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Chemotherapy of *B. pertussis* Infections of Mice.

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It has been demonstrated that sulfanilamide and other sulfur-containing compounds possess a surprising degree of versatility as chemotherapeutic agents in a variety of very dissimilar infections. The amenability of *B. pertussis* infections in mice to chemotherapy has, up to the present, not been investigated.

Kolle flasks containing Bordet-Gengou medium were heavily seeded with a broth suspension of *B. pertussis* (9077 M_2)* and grown for 68 hours. The growth from 3 flasks (about 290 sq. cm.) was suspended in 24 cc. of broth and 0.5 cc. of this suspension was injected intraäbdominally into each of 40 mice. A simultaneous titration subsequently showed this inoculum to be between 2 and 4 M.L.D.

These mice were divided into 4 groups of 10 each. One group remained untreated. The other 3 groups were treated orally one hour after the inoculation as follows: the first, with 25 mg. of sulfanilamide;† the second, with 25 mg. of 4,4′-di-(acetylamino)-diphenylsulfone;‡ and the third, with 25 mg. of 4,4′-diaminobenzenesulfonanilide.‡

Within 21 hours 80% of all animals were dead, and the remainder, in less than 45 hours. Treatment did not affect even the survival time. Titration mice infected with one-half of the inoculum were dead in less than 21 hours, while other titration animals infected with smaller doses remained alive.

Identical results were obtained in another series of 40 mice similarly infected and treated.

Conclusions. Sulfanilamide, 4,4′-di-(acetylamino)-diphenylsulfone, and 4,4′-diaminobenzenesulfonanilide have no therapeutic value in the treatment of mice infected intraäbdominally with virulent *B. pertussis*.

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† Kindly supplied by E. R. Squibb & Sons, New York.

‡ Synthesized and donated to us by the Monsanto Chemical Company, St. Louis, Missouri.