

January 31, 1957

Air Mail

Dr. D. Kerr Grant  
231 Macquarie Street  
Sydney, Australia

Dear Doctor Grant:

You are right, I think, in your decision to obtain the equipment for collecting samples of blood from the Becton, Dickinson Company, and I believe that our best service to you, in addition to the information which you request, would be to send you a package containing some of this equipment.

Since I am just about to depart on a trip to the West Coast, I shall ask Mr. Cholak to look after this for you. You can reimburse us for this equipment whenever and however this can be done most conveniently.

In answer to the question in your previous letter, I shall describe the procedure which we have advised and which is being followed by the hospital staff. On confirmation of the diagnosis by analytical means, or prior to so doing, if the urgency of the case demands avoidance of delay, Edathamil Calcium-Disodium is administered for 5 days or perhaps for a week. About 2 weeks later (after the disturbed metabolism has stabilized somewhat), further analyses are made. If the blood level is then above the danger point - 0.08 Mg. or more per 100 grams of whole blood, as determined by our methods of analysis - a second course of therapy is instituted. The procedure continues in this manner until the blood level is at 0.06 mg. or less per 100 grams of blood, and until it remains at or below this level after a series of check analyses at intervals of 3 or 4 weeks. (This procedure is to establish the fact that the "body burden" of lead has been lowered to the point at which the lead metabolism will not permit the lead content of the soft tissues (including the blood) to reach significant levels of concentration. In this connection I must correct your belief that the "metabolism of stored lead" is influenced by acute toxic or febrile disease. "Mobilization," so called, does not occur under these conditions. This idea, developed originally by Aub and his associate at Harvard has been exploded completely. It arose out of misinterpretations of analytical evidence at a time when our analytical precision was inadequate to investigate blood concentrations and urinary lead excretion. The sequence of events in association with EDTA therapy reveals the incorrectness of that idea. When this agent is employed, the soft tissues are freed rapidly of

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their lead content to decreasingly low levels as the therapy proceeds. The skeleton is largely unaffected. However, in the period after therapy the lead in the skeleton slowly regains its equilibrium with the soft tissues, as shown most readily by the return of the blood level to a higher point, if the burden in the skeleton is significantly high.

We have been unable to influence the lead metabolism in a significant manner (i.e. to more than a very slight and physiologically unimportant extent) by any other procedure than that of using BAL or EDTA. Actually an increase in the water throughput influences the loss of lead from the body more effectively than does any other procedure employed with the two exceptions referred to above.

Repeated courses of Edathamil, with due care not to give over dosage, and with careful clinical and analytical supervision are, therefore, in my opinion, the proper procedure, until the blood level reaches a safe level and remains there. This procedure followed up will also insure that no recurrence of the exposure returns the child to his former state.

I trust that these remarks and our efforts otherwise will aid you in your work.

Sincerely yours,

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Robert A. Kehoe, M. D.

RAK ef

Dictated but not read.

P.S. I have been in touch with the representative of Becton, Dickinson Company who will advise in about a week how the matter of getting the equipment to you, billing, etc, <sup>can be handled,</sup> When I hear, I will advise you. However, I have ordered 1 dozen each of Vacutainer Needles No. 3200N, Vacutainer Plastic Holders No. 3200H, and Steri-tubes and 100 Vacutainer Tubes No. L3208 with stoppers, for billing directly to you.

Enclosed are "Directions for Use of B-D Vacutainer."

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