised.

The actual money in hand when going to press is Rs. 2,796-10-9 and other money which we understand to be forthcoming will bring the amount to well above Rs. 3,000.

It is worthy of special mention that practically all the large sums which have been raised have been through the efforts of the Student Nurses and the Senior Staffs in some of our busiest hospitals and we render to them and all the thanks due to them.

ANTE-NATAL CARE*

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May I express alike the honour and pleasure I feel at being the opener of this important discussion on ante-natal care. In my opinion ante-natal care is the foundation of good midwifery. Through its agency eclampsia and other toxæmias of pregnancy (including accidental haemorrhage which is usually the result of a toxæmia) can be almost eliminated. It can reduce to a minimum the terrible accidents of labour due to contracted pelvis, disproportion and malposition of the foetus, and can reduce considerably the mortality and morbidity due to puerperal sepsis and anaemias of pregnancy.

The Still-birth and Neo-natal death rate, in a similar manner, can be diminished.

In August 1930, Dr. Margaret Balfour published an article in the Journal of the Association of Medical Women in India on 'Maternal Mortality in Child-birth in India'. It was based on the results of 2,790 cases of labour reported from 12 hospitals for women in India. In this series there were 59 deaths, i.e., a death rate of 23.3 per 1,000. In England the puerperal death rate in 1931 was 4.11 per 1,000, i.e., less than 1/5th of that in India. In a recent report of Queen Charlotte's Lying-in Hospital it is stated that 'It is a significant fact among "booked" patients who attended the hospital ante-natal depart-

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ment, the death rate was only 2.6 per 1,000, as compared with a death rate of 25 per 1,000 among "emergency" cases admitted at the last moment.'

In St. Stephen's Hospital during the present year there have been 716 labour cases with 12 deaths, i.e., a mortality rate of 16.8 per 1,000. These deaths all occurred in 'emergency' cases. The death rate in the 'booked' cases was nil, although many of these were complicated by disease or pelvic contraction. The deaths that occurred were lamentable as the majority of them might have been prevented if there had been proper ante-natal care. The cause of death was as follows:—

Puerperal Sepsis	...	5.	All the patients were cases of obstructed labour who had been infected by <i>dais</i> before admission.
Eclampsia	...	1.	
Toxaemia of Pregnancy with concealed ante-partum Haemorrhage	...	1.	
Toxaemia of Pregnancy with contracted Pelvis	...	1.	
Anaemia of Pregnancy	...	1.	
Ruptured Uterus	...	1.	Admitted almost moribund.
Post-partum Haemorrhage	...	1.	Admitted pulseless with a retained Placenta.
Placenta Praevia	...	1.	

In Dr. Balfour's Indian series the Still-birth and Neo-natal deaths were 249, i.e., 99 per 1,000.

In the Queen Charlotte's report the importance of ante-natal care from the child's point of view also is indicated by an infant mortality rate of 64.7 per 1,000 among 'emergency' cases and of only 2.16 per 1,000 among 'booked' cases.

We know very little of the causes of the very high infant mortality in India, but there is little doubt the rate could be reduced considerably if the mothers had more efficient ante-natal care.

Until recent years it was maintained that Indian women would not attend ante-natal clinics and that it was useless starting them. I am glad to say that attitude has changed to some extent and many of the women's hospitals and maternity and child welfare centres have flourishing ante-natal clinics attached to them.

There is, however, great need for more organised effort in establishing clinics all over the country, especially in the villages. Also every doctor and midwife undertaking maternity cases should apply the prin-

ciples of prophylactic midwifery in all cases. Prophylactic midwifery does not apply only to ante-natal work but continues throughout labour and the puerperium. No amount of ante-natal care can do away with the necessity for good midwifery throughout labour and the puerperium. Ante-natal care is only the preparation for the labour, and its full benefits only will be realised if there is full co-operation between those responsible for the ante-natal care and those responsible for the delivery of the patient and her after care. Unfortunately, at the present time, there is very little of this necessary co-operation, except in the case of clinics connected with hospitals.

Every hospital for women in India should have its ante-natal clinic where all women who intend to enter the hospital for confinement or to be attended outside by the hospital staff should be seen and treated from the 3rd month onwards.

These centres should also act as consultation centres for cases of difficulty sent by doctors, health visitors and dais in the district. The dais should be encouraged to bring their patients and should themselves be taught the essentials of ante-natal care. In addition, clinics should be established in connection with all Infant Welfare Centres. Many expectant mothers require nothing further than the simple advice they receive at these clinics, but if anything abnormal is detected, they should be advised to attend the ante-natal clinic of a neighbouring hospital where they are seen by a specialist. The health visitor, herself, should, if possible take the patient to be seen by the doctor and make herself responsible for the advice given being carried out. Ideally, there should be a health visitor attached to every hospital clinic, as she will visit the patients in their homes, will give simple advice on hygiene etc. and in case of illness will see that the instructions of the doctor are carried out properly or that the patient is admitted into hospital.

