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Memorandum of an informal meeting on a proposed Symposium on Lead to be sponsored jointly by the American Medical Association and the Lead Industries Association, February 7, 1946 in the office of the Lead Industries Association, New York

PRESENT

Dr. Joseph C. Aub
Mr. F. F. Colcord

Mr. Philip Drinker
Mr. Andrew Fletcher
Dr. A. J. Lanza
Dr. Willard Machle
Mr. William C. Wilentz

Harvard Medical School
United States Smelting Refining
& Mining Co. Inc.
School of Public Health, Boston
St. Joseph Lead Company
Metropolitan Life Insurance Co.
Ethyl Corporation
National Lead Company

Dr. Carl M. Peterson

Secretary, Council on Industrial
Health

Mr. F. E. Wormser

Secretary-Treasurer, Lead Industries Association

Mr. Wormser thanked those present for attending and said he believed a Symposium on Lead was timely because by and large physicians in the United States had either not availed themselves of the existing information on lead poisoning or were confused by different or erroneous viewpoints expressed in some medical publications. He indicated that the experience of the Lead Industries Association had shown an extraordinary lack of knowledge about lead poisoning among some physicians and felt that the American Medical Association had an unexampled opportunity to correct this situation. He had observed that the excellent study, "Occupational Lead Exposure and Lead Poisoning" published by the American Public Health Association apparently had but limited medical circulation and that the time was now ripe for the Medical Association to carry this study one step forward by stressing the subject from the standpoint of public exposure to lead where, unfortunately, most misstatements about lead poisoning are to be found in the medical literature.

He said that the Lead Industries Association in 1937 had held a symposium of its member company physicians in Chicago on lead poisoning, a symposium that had met with great acclaim for it showed that even among the member physicians themselves, handling the question of lead exposure and lead poisoning regularly, there was great desire for further enlightenment. He pointed out that the lead industry from mine to finished product was really a huge laboratory with exposures for certain operations of a rather high order and yet excellently controlled, and that perhaps the industry could furnish a lot of background medical information based on its own experience which would be useful to the symposium.

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He said that the Lead Industries Association was prepared to cooperate fully in any joint program and could supply background information which would educate the doctors to a broad view of where lead is used with public exposure and where it would not be found, and so save doctors the embarrassment at times of making diagnosis of lead poisoning when obviously lead was not involved. He said that, after all, the Lead Industries Association would have to take its cue from the American Medical Association in cooperating in the symposium and that he suggested Dr. Peterson take the chair and preside over the meeting so that the entire problem could be explored by those present.

Dr. Peterson then took the chair and said he felt that the discussion with the Lead Industries Association had convinced him there was a fine opportunity for the American Medical Association and the Lead Industries Association to perform an educational service for the doctors which would be useful to the profession and to the public. He felt that the symposium should be under the joint sponsorship of the two organizations. He invited suggestions of the group as to what would be the best scope of a program and the best procedure to follow.

Dr. Machle felt it was desirable to crystalize the nature of the problem before we could attempt to solve it. He ventured the thought that it was desirable to inject fresh information in the symposium rather than to rehash existing material and that perhaps a distinction should be made between the question of occupational exposure and public exposure to lead.

Mr. Fletcher was reminded of St. Joseph Lead Company's experience at Josephtown, Pa. where prospective employees shunned employment because they understood it was operated by the St. Joseph Lead Company and assumed it was lead whereas the operation was entirely zinc oxide production.

Dr. Wilentz said he had discovered a difference of opinion among doctors who had read a paper he had submitted recently for publication in a medical journal, which emphasized the need of some clarification of viewpoint.

Mr. Drinker recalled the days of Alice Hamilton who had found no hazard in the handling of lead sulphide in the mining of lead ores whereas the U. S. Public Health Service standards today establish a universal tolerance for lead that was difficult to meet particularly in mining. He said that industry could supply a lot of data on the handling of lead concentrates that might be interesting to a symposium and perhaps lead to a change in Government viewpoint on lead tolerances.

Mr. Fletcher said it was important to develop the thought that where the lead hazard occur it could be controlled and also that lead poisoning was readily curable.

Dr. Aub felt that currently it was of the greatest importance for doctors to understand:

- (a) how to make a diagnosis for lead poisoning, and
- (b) how to treat lead poisoning.

He said it was extremely important to make an early diagnosis of the disease otherwise a determination months later was purely guess work. It was important to develop the amount of exposure and to obtain quantitative data accurately on the urine and blood.

Dr. Peterson said that the enrollment at the Annual Congress on Industrial Health would likely reach 800 to 1,000 persons, but not all of these would be physicians, and he hardly expected that all of them would attend a lead symposium. Dr. Peterson conferred with Mr. Drinker as to the possibility of holding it in Boston in cooperation with the School of Public Health. Mr. Drinker thought this was an excellent idea and felt sure that the Harvard authorities would be pleased to cooperate.

Dr. Aub thought it would be desirable not to place the emphasis altogether on lead at the symposium but merely to use lead as a prototype of all metal poisoning inasmuch as all heavy metals acted closely alike in their toxic effects.

