

of the injection of the serum, or, where through neglect or intention the serum had not been administered. So remarkable a fall in the number of the cases was only equalled by the mildness of the attacks in those cases which had received any serum recently, and this was so marked that the members of the house staff came to look upon diphtheria as a trifling disease, until brought to an appreciation of the necessity for precautionary measures by the occasional severe case that would come to the outdoor clinic.

That the 7 or 8 cases which did occur were preventible was apparent, and as the apparent cause was the failure of the dosage to immunize for three weeks, the interval was shortened to two weeks and the dosage to 500 or 1,000 units, according to the size of the child.

During the four years since this change was instituted there have only been 19 cases of clinical diphtheria among the children, an average of about five a year. Of these 19 cases, all but five are explainable by the interval still being too long in special cases or that the serum was withheld for some reason. Examples of these were the following cases:

Child E. B., aged 8 years; developed a severe bronchitis and was considered so ill that the routine injection was not given: death on fourth day: post-mortem and bacteriological examination showed the bronchitis to be due to bac. diphtheria without membrane.

Child C. D., aged 7; no antitoxin administered for three weeks: faucial diphtheria developed; 10,000 units: recovery.

Child E. S., aged 8; routine injection—500 units—17 hours after reddening of throat with slight membrane: 10,000 units: recovery.

The five cases unexplainable by the length of the interval or the withholding of the routine dosage were laryngeal cases, developing in the active stage of measles. Four of these died within twelve hours of the first ascertainable symptom, in spite of large single and repeated injections of serum. The fifth case, seen within one and a half hours of the onset of symptoms, was given 18,000 units extravenously and 32,000 subcutaneously, recovering, only to die of pneumonia five days later.

The failure to recognize this severe and overwhelming toxæmia in the earliest stages as due to the diphtheria bacillus was owing to the fact that no membrane was formed, so that if it had not been for the findings microscopic and bacteriological they would have been placed in the class of laryngitis with inspiratory pneumonia. These cases had received the routine injection of