FIVE YEARS' EXPERIENCE WITH THE COLD-BATH TREATMENT OF TYPHOID FEVER.

By William Osler, M.D.,
Professor of Medicine in the Johns Hopkins University, Baltimore.

During the first year of the hospital service, typhoid fever was treated symptomatically. The number of severe cases admitted was unusually large, and there were eight deaths among thirty-three patients—a percentage of 24.2. For the past five years, ending May 15th, 1895, systematic hydrotherapy has been used—the method of Brand, with certain minor modifications. In the first Report (Vol. IV.) the plan was given; but I may repeat here that each patient receives a tub-bath of twenty minutes at 70° every third hour, when the rectal temperature is at or above 102.5°. Frictions are applied in the bath, and a warm drink or a stimulant is given afterwards. In a large proportion of the cases no other treatment is employed. If the pulse is feeble whisky is given, and strychnia. The diet is either wholly milk or in part broths, and egg albumen. It may be noted that all the cases come under my immediate care, or, in my absence, that of Dr. Thayer, the Associate in Medicine.

In estimating the value of any plan of treatment, it is important that all circumstances should be taken into account. In the previous report I dealt with the statistics as so many patients admitted, of whom so many died; and this, I think, should be done in all institutions—give the total number of cases of each disease treated to a conclusion, and the number of deaths, irrespective altogether of the length of stay in the hospital, or the condition on admission. General hospitals are everywhere liable to be repositories of the more severe or troublesome cases, and in typhoid fever, more particularly of protracted cases in which serious symptoms have developed late in disease. A high rate of mortality in any given acute disease may be an indication of a special usefulness of the institution. As already given, the general statistics of the hospital in typhoid fever are:

Cases admitted during the six years ending May 15th, 1895	389
Number of deaths	34
Percentage of mortality	8.7
Cases admitted before the introduction of hydrotherapy	33
Number of deaths	8
Percentage of mortality	24.2
Cases admitted since the introduction of hydrotherapy	356
Number of deaths	26
Percentage of mortality	7.3
Number of cases bathed	299
Number of deaths in the bathed cases	20
Percentage of mortality in the bathed cases	6.6

The percentage 7.3 represents the total mortality during the past five years; but as it does not represent the mortality of the cases treated by hydrotherapy, the figures must undergo a further analysis. Many circumstances interfere with the systematic carrying out of the plan, among which the following are the most important.

In the first place, a number of cases are admitted in the second week, and even in the third week, with a falling thermometer, and the fever constantly below 102.5°. Cases, too, are admitted early, which have low temperatures and mild symptoms throughout. Brand and others urge that these should also be bathed; but in a large proportion of all such cases, this seems superfluous. There are exceptions, however,—cases in which the fever is low on admission, and even remains low for a week or ten days, to be followed by active and threatening symptoms. Nos. *XXII* and *XXIX* of the fatal cases were of this kind, and in both one could not but regret that the baths had not been used from the outset. In the very mild cases, seen more frequently in private than in hospital practice, the baths are unnecessary. Last year we admitted an unusually large number of such mild cases.

In the second place patients are admitted late in the disease, and are too ill to bathe. A patient brought in at the end of the third week, with high fever, rapid, feeble pulse, meteorism, and diarrhœa, stands, I believe, a much better chance, with careful sponging, to reduce the fever, than