January 13, 1970

Richard A. Carlson, M.D., F.A.C.P.
345 Goundry Street
North Tonawanda, New York

Dear Doctor Carlson:

I am grateful to you for sending me the information concerning your patient, Miss Jean Hanel. I had suspected, from the letters which I had received from Miss Hanel, much of what has been revealed by the records which you have sent me, but I am now on much firmer ground.

My letter to Miss Hanel was in no sense deceitful, in indicating that I did not consider it necessary or presently feasible for me to interview her or to carry out further examinations. Nevertheless, I hesitate to sidestep appeals for assistance, even when I believe them to be misplaced. You have relieved me from any twinges of conscience in this instance. It is evident now (I had no way of knowing the true situation, for my experience has not been altogether reasuring as to the adequacy of clinical, and, in particular, the analytical investigations of this type) that Miss Hanel has had good advice based upon a good background of information, and that I could not have contributed anything (except kindly consideration) of significance to the elucidation of her problem.

I write this to you as a matter of courtesy between us, and I do, indeed, appreciate your courtesy to me. In view of the fact that it is my duty to do so, as a physician, I am writing to Miss Hanel. I am indeed sorry for her and, if I could do so, I would relieve somewhat her deep anxiety concerning the causation of her illness. I have no faith that I can do even this, but I shall do my best. I shall also express my belief that she is in good hands. I shall do this, I can assure you, in no patronizing sense. I am aware of your difficulty in dealing with such a patient, and when I wish her well, I am truly sympathetic with you.

With respect to the facts, with respect to Miss Hanel's experience with lead, and as to the evidence of her absorption of unusual quantities of lead at any time, let me make two comments. The quantities of lead reported as having been found in her urine have never been above the commonly occurring quantities found in the urine of ordinary citizens who have not been subjected to more than the current environmental conditions of exposure to lead. The expression of the output of lead in the urine per day must always be looked at from the aspect of the volume of urine voided. The greater the daily volume of urine, the larger is the quantity of lead excreted per day; the daily output of an individual can be doubled by the simple measure of quadrupling the intake of water. Looking at the matter on a different basis, we have shown that a simple concentration dilution test may alter the urinary concentration of lead from the level of 0.07 mg. per liter to 0.21 mg. per liter within the same twenty-four hour period. That is, when the throughput of water is large, the output per unit of time is enlarged, but the concentration is low, and vice versa. However, I shall not

labor the point, beyond pointing out that there is a large body of information on this matter, so that the physician must be careful not to be dogmatic, as your colleague, Dr. Klendshoj, was in interpreting the analytical results.

In short, there is no foundation in the records in my hands for the slightest suspicion that lead is involved in inducing Miss Hanel's clinical condition.

As to the role of chromium, I do not have at hand, such experimental information, of my own or of others, as would enable me to judge the situation on physiological grounds with anything like the assurance shown above in the case of lead. There is nothing, however, in my occupational clinical experience which gives me any anxiety in Miss Hanel's case, in saying that there is no satisfactory basis for suspecting that chromium has played any part in her illness.

May I thank you again for your courtesy, and wish for you more success than seems probable, in dealing with this unfortunate woman.

I return, herewith, the records which you have sent to me.

Cordially yours,

Robert A. Kehoe, M.D.
Professor Emeritus of
Occupational Medicine

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