

BROOKHAVEN NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES, INC.

UPTON, L. I. N. Y.

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REFER:

ACH1.000014.004bm

June 3, 1959

Dr. H. David Bruner
Director, Medical Division
Division of Biology and Medicine
Atomic Energy Commission
Washington 25, D. C.

Dear Dave:

Enclosed is a copy of a memorandum I have written to Dr. Farr expressing my viewpoints on the indications for and scope of future medical surveys in the Marshall Islands.

In view of the possibility that the Trust Territory may have other opinions as to the scope and frequency of these surveys, I thought it would be best to get my thoughts on the matter recorded. Some of these thoughts were also expressed in the summary report of the present medical status of the Marshallese I sent you for the use of the State Department, but the memorandum contains an explanation of some of these points specifically concerned with future surveys.

Sincerely yours,

Bob

Robert A. Conrad, M. D.

Enclosure
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cc: Dr. C. L. Dunham

Good!

REPOSITORY Washington National Records Center
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BROOKHAVEN NATIONAL LABORATORY

MEMORANDUM

DATE: June 2, 1959

TO: Dr. L. E. Farr
FROM: R. A. Conrad
SUBJECT: Future Marshallese Surveys

I would like to express my viewpoints on various aspects of the medical status of the Marshallese exposed to fallout in 1954 as related to the need for future examinations and frequency and scope of examinations.

The people of Rongelap received a high sub-lethal dose of gamma radiation, extensive beta burns of the skin, and significant internal absorption of fission products. The gamma radiation exposure was the most serious and resulted in significant depression of the blood-forming organs. Even at five years post-exposure, it appears that the blood platelets have not returned completely to the levels of the unexposed comparison group, though there are no other evidences of their acute exposure other than atrophy and scarring of the skin from beta radiation in a few cases. These findings need continued observation. Very little is known of the late effects of radiation in human beings. Increased incidence of leukemia in the exposed Japanese has been noted and, in animal studies, the following late effects of radiation are believed to result: life shortening, premature aging, increase in degenerative disease, increased incidence of malignancies, opacities of the lens of the eyes, and genetic changes. At this stage of our knowledge, we must assume that any or all of these changes may occur in the exposed Marshallese. The seriousness of their exposure cannot be minimized.

Low levels of radioactive contamination persist on Rongelap Atoll. The levels are considered safe for habitation. However, the extent of contamination is greater than found elsewhere in the world and, since there has been no previous experience with populations exposed to such levels, continued careful checks of the body burdens of radionuclides in these people is indicated to insure no unexpected increase.

From these considerations it is apparent that we are obligated to carry out future examinations on the exposed people to the extent that they are deemed necessary as time goes on so that any untoward effects that may develop may be diagnosed as soon as possible and the best medical therapy instituted. Any action short of this would compromise our responsibility and lay us open to criticism.

In considering the possibility of carrying out the examinations at greater than yearly intervals, the following facts must be borne in mind. Continuity of these examinations is of utmost importance. Unfortunately, during the interim between the annual medical surveys, it has been apparent that precise information on the medical status of the people during the interim has not been available. The interim medical care of the people is in the hands of the health aide who has not sufficient background and experience to fill this need and the visits of the Marshallese medical practitioner to the island are too infrequent and short. In order that at least emergency care could be made available; a radio was installed on Rongelap several years ago and arrangements were made with the Naval medical group at Kwajalein and the Trust Territory group at Ebeye to evacuate emergency cases for diagnosis and treatment and, in addition, final diagnosis as determined by autopsy in fatal cases has been possible. Therefore, in view of these facts, increasing the interval between examinations will further reduce continuity unless more reliable interim arrangements can be made.

It is true that the medical program for the Rongelap people placed them in a more favorable position for medical care than is true of other Marshall Islanders which may tend to promote some dissatisfaction on the part of these less favored islanders. More important - is the fact that this special treatment unavoidably increased concern in the exposed Rongelap people about their health and no doubt along with other special treatment, such as food subsidies and other assistance, fosters an attitude of expecting handouts and tends to retard economic independence which is the goal of Trust Territory authorities. While recognizing these facts, I believe that they are secondary to our responsibility in continuing a medical program which will insure as rapidly and efficiently as possible the diagnosis and treatment of any radiation injuries which have been incurred in these people through no fault of their own. It is gratifying that the Trust Territory and the Atomic Energy Commission have whole-heartedly supported this objective and have assisted in every way possible in implementing the program.

The following specific recommendations are made:

1. A medical survey of the Rongelap people is considered necessary next year (1960). The survey would include only essential examinations which could probably be accomplished in about 10 days at Rongelap and with a slight reduction in the size of the medical team as compared with last year. A smaller ship than an LST (such as an LSM) might be satisfactory if available. The following important examinations would be carried out:
 - a) One blood examination instead of two (primarily to see if platelets are back to the unexposed population levels and secondly to survey for leukemia).

- b) Interval history and physical examinations (to determine if any radiation-induced changes are occurring).
 - c) Determination of body burdens of radioisotopes (to be carried out by radiochemical urinalyses and whole-body gamma spectroscopy) to determine if body burdens have reached equilibrium with the environment. Though no expected significant increase in body burdens is anticipated, continued checks on future surveys of radioactive levels in these people is indicated.
2. On completion of the 1960 survey, the time of the following survey should be determined based on findings of that survey and on the situation in regard to the medical observation and care during the intervening period.
 3. In order to help insure interim medical care of the Rongelap people, it is recommended that the authorities at Kwajalein and the Trust Territory at Ebey continue to arrange visits to Rongelap by physicians at monthly intervals and carry out evacuation and treatment of emergency cases.

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cc: Dr. C. L. Dunham
Dr. H. U. Bruner