

OFFICE MEMORANDUM

TO :
FROM :
SUBJECT:
SYMBOL :

DATE: 401056

patients without charge.

We would like to obtain your permission at this time to put radioactive chromium on the red cells of the following persons: [REDACTED], [REDACTED], [REDACTED] (Health Division); [REDACTED] (summer employee); [REDACTED] (summer consultant); and [REDACTED] (Los Alamos Cancer Clinic).

We have plans to label the cells of two men with chronic lymphatic leukemia, 1 man with acute lymphatic leukemia, 1 man with aplastic anemia probably secondary to carcinoma of the stomach, 1 man with bleeding duodenal ulcers, 1 woman with polycythemia vera, and 1 man with infectious mononucleosis.

In addition to your approval of this study and of the labeling of the normal persons mentioned above, it is planned to secure from each person, whether or not he is a hospital patient, a personally signed permission (properly witnessed) to cover me as a practicing physician.

Handbook 52 gives the maximum permissible amount of Cr⁵¹ in the total body as 390 microcuries. This amount is computed on the basis of oral ingestion and the kidney is assumed to be the critical organ. The present experiment involves a rather different type of exposure, since the activity is administered as tagged blood cells. The life of Cr⁵¹ in the body is reported to be short after it is separated from the cell. The critical organ in this case is therefore whole body, and it is necessary to recompute the dosimetry on this basis.

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