

pondingly with the temperature, but its effect is only temporary. In two or three hours, less in severe and obstinate cases, the temperature will be as high as before and the bath must be repeated and the process *used must be continued as long and as often as the temperature approaches a dangerous point.*

This treatment should be inaugurated and superintended by the physician in person. If the baths are administered by inexperienced nurses more harm may be done than good accomplished, for the baths stimulate the heat-producing functions of the body, and unless the abstraction is thorough the good effect will in this way be counteracted. The nurses must be instructed thoroughly in the discharge of their duties. They must be taught how to take observations of the temperature with the clinical thermometer; in bad cases it should be used hourly and the result recorded for the information of the medical attendant. They must be taught how to temper the bath and cool it down, which must be done by rapidly drawing off the water as it is warmed by the abstraction of the heat from the patient's body, and adding cold water. I have seen the temperature of the water in the bath-tub rise five or six degrees in less than that many minutes, so rapid is the abstraction. Nurses of ordinary intelligence will soon master the situation.

As soon as the diagnosis is well established, or before, if hyperpyrexia is an element of danger (for this treatment is appropriate for all diseases characterized by high temperature), this treatment should be begun. As soon as the temperature of the patient in the axilla reaches 103° F. a full length bath should be administered and repeated as often as the temperature reaches that point. It may require a dozen or more baths per day in obstinate cases during the first few days of the fever. This treatment, even thus early in any given case, has to a certain extent a prognostic value; for if, during the first week, we have a patient with an extremely high temperature which is controlled with difficulty we may confidently expect a severe case during the second and third weeks. Although these baths in most cases are agreeable to the patient they sometimes become irksome and distasteful long before the necessity for them ceases; fortunately we possess an article in that much abused drug, Sulph. Quinia, which *supplements the action of the water and obviates the necessity for such*

frequent repetition of it. If given at the proper time and in sufficient quantity it not only produces a full and complete *remission*, but prolongs it until the following day is well advanced, even in the early stages of this disease, and renders the bath unnecessary during the latter period of the case. So far as our present knowledge extends the sulph. quinia is by far the most valuable article in the materia medica for lowering temperature in hyperpyretic conditions, yet it has no power to cut short the disease, at least in doses which can safely be used. But in order to accomplish a good result it must be administered with an unsparing hand and *at the proper time of day*, for little or no good will be accomplished by giving it in small portions scattered throughout the twenty-four hours. It is folly to give it in any quantity *in the morning* in order to prevent *the evening exacerbation*, for it cannot be done in this disease. The patient will suffer all the inconveniences of the remedy with no corresponding benefit. But, on the contrary, if it is given in one full dose of from 25 grs. to 50 grs. *in the early evening* it will strike the morning remission with the full force of the remedy, and the consequence will be that the temperature *will approach the normal closely*, and in the latter stages of the disease fall below with a cessation of all the dangerous symptoms which may have been present. This remission will continue from twelve to forty-eight hours, according to the obstinacy of the particular case or the period of disease at which it is administered, allowing time for the vital organs to cool off, thus preventing the congestions, inflammations and degenerations of tissue which is undoubtedly the cause of the heavy mortality of this disease. Quinia given in this way does not produce the unpleasant effects so often seen to follow the administration of small doses continued for several days. It is the *tonic* and not the *sedative* dose which produces the unpleasant cinchonism. No harm has ever been known to result from its use in this way. Lieberman has administered it over ten thousand times by this method, giving as much as forty-five grains at a single dose. Jurgensen gives seventy-seven grains as his maximum dose, and I have administered as much as seventy-two grains at a single portion. I have now administered this remedy in antipyretic doses about fifteen hundred times with no unpleasant effects, save a transient cinchonism, and when given in the evening the patient usually sleeps through this.