

MEMORANDUM

October 27, 1947

TO: Chairman, Deans' Committee

SUBJ: The Radioisotope Program of the Veterans Administration

The objective of the radioisotope program of the Veterans Administration is twofold, (1) to promote the safe and intelligent use of radioisotopes in the medical care and treatment of veterans within hospitals of the Veterans Administration and (2) to promote the use of radioisotopes in medical research within hospitals of the