The expectant mother should be encouraged to attend the clinic from an early date of pregnancy. During the first visit a careful history is taken, noting especially if there is a history suggestive of Rickets, Osteo-malacia, Syphilis, Gonorrhœa or Malaria. In a case of a multipara careful note of the nature of the previous pregnancies and labours is made.

The symptoms of the present pregnancy are then noted, especial care being taken to elicit symptoms of vomiting, headaches, eye troubles, swelling of the feet, discharge etc. Next a careful examination of the patient is conducted. First, a general one, noting the general appearance of the patient, the build, the presence of deformities etc. The condition of the mouth also is of great importance, as septic teeth, infected tonsils etc., undoubtedly may lead to auto-infection at the

time of delivery. The heart and lungs are examined, the breasts, and the abdomen. The duration of the pregnancy is estimated and if pregnancy is sufficiently advanced, the position of the child is determined. The usual external measurements are taken and finally a pelvic examination is made. If there is any abnormal vaginal discharge present, films are taken from the cervix for microscopical examination. If pathological organisms are found special treatment is at once instituted, thus eliminating a possible source of infection at the time of labour and a source of great danger to the child's eyes. A routine examination of the urine is made at each visit. Should the patient complain of symptoms suggestive of toxæmia, e.g. excessive vomiting, headaches, swelling of the face and feet etc. the urine is more carefully investigated and the blood pressure taken. Suitable treatment is at once advised. If the condition does not quickly improve, the patient is admitted to hospital for more drastic treatment. Nothing is so impressive as this treatment. A patient, water-logged, passing only 1-2 oz. of urine, solid with albumin and with a blood pressure of 180 or more in most cases presents an entirely different picture in 24 hours and is on the high road to recovery. In this way the danger of eclampsia is reduced to a minimum.

Then again the detection of a pelvic contraction in pregnancy, its exact measurement and the periodical estimation of the relation of the size of the foetal head to the size of the pelvis enables the obstetrician to choose in good time and to prepare for the best method of delivery at or before term. In one case, it is safe to leave the birth to the natural efforts, aided by moulding of the foetal head; in another induction of premature labour is the method of choice, while in yet another Caesarean Section at term will be best. In any case having considered all the factors involved, the labour will be approached with confidence. Cases of craniotomy and other destructive operations will be of rare occurrence.

Abnormal presentations will be diagnosed and rectified if possible before the onset of labour. External version of podalic lies is done in every case, preferably at about the 32nd week of pregnancy. Transverse and occipito-posterior positions can often be changed into normal positions by manipulations and pads suitably placed. In these abnormal presentations the possibility of a contracted pelvis must be kept in mind. If there is any doubt as to the position of the child an X-ray photo is taken.

All cases of ante-partum haemorrhage are taken into hospital for diagnosis and treatment. The great majority of cases of accidental haemorrhage have been shown to be due to a toxæmia of pregnancy and by suitable treatment of this condition may go to full term. In certain

cases of Placenta Praevia, Caesarean Section may be the means of saving the life of mother and child.

In this country anaemias of pregnancy are responsible for a large number of maternal deaths. If this condition is recognised in the early stages, appropriate treatment will in many cases, bring about a cure and the woman will be saved from almost certain death.

Puerperal Sepsis also will be diminished if the woman's powers of resistance are built up by suitable ante-natal care and if every focus of infection in the woman herself is eradicated.

The effect of Maternal Diet is too big a subject to discuss in this paper, but recent work has shown that specific deficiencies in the mother's diet not only adversely influence her health, but also affect the development of the foetus in utero.

In India the premature birth rate is excessively high. Many of these cases are due to Syphilis, but large numbers occur for which there is no adequate explanation and it would be worth while to explore the possibility of a dietetic deficiency being the operative cause.

The Calcium content of the diet of an expectant mother is especially deserving of consideration. Professor Blair Bell has estimated that the mother parts with 800 grms. of Calcium during the 9 months of pregnancy. Unless this element is freely renewed in the diet it is quite possible that the foetus may be calcium starved with disastrous effects to its vitality. Milk and green vegetables are the principal dietetic source of Calcium and this element can, of course, readily be supplemented medicinally.

Our Ante-natal Clinics have the opportunity of rendering a great public service by instituting a strict search for latent Syphilis in women with a bad obstetric history. Modern methods of Anti-syphilitic treatment have in no department achieved more striking success than in the prevention and cure of Congenital Syphilis. If all syphilitic mothers could be adequately treated during pregnancy the Congenital Syphilitic Child would disappear.

This brief outline will, I think, indicate that by careful ante-natal supervision much can be done to eliminate the majority of the dangers and difficulties of pregnancy and labour, reducing enormously the maternal and foetal death rate. There is also a great gain in the removal of many of the minor discomforts of pregnancy. I doubt whether anyone, who has not been in charge of an ante-natal clinic, has any idea of the sum of inconvenience and malaise, borne by pregnant women, even in cases described as normal. A great deal of this suffering is removable and much of it need not occur if the expectant mother is under proper supervision.