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Concentration of the protective bodies in anti-pneumococcus serum by means of specific precipitation.

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The addition of a water-clear extract of pneumococcus to the homologous antiserum produces a voluminous precipitate which carries down with it the agglutinins and practically the totality of the protective bodies against pneumococcus infection in animals. This precipitate when washed and resuspended in saline solution to the original volume of serum protects as well as the whole serum. The protein content of such solutions has varied from 0.09 to 0.34 per cent. as contrasted with about 6 per cent. in the original serum. The solution of this precipitate is not necessary to insure protection, and when produced by dilute alkali (NaOH) frequently destroys the immune bodies.

This concentration of the immune bodies differs from the method described by Dehne and Hamburger[1] for fixing tetanus antitoxin by means of antihorse serum and similar results with diphtheria antitoxin described by Weill,—Halle and Lemaire[2] in that the immune serum serves as a precipitin and not as precipitogen. By this reversal of reaction a corresponding reversal of dosage is possible which renders the method practical for concentrating the immune bodies for possible therapeutic use. An additional advantage of this method over concentration by chemical precipitation is that it can be rapidly and aseptically prepared and has a much lower protein content.

[1] Dehne and Hamburger, "Experimental Untersuchungen über die Folgen parenteralen Einverleibung von Pferdeserum," *Wein. Klin. Wochens.*, 1904, XVII, 807.

[2] Weill, Halle and Lemaire, (1) "Les Conditions de persistance de l'Immunite passive antidipterique. Ses relations avec la presence du serum antitoxique dans le sang et avec l'apparition de precipitine;" (2) "Antitoxine et Precipitine," *Comptes rend. de Soc. de Biol.*, 1906, LXI, 114, 407.