

June 9, 1936

Dr. A. W. Hammond
100 Front Street
Beaver Dam, Wisconsin

Dear Dr. Hammond:

I have been late in replying to your letter of May 20th because of the pressure of other work. However I am entirely willing to express my point of view upon the question which you have raised.

My personal feeling about blood examinations of all types is that they are not entirely adequate. We have studied for a number of years the relationship between stippling of the erythrocytes as well as determinations of the haemoglobin and complete red blood cell counts to lead absorption. In general it is true, in my experience, that under conditions of severe exposure to lead compounds there is a distinct tendency to an increase in the number of stippled cells. This is equally true of the reticulocytes. In our experience the method of McCord is not more useful than any other method. We prefer a much simpler method of staining and counting stippled cells and have found high stippled cells to be as good an indication as any other blood change. However, in chronic lead exposure the stippled count is not entirely adequate. Moreover cases of rather acute plumbism may occur without a prodromal elevation of the stippling count. Thus in the individual case one may miss the mark by depending upon the blood changes. I prefer to depend upon a complete careful clinical examination of the patient from head to foot, for the actual presence of prodromal symptoms is the most important warning of impending serious plumbism.

As to the lead analyses of the urine, the value of these is dependent upon the accuracy with which they are done. The range of normal values by sensitive methods is now well established. The mere detection of lead in the urine is of no value. One must have accurate quantitative determinations. The usefulness of such determinations is that they show the extent of the lead exposure and absorption of an individual. One now knows that if the lead excretion of a group of men is above a certain level, cases of lead poisoning are likely to occur. The higher the lead level, the greater the frequency of occurrence of cases. Quantitative

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urinary analyses are useful in the estimation of the significance of occupational exposure. They do not, however, make a diagnosis nor do they predict a clinical outcome.

I am sending you herewith a reprint of an article in which I have expressed myself in some detail on the significance of the blood and urinary findings.

Very truly yours,

RAK:is

Robert A. Kehoe, M.D.