Mr. Drinker felt it was desirable to consider some means of educating community medical centers to disseminate whatever information is obtained by word of mouth through appearances before medical groups in industrial areas, particularly where knowledge of lead was fragmentary at the best.

Mr. Colcord brought up the question of the unethical doctor and admitted that he was difficult to control.

Dr. Aub thought more trouble arises from inaccurate analyses of lead in the urine and blood than from any other single source of diagnosis. He said he himself did not realize until recently that the American Public Health Association had a companion volume of its Committee report on Occupational Lead Exposure and Lead Poisoning, outlining, "Methods for Determining Lead in Air and in Biological Materials." He also thought it might be wise to consider ultimately stimulating the establishment of centers for accurate analytical work on metals throughout the United States.

Mr. Wormser called attention to the inaccurate analyses he had recently observed in an investigation of alleged lead poisoning in infants in Boston, where the work had been done by Massachusetts Institute of Technology and found to be faulty.

Dr. Aub recalled a similar experience in a recent murder case where a local diagnosis had proven to be unsubstantiated when submitted to the U.S. Public Health Service for determination.

Dr. Machle agreed that the emphasis on the proposed symposium might well start with a consideration of an accurate diagnosis.

Dr. Peterson thought the symposium should not be confined to occupational exposures but should go into the question of public exposure as well.

Dr. Wilentz described Mr. Wormser's recent appearance before a group of medical men at the New Rochelle Hospital, which he considered enlightening.

Mr. Wormser said that this experience had indicated to him that in a representative high class community such as New Rochelle the need of education among the doctors was quite apparent and that he hoped that the work of this symposium, if spread around the country, would help to prevent inaccurate diagnosis of lead poisoning among children and others. He said that his experience with some of the articles which had appeared in the Journal of the A.M.A., particularly that of Dr. Williams on Chronic Lead Poisoning, and Dr. Rathmell of Norristown, Pa. on an acute attack of lead poisoning in a child from squeezing orange juice into an aluminum cup, had shown that one doctor was prone to build on the faulty premise of another, without careful investigation of his premises.

Dr. Machle thought it was important in a symposium not to make them too long drawn out, that the average doctor was too pressed for time to read any encyclopedical observation, that whatever was presented should be summarized so as to be of greatest use to the profession at large.

Dr. Peterson thought that a start might be made by having the Lead Industries Association prepare a paper on the general subject of the occurrence of lead in the United States so as to give the doctors a background on the subject and express industry's viewpoint. Mr. Wormser agreed to undertake this task.

Dr. Peterson thought the symposium might treat of:

- (1) The occurrence of lead poisoning,
- (2) The diagnosis of lead poisoning, and
- (3) Management of lead poisoning cases.

Dr. Aub questioned whether diagnosis could be covered satisfactorily in one session, that it was important to get specialists on each element in the problem for example, one man on blood, etc., and that it might be desirable to have a series of papers on the subject.

Dr. Machle thought it might be well to have a series of authorities on the subject.

Dr. Aub said that lead was not very toxic. Apparently every metal with an insoluble phosphate had some toxic properties. He again emphasized his feeling that the key note of the symposium should be that lead was merely a prototype and that the entire approach might well be expanded to cover all the heavy metals.

Dr. Machle thought that in lead poisoning it was essential

- (1) to have a history of the exposure,
- (2) accurate diagnosis, and
- (3) confirmatory laboratory findings.

He summarized his views as follows:

1. That an educational program must be backed up by a systematic research program closely related to it.
2. Plans for such program should emerge from deliberations of people with knowledge of the lead industry, research, and the medical profession; the direction the research takes not being determined entirely by those who will prosecute it.

Mr. Drinker echoed Dr. Aub's comments about lead and felt that the metal had been kicked around unnecessarily and that it was a good time to correct this situation.

Mr. Wormser suggested that the U. S. Public Health Service be called in to play a prominent part in the symposium as it possesses a vast amount of experience on both occupational problems involved and also on the question of measuring the public hazard of metal poisoning.

Dr. Peterson summarized the meeting by stating:

(1) It was the understanding of the group that a series of symposiums on metal poisoning, with initial attention to lead as a prototype for metal poisoning, was highly desirable.

(2) The original meeting would be the joint effort of the American Medical Association, Lead Industries Association, U.S. Public Health Service, and the American Public Health Association as cooperating agencies.

(3) That a full day might be devoted to aspects of the lead problem as outlined at the meeting, particularly the diagnosis and the management of lead cases.

(4) The Lead Industries Association would be called upon to present the industry's side of the problem with background information.

(5) Some papers might be submitted on occupational experiences.

(6) A series of papers on diagnosis and clinical management should be prepared.

Dr. Peterson inquired as to the suitability of creating a heavy metals committee which would act as consultants to the Council on Industrial Health in this field and which would call upon existing committees such as that on lead poisoning of the American Public Health Association to define the total problem.

Dr. Peterson said he would investigate the possibility of holding the meeting in Boston, and if not an effort would be made to go to Atlantic City, and finally that he would work with the Secretary of the Lead Industries Association in outlining a program which could be submitted to this same group for discussion and comment.