



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

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November 29, 1974

Jon D. Anderson, Director
Division of Inspection

MEMORANDUM REPORT

DIVISION OF BIOMEDICAL AND ENVIRONMENTAL RESEARCH, HEADQUARTERS - REQUEST TO LOCATE UNIDENTIFIED SUBJECT KNOWN AS CHICAGO-III (41-2-117)

This investigation was predicated upon the request of Dr. James L. Liverman, Assistant General Manager for Biomedical and Environmental Research and Safety Programs, and Director, Division of Biomedical and Environmental Research, Headquarters, that an attempt be made to locate an unidentified white male who was involved in a clinical testing program at the University of Chicago Hospitals and Clinics, 950 East 59th Street, Chicago, Illinois, in 1945, but who was subsequently lost to followup.

BACKGROUND INFORMATION

Review of a report entitled Medical Industrial Hazards Section, dated January 19, 1946, and identified as MUC-HC-1187, disclosed that it states in part as follows:

"Special Urines: Two humans were injected with 94.91 µg of plutonium on December 27, 1945. The composition of the injected solution and the volume injected is given in Table I. The urinary plutonium excretion for the male subject is given in Table II and for the female in Table III."

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Examination of Table II and Table III, in the referenced report, disclosed that the former tabulated the daily plutonium urinary excretion data for a male known as MX-200, and the latter tabulated similar data for a female known as WX-300.

Examination of a publication entitled Plutonium in Man: A New Look at the Old Data, authored by Dr. Patricia W. Durbin, Radiobiologist, Biology and Medicine Division, Lawrence Berkeley Laboratory, formerly Lawrence Radiation

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FOR Human Radiobiology
COLLECTION CHR/Plutonium DOCS

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Laboratory, disclosed that, with respect to Chicago-III (CHI-III), it states in part as follows:

* * * * *

"Chi-3: White male, young adult, injected 12/27/45, ~ 0.085 μ Ci/kg $^{239}\text{Pu(VI)}$ citrate. Hodgkin's disease, no other information. Died ~ 170 days post injection, autopsy withheld. (Also designated as MX-200 in Ref. 48)."

* * * * *

Examination of Reference 48 disclosed that it states in part as follows:

* * * * *

"48. J. J. Nickson, E. R. Russell, and J. E. Rose: Medical Industrial Hazards Section and Biochemical Survey Section Reports, Metallurgical Laboratory (a) MUC-HG-1088 (May 1945), (b) MUC-HG-1187 (Jan. 1946), (c) MUC-HG-1194 (Feb. 1946), (d) MUC-HG-1203 (Mar.-Apr. 1946), (e) MUC-ERR-206 (May 1946), (f) MUC-ERR-211, (June 1946)."

* * * * *

The above report in Reference 48 (a) was not pursued because the date of the report, May 1945, preceded the known date of injection of the subject of the inquiry, December 27, 1945. A consolidation of the urinary excreta data on MX-200 (CHI-III), as shown in references (b) through (f) above, disclosed that 108 samples were taken from the unidentified subject over a period of 163 days post injection.

Mr. John C. Stuhlmann, Resident Investigator, Division of Inspection, stationed at the Chicago Operations Office, perused the records at the Center for Human Radiobiology, Argonne National Laboratory, and advised that no reports such as those in Reference 48 could be located beyond June 1946. He further advised that the only report which he could locate that related to the clinical testing program was identified as CH-3607-C, issued on October 2, 1946, the examination of which disclosed that it dealt with the distribution and excretion of plutonium in two human subjects designated as CHI-I and CHI-II, both of whose identities were already known.

RESULTS OF INVESTIGATION

At the outset of this investigation, Dr. George V. LeRoy, Director, University Health Services, and Professor of Medicine, University of Chicago Hospitals and Clinics, and Mr. Mark Olson, Director, Office of Medical

0002988

Legal Affairs, University of Chicago, were interviewed jointly. Dr. LeRoy requested that Mr. Olson be present at the interview because he (Olson) is always consulted on any matters concerning patient inquiries, to which the writer agreed.

