The Midwife.

CENTRAL MIDWIVES BOARD.

The first examination took place on 16th August 1944, when candidates were advised to answer all the following questions:—

1. Describe the lower uterine segment. Give an account of its importance in midwifery.

2. You diagnose a breech presentation in a primigravida at the 34th week of pregnancy. Discuss the points in the diagnosis, and the subsequent care of the patient during the ante-natal period.

3. Discuss the causes of prolapse of the cord and describe your management of a case.

4. A patient 4 days delivered develops a temperature of 103° F. and a pulse of 120. Discuss possible causes. What would be the duties of the midwife attending this patient?

5. What are the commonest causes of death of the baby within 48 hours of its birth? Describe the treatment of one of the conditions you mention.

6. What would make you suspect that a patient whom you were attending ante-natally had contracted venereal disease? What are the dangers of these diseases?

THE LESSONS TO BE LEARNED FROM A STUDY OF INFANT DEATHS IN U.S.A.

Deaths under one month of age have decreased at a slightly less rapid rate (35.5 in 1927 to 29 in 1940) than those under one year, and those under one day have shown almost no decrease since 1927 (15.1 in 1927 to 13.9 in 1940), when statistics on deaths in these last two categories first became available. The Chicago Health Department, in 1936, instituted an intensive study of the causes of infant deaths and stillbirths. As a result of this study, proof was available that there were three principal channels into which efforts to reduce deaths in the neonatal period should be directed — prematurity, birth trauma and infections.

According to E. L. Potter (Chicago), prematurity is a direct cause of approximately one-fourth of all deaths occurring under one month of age and is a contributing factor in at least an additional one-fourth. The immediate reason why the majority of otherwise normal premature infants die is inability to obtain oxygen through the inadequately developed lung. The nearer the infant is to term the greater is the capillary area which is in direct contact with the alveolar lumens. Early in fetal life, each entire alveolus is lined by a continuous layer of cuboidal cells. As the fetus grows, capillaries gradually branch out from the septal vessels and push their way between the cuboidal cells, thrusting them aside so that the capillaries lie uncovered in direct contact with the air spaces. If the number of capillaries in contact with the air and capable of receiving oxygen is too small to support life, the infant cannot survive.

To give the premature infant the greatest chance for survival, it should be under the care of a physician who is cognisant of its special needs, and of an attendant who is specially trained to take care of it. It should be in a place where constant heat is available for maintenance of body temperature, where humidity can be controlled to prevent undue drying of skin and respiratory system, where oxygen can be administered in order to compensate for inadequate pulmonary development, where breast milk is available in order that the least strain may be placed on the digestive system. It should be disturbed as little as possible and kept free from the possibility of infections.

All clothing and bedding should be sterilised during laundering, all food and water should be sterile when administered, all attendants should be free of infection.

Birth trauma—the actual mechanical injury of the infant during birth—is the second principal cause of death which properly directed effort should be able to reduce. Intracranial hæmorrhage is the most common form of fatal injury and it is almost always due to abnormal pressure on the head. This may result from cephalo-pelvic disproportion, abnormal position of the head, abnormalities of uterine contractions or the improper application of forceps. Any attempt to decrease the number of birth injuries must be primarily directed toward improved education of the physician in attendance and toward improvement of the environment in which birth is accomplished.

The third principal cause of death which may yield to well directed effort is infection. At the present time the lungs are the part of the body most frequently involved, although in some localities where delivery does not take place under sterile conditions there is still a high incidence of umbilical and cutaneous infections. The elimination of all pathogenic bacteria from the environment of the infant during delivery and after birth should be attempted. Realising that the greatest reductions in infant death could be brought about by measures directed toward the prevention of birth trauma and infections and in improving the care of premature infants, the Chicago Health Department, in co-operation with the physicians of the city, instituted a programme directed towards this end.

In order to assure better care of premature infants, all such infants have been cared for in especially equipped and staffed nurseries. An incubator ambulance is available when the infant is born at home or needs to be transported from one hospital to another. The attempt to decrease the incidence of birth trauma has been primarily an attempt to improve the practice of obstetrics. Each hospital staff has arranged to have men with adequate training and qualifications available for obstetric consultation; all physicians without specialised training in obstetrics are required to obtain consultation before undertaking any type of operative procedure. The fact that in 1942 the rate for Chicago was 40 per cent. less than that for the country as a whole indicates that at least 40 per cent. of the deaths are preventable on the basis of our present knowledge.

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108



