

## THE USE OF ANTI-DIPHTHERITIC SERUM AS A PROPHYLACTIC AGENT AT THE HOSPITAL FOR SICK CHILDREN.\*

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Diphtheria has, by reason of the use of the anti-diphtheritic serum, been removed from the position of one of the most dreaded of diseases, no longer giving rise to the extreme horror and panic in the family or in the institution. Yet its incidence has not been reduced at all, so that the quarantine measures must remain as strict as ever, and the inconvenience and the loss occasioned by these measures be felt all the more acutely, now that the dread has been removed. Nowhere does the quarantine interfere with the normal routine so much or with such disastrous results as in children's hospitals, and the object of this paper is to bring up to date the results obtained in the Hospital for Sick Children by the use of the anti-diphtheritic serum as a prophylactic, in the endeavor to overcome the incidence of the disease and the paralyzing effect of the quarantine.

To understand more fully the conditions existing in children's hospitals and the limits of the use of the serum as a prophylactic in other institutions, it will be well to briefly recall the method of transference and the main points in regard to the incidence of the bac. diphtheria.

Bac. diphtheria, like all similar organisms, must be conveyed from person to person under the laws governing the bodily movement of any solid particles of matter; to remove it from one site to another there must be the application of force. The common site in man of the growth and development of this bacillus being in the upper air passages, the force applied must be either that of the outflowing air current or the intervention of some external agent.

The ordinary expiration is not forcible enough to expel any particles, but forcible talking, laughing, crying, coughing or spitting detach many bacilli-laden droplets and particles and distribute these to all parts of a room; hence it will depend upon the number of bacilli expelled and the secondary forces which keep them circulating in the air whether they will gain access, like any other solid particles, to the air passages of a second

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