Dr. LeRoy advised that prior to the writer's arrival, Mr. Olson's staff had done some preliminary searching of hospital records to try to isolate the subject of the inquiry; that the Registry of Neoplastic Diseases was scanned to identify young, male, adult, Hodgkin's disease patients; that this Registry was compiled during the mid-1950's by going back through autopsy and various other hospital records; that, in his opinion, the Registry is about 98 percent accurate; that while there was a possibility that the subject may not have been recorded in the Registry, it was the best available source since the subject's name was unknown.

Dr. LeRoy advised that the scanning process by Mr. Olson's staff resulted in nine potential subjects, with an average age of 26 years, which had been reduced to three, prior to the writer's arrival, the eliminations being made based upon admission or discharge dates, established dates of death, etc. He advised that the three patients who had not been eliminated at the time of interview had been "flagged" for further followup because the Registry data made reference to the administration of a "Substance X," and the fact that the clinical testing program at one time was shrouded in secrecy made the reference suspect.

Examination of the data accumulated by Mr. Olson's staff on the six patients eliminated from further consideration validated the basis for their elimination. Examination of the records of the three remaining patients considered as potentials disclosed that "Substance X" was in reality Nitrogen Mustard, which, Dr. LeRoy explained, was an experimental substance used at one time in Hodgkin's disease cases. He opined that two experimental substances would not have been administered simultaneously because of inconclusive results and potential legal implications. Based upon his opinion, these three patients were eliminated from further consideration, along with evidence on their medical records that they received continuing treatment, whereas the subject of the inquiry, according to Dr. Durbin, would not accept treatment because of religious scruples although he permitted excreta samples to be taken.

Dr. LeRoy advised that it was his understanding that Dr. Leon O. Jacobson, Division of Biological Sciences, University of Chicago, believed that CHI-III left the hospital against medical advice (AMA), which could be verified only on his medical record if his identity were known, as could the matter of his refusal to accept treatment because of religious scruples. Dr. Jacobson was out of the country at the time of the inquiry and thus not available for interview.

As stated hereinbefore, the review of the records by Mr. Olson's staff focused on Hodgkin's disease patients with an average age of 26 years, because the

best information available indicated that CHI-III was an adult male between "16-40 years of age." In order to test the validity of the review by Mr. Olson's staff, and to expand that review, the writer obtained a card file from Dr. Phillip W. Graff, Pathologist, Surgical and Pathology, Clinics and Hospitals, University of Chicago, who stated that, within the 98 percent accuracy estimated by Dr. LeRoy, the file represented all Hodgkin's disease patients who had been in the Clinics and Hospitals, and was directly correlated with the Registry of Neoplastic Diseases, previously mentioned. It was noted that, by count, this card file included 504 individual patient cards, which contained information in varying degrees, such as patient number, name, date of death, date of autopsy, if any, whether patient was still living, date of last visit, etc.

Prior to reviewing the card file, it was determined from the record that from January 28, 1945, to January 1, 1947, the patient numbers assigned for all medical purposes ranged from 349,998 to 398,000. As the cards were reviewed, female patients were eliminated, as were those whose cards showed other data such as age, recent examinations or evidence of continuing treatment. In addition, only those patients with numbers falling within the aforementioned range were recorded for further followup, excluding those already identified by Mr. Olson's staff and previously eliminated. Mr. Olson commented that one fallacy in using the patient number approach was that if the subject of the inquiry had been born at the hospital, he would carry a patient number well outside the range established, assuming that his name was recorded in the file in the first place. He stated, however, that this approach was the most logical one under the circumstances.

The review of this card record resulted in 14 possibilities which were listed by name and patient number, and with the assistance of Mrs. Lillian J. Kane, Administrative Assistant, Office of Medical Legal Affairs, University of Chicago, were traced into various hospital records and eliminated from further consideration for the following reasons:

Basis for Elimination	<u>No.</u>
Admission subsequent to known injection date	8
Age considerations (7 and 65 years)	2
Received Nitrogen Mustard treatment	2
Date of known death and autopsy	1
Not a patient at time of known injection	<u>1</u>
	<u>14</u>

Mrs. Kane advised that prior to assuming her present position, she worked in the hospital records unit for 17 years; that she is positive that daily census records would have been maintained during the period that the subject was an in-house patient; and that because of the age of these records, they would be difficult to locate assuming that they were still in existence. Efforts to locate these records while the writer was onsite in Chicago,

September 25-27, 1974, proved futile. Mrs. Kane agreed to continue the search and subsequently advised the writer on November 19, 1974, that her efforts failed to locate the records, and that she has concluded that because of their age and lack of storage space, they have been destroyed.

It will be recalled that Reference 48, previously quoted, contained the name of one E. R. Russell as a co-author of certain publications utilized by Dr. Durbin in her article pertaining to participants in the clinical testing program.

Mr. Edwin R. Russell, formerly an Assistant, Metallurgical Laboratory, University of Chicago, and a Group Leader and Associate Chemist, Argonne National Laboratory, presently a Staff Chemist, E. I. DuPont deNemours Company, Savannah River Laboratory, Aiken, South Carolina, was contacted telephonically. He stated that he was aware that there were three patients who were in the clinical testing program at the University of Chicago; that, after examining a personal notebook in his possession, he had recorded the last names of two patients known as CHI-I and CHI-II, already known to the writer; that he did not know the name of the third participant who was a young adult male who had Hodgkin's disease; that he did recall that no autopsy was permitted due to the patient's religious scruples; and that he could not recall the specific description or age of this patient, whether he had succumbed in the hospital, or whether he had left the hospital against medical advice. He added that he did find one entry in his notebook that referred to picking up samples from a Mr. Hempleman (phonetic) but he could not recall any other specifics and, consequently, could not say whether or not this name was pertinent.

Mrs. Kane was recontacted telephonically and requested to scan the hospital records for a patient by the name of Hempleman, Hempelmann, or any similar name. She subsequently advised that her search of the records disclosed no patient of such name, but that other records did identify a Dr. Louis Henry Hempelmann, Jr., who at one time had been associated with the Los Alamos Scientific Laboratory and more recently with the Department of Radiology at the University of Rochester School of Medicine and Dentistry.

Mr. Russell advised that the information which he had recorded in his personal notebook was quite limited because of the secrecy regarding the clinical testing program at the time it was conceived and executed. He stated, however, that he recalls that during the time the program was in progress, a number of "gray, numbered, research notebooks" were kept by various individuals, including himself; that these notebooks were all notarized by the then Director of the Library at the Argonne National Laboratory, a female; and that these notebooks would not have been destroyed and should be located in the archives at the Laboratory. He added that this data should contain detailed information regarding all subjects in the program, probably including their identification.

The writer telephonically contacted Mr. E. Newman Pettitt, Technical Publications and Classification, Library Services, Argonne National Laboratory, and

0002991

requested his assistance in locating the research notebooks referred to by Mr. Russell. Mr. Pettitt was familiar with the subject of the inquiry, stating that he had searched out other information during an earlier phase of the overall inquiry, but that he did not recall searching for or seeing any research notebooks.

After considerable searching, which was hampered by the fact that the storage facility had been moved and that sometimes research notebooks were logged under various names, Mr. Pettitt advised that he had been able to locate several notebooks, none of which made reference to specific names of individuals involved in the clinical testing program. He advised, however, that he is certain that there are others in existence and that he will continue to search for them and advise the writer in the event they are located so that they may be reviewed by a representative of the Division of Inspection.

In view of the foregoing, I recommend that no further action be taken regarding this matter until such time as additional information may be forthcoming as a result of Mr. Pettitt's continuing efforts. Should pertinent leads evolve from his efforts, I would recommend that the case be reopened.

Giles L. Lofton
Deputy Assistant Director
Division of Inspection

Period of Inquiry:
September 25-27, 1974

Distribution:
2 - Division of Biomedical and Environmental Research