

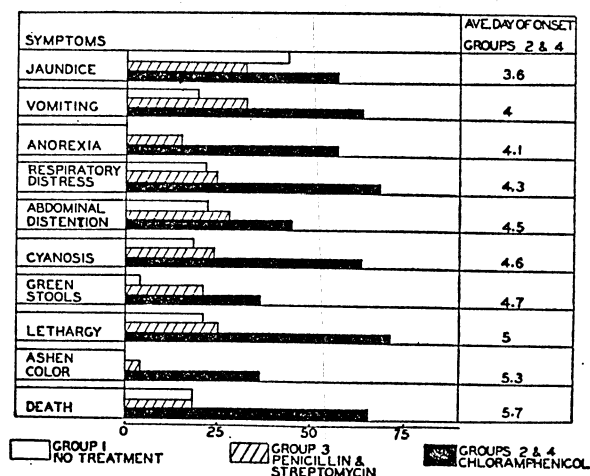


FIGURE 1.—Comparison of Symptoms.

Treatment was started in all cases within twelve hours of birth. The infant's condition at forty-eight hours of age was generally satisfactory. The first evidence of toxicity was vomiting or regurgitation of feedings, which appeared from two to nine days after the start of treatment, with an average onset at four days of age. Refusal to suck followed shortly. Respiratory distress, manifested by irregular, rapid respirations, appeared within a few hours, followed by abdominal distention, periods of cyanosis and passage of loose, green stools. By twenty-four hours after the onset of symptoms these infants were seriously ill. Progression of symptoms continued rapidly, with the appearance of flaccidity, ashen color and a drop in temperature during the next twelve hours. Death usually occurred late in the fifth day of life. Fifty-eight per cent of the babies who survived ran a similar course, recovering twenty-four to thirty-six hours after the chloramphenicol was stopped. These infants appeared normal at the time of discharge.

Of the 126 infants studied, blood cultures were taken on admission to the nursery in 99, and again at death in 27. In no case was there any agreement between the admission and terminal blood cultures. The pathological findings at autopsy correlated with the organism recovered from the blood culture in only 1 case. This infant had a negative blood culture on admission to the nursery. *Escherichia coli* was recovered from the terminal culture. He received no treatment, becoming sick on the fifth day and dying three days later. Autopsy revealed subarachnoid hemorrhage and meningitis.

Cultures of the gastric contents were taken on admission to the nursery in 89 infants. Thirty-nine of the cultures showed no growth. From the remaining cultures, the following organisms were recovered: *Staphylococcus albus*, 17; *Bacillus subtilis*, 12; *Esch. coli*, 6; coliform organisms, 10; gamma-hemolytic streptococcus, 5; beta-hemolytic streptococcus, 3; *Staph. aureus*, 1; and diphtheroids, 1. There was no correlation between the organisms recovered and the clinical course of the infants. Random throat, urine and stool cultures were equally nonspecific.

Blood chemical studies were done in some of the infants. All the infants studied had an elevated non-protein nitrogen. As their condition deteriorated, the serum carbon dioxide fell, and the serum potassium rose. Spinal-fluid chemical findings in 2 of the infants were normal. White-cell counts ranged from 6000 to 30,000.

Autopsies were done on 34 infants, or 68 per cent of the deaths. Gross findings were not remarkable in 25 of them, the cause of death being obscure. Of the remainder 2 had bronchopneumonia, 5 had cerebral hemorrhage, and 2 died after surgical correction of a tracheoesophageal fistula and a duodenal stenosis. Microscopical findings will be reported in detail in a later paper.

Chloramphenicol blood levels were obtained in 2 of the infants. The levels were determined by testing for aromatic nitro compounds after the method of