

be made quickly, and gives freedom of motion so necessary to prevent hypostasis.

The diet is equal in importance to the incubator. After much experience, I must say that without mother's milk it is almost impossible to raise a premature infant—certainly, to be a healthy one. For this reason an incubator station, to be successful, must be in connection with a lying-in hospital. I have given up all attempts with artificial feeding, and get mothers' milk at any trouble and expense. The next best is mixed feeding. One must regulate the frequency and the amounts of the feedings by the size and vigour of the infant. For the smallest, twenty to thirty drops of a two-thirds diluted mother's milk are given every forty minutes to an hour, two drachms every hour, larger children in proportion.

Some children require more, others less, and the amounts vary day and hour. One must not over-feed, because of digestive disturbances, fermentations and indigestion, and, too, regurgitation causing choking and cyanosis, which may be fatal. One must give sufficient, and begin within a few hours after birth to avoid weakness from hunger, which sometimes shows itself in attacks of collapse or cyanosis. The amount at each feeding must be recorded, and if the baby nurses at the breast great exactness must be practised to be assured it has obtained food.

METHOD OF FEEDING.—If the infant can suck and swallow, the food is given with a tiny nipple on a little vial. If the child cannot suck, it may be given with a medicine dropper, either by mouth or through the nose. Gavage is the practice of feeding with a stomach tube. The catheter is passed into the stomach and food poured in slowly. The tube is then quickly withdrawn, the infant being held quiet for a few minutes. If the child can be taken to the breast, it is fed by means of a teterelle. The mother draws the milk into the bulb of the glass, and then allows it to flow into the mouth of the child. One should see that the infant has plenty of water, especially in hot weather, because evaporation is rapid and such children have a relatively large surface and thin skin. With tiny infants, for the first week, feeding is done in the incubator, through the side window. Later they are fed in a warm nursery.

THE BATH.—The incubator infant needs at first no bath. It should be anointed daily with benzoinated lard. Dried discharges on the face and buttocks may need a little water and soap. After the infant is ten days old, it may be bathed in water at 103° Fahr., in a hot room. The nose, ears, mouth, and buttocks must be kept scrupulously clean, which is not easy, because of the smallness and tenderness of the parts. No force dare to be used, because injuries invite infection.

Daily general massage and passive motions must

be practised, with extreme gentleness at first, but later the infant must be accustomed to external conditions. The infant is weighed daily and the temperature taken morning and evening, per rectum, and oftener if the nurse suspects an unusual variation. The child should not be disturbed, except for giving it needed attention, and should be placed alternately on its two sides.

Removal from the apparatus depends on the age of the infant and its rate of growth. As a general rule, when the temperature remains normal for days, when the child is about four and one-fourth to four and one-half pounds in weight, we remove it to its cradle. This varies, of course, so the length of stay is from five days to four weeks. There is no haste in removing the child; it will thrive better in the apparatus, having less to contend with. Operative cases are removed when they have recovered from the shock of the delivery. It has occurred to the writer that an incubator on a large scale would be useful in treating shock in adults. Success in incubator work depends as much on the nursing as the apparatus. Without a conscientious, self-sacrificing, intelligent, and trained set of nurses, the best system will give poor results.

DISEASES OF INCUBATOR INFANTS.

It is manifestly impossible to review the entire field of these affections, as the premature infant may have all the diseases of full-term children. Several affections, however, are peculiarly severe in the premature infant.

First. Sepsis occurs in a great many, and usually comes from the bowel, either as an intoxication or a general infection. Broncho-pneumonia is another fatal complication, and is not usually suspected because the infant shows such feeble signs of life. A subnormal temperature and cyanosis, with loss of weight, are sometimes the only symptoms, and they might be explained by other things.

Second. Ophthalmia neonatorum, when it occurs, takes on a very virulent form, perhaps due to the warm air making conditions favourable to the growth of bacteria. It is particularly difficult to treat because of the weakness of the infant and the smallness of the part. General sepsis may occur from the eye, and in all ways the prognosis is bad.

Third. An affection which has been observed not infrequently at the incubator station of the *Maternité* in Paris, but with which we have had no experience, is an ulcerative rhino-pharyngitis, due to decomposition of food which the baby regurgitates into the nares. Profuse discharge, soon purulent, ulceration of the mucous membrane even to the bone, with the development of saddle nose similar to that of syphilis, are reported. Sometimes this causes a broncho-pneumonia and general sepsis. The treatment is one of local cleanliness and antisepsis, which, however, is not easy to practise.

Fourth. Attacks of syncope are not unusual

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