

June 19, 1941

Dr. Ralph I. Canuteson
Director, Health Service
University of Kansas
Lawrence, Kansas

Dear Doctor Canuteson:

After going over the information given in your letter of June 16th, I find myself at some loss to determine what diagnostic advantage could be gained by any spectrographic examination of the blood with reference to the absorption of benzene. It is conceivable that there may be some method of dealing with this problem by absorption spectrography, but if there is, I am not familiar with it. In any case our present equipment does not provide for absorption spectrography since we have been dealing primarily with metals, in which case emission spectrography only is advantageous. We expect eventually to do some work in absorption spectrography but we are not equipped for that purpose at present.

From the clinical picture which you have given, I should be very dubious of any significant effects due to benzol absorption. However I think this question might be answered more or less conclusively, at least for present purposes, by a white count and a differential leucocyte count so as to determine whether or not there has been any demonstrable damage to the hematopoietic tissues. It seems improbable that there will be any very significant change considering the normality of the erythrocyte count, but in any case the leucocytes should show definite abnormality if there has been any significant effect from benzol.

It is conceivable that your patient has had significant lead exposure. This is not highly probable among ordinary painters, but if this man has been engaged in scaping, sand papering or, more particularly, in burning surfaces which have been painted with lead paints, he may have had significant lead exposure. It is not likely that this is the case

since you report that there is no stippling of the erythrocytes. On the other hand while stippled cells are always present, their number may not be very great and they may be missed in a more or less casual examination of blood smears. If, after going into this man's history in some detail, you consider it worth while to consider the possibility of lead absorption, I should be glad to send you the necessary containers with instructions for collecting the samples of blood and urine for analysis to determine the degree of lead absorption. I may say, however, that even if the history is suggestive of lead exposure, it is scarcely to be anticipated that lead would be an important factor in this man's case, unless there are certain more or less characteristic symptoms of lead intoxication, especially those involving the gastro-enteric tract.

Very truly yours,

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Robert A. Kehoe, M.D.

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