University of Cincinnati

Cincinnati, Ohio 45219

DEPARTMENT OF ENVIRONMENTAL HEALTH
Kettering Laboratory, College of Medicine, Eden & Bethesda Aves.

September 1, 1970

John D. Welch, M.D.
Marquam Medical Center
2220 S.W. First Avenue
Portland, Oregon 97201

Dear Doctor Welch:

Your letter of July 31 is before me, now that I have returned from a vacation, and have attended to the necessary personal affairs which came up during my absence, and I shall try to respond to it.

I think, however, that the best advice I can give you, is to send a reprint of a chapter which I prepared some years ago for publication in one of the volumes of a text on "Industrial Hygiene and Toxicology." Nevertheless, there are other things to be said in response to your request for information.

First of all, while a physician-consultant to industries which produce or make use of lead, must of necessity, take care of persons who are affected by lead or threatened by its toxic effects, his principal role is that of seeing to it that lead poisoning is prevented. The means of prevention are available, the law requires that safe conditions be developed and maintained in most of our States, and the duty of a physician is primarily to prevent this disease within any industry for which he is responsible. This is only a question of the willingness of the management, under wise guidance, to spend the money required to provide safe conditions.

Therapy, therefore, is a matter of strictly secondary importance for there should be no cases of poisoning in a properly managed industrial plant. Moreover, it is fair to say that there is no really satisfactory therapy of lead poisoning, aside from the relief of pain. The man with colic can be made much more comfortable by appropriate therapy (see the enclosed booklet for a discussion). The use of a chelating agent, as Na2Ca Versenate, is useful physiologically (for eliminating lead from the body somewhat more rapidly than can be done by simple elimination of the exposure), but it is not to be regarded as a generally successful means of treating the symptoms of lead poisoning. It should not, in my opinion and practice, be employed as a prophylactic, either orally or otherwise, except in special instances, for the function of a physician is not to try to offset the threat of dangerous conditions of employment, but rather to advise as to how these conditions can be remedied. We have, in the United States, a large number of cases of lead poisoning in industry, because the persons responsible for the conduct of the industry do not, unless they are urged by physicians and industrial hygienists, xxx set about to correct the unsafe conditions in which they employ men (and sometimes women) to work for them. This is fundamentally wrong, and physicians of good will and training cannot do their professional duty to society unless they insist upon the provision of a safe working environment.

Persons should be removed temporarily from employment, following their absorption of excessive amounts of lead because of unsatisfactory working conditions, until they excrete the excessive amounts of lead. If they are not sick, they need no other

treatment than removal from exposure. (I will not, except under very unusual conditions, treat men who are not ill. What we are doing with chelating agents in this way, is bad medical practice, for we do not understand the full effects on a man of giving him chelating agents, and we should not administer them for any other reason than that of specific therapy.) When the lead has been lost from the body to such an extent that the blood returns to a satisfactory level, the employee can safely be returned to his former employment, provided the evil conditions, which caused his excessive absorption of lead, have been identified and brought under a proper degree of control. This constitutes the proper practice of occupational medicine in the lead trades. Anything else, on the part of the physician, results in the continuation of industrial conditions which will produce other victims of lead poisoning. We shall never be able to arrive at a situation in which men can work safely in the lead industries and trades, until we can induce physicians to act in this manner. It is appalling, how much lead poisoning occurs in this country within its industries. The fault here lies primarily, of course, with industrial managers, but the fault behind the scenes results from the fact that these men are not properly and urgently advised by their physicians, or properly assisted by technical people who know how to design plants and plant processes to meet adequate specifications of safety. The seemingly ideal conditions whereby lead poisoning can be eliminated from American industry, could be achieved in one generation (approximately 30 years), if physicians generally could be indoctrinated systematicall to the point of doing their professional duty.

I trust that you will forgive my insistence upon the necessity of a changed point of view in this matter, but I have seen so much unnecessary suffering from illness and disability in the lead industries, which the normal armamentarium of industrial medicine and hygiene is so fully capable of preventing, as to be impatient and critical. What seems so easy (as has been proved again and again) is so slow in coming about, that I cannot be either tolerant or optimistic. I know, all to well, the economic problems of the small operators of secondary smelters, brass foundries and storage battery plants, but I must insist that if they cannot afford to protect their employees against illness and disability due to the conditions of work, they have no place in the social and economic world of the present.

But enough! You did not ask me for a treatise on economics and preventive medicine, but rather for my advice as a physician. I have given you the information which my professional experience (and experimental work) has brought to me, and if I have failed to clarify matters and to give you valid assistance, I hope you will put further questions to me.

With best wishes,

Sincerely yours,

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

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enclosure as stated

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INTERNAL MEDICINE
CARDIOLOGY
INDUSTRIAL MEDICINE

July 31, 1970

Robert A. Kehoe, M. D.
Kettering Laboratory in the Department
of Preventive Medicine and Industrial
Health
College of Medicine
University of Cincinnati
Cincinnati, Ohio

Dear Dr. Kehoe:

I am Medical Consultant for a number of industrial plants where there is definite exposure to lead fumes and dust. I would like to receive information on the following:

1. Reprints of your Harben lectures of 1960.

2. Information as to the most up-to-date therapy.

3. Your opinion of treating the individual with an elevated blood lead but without symptoms with an oral medication.

Any other information that you might send will be greatly appreciated, and I wish to thank you for your time and consideration.

Sincerely,

John D. Welch, M. D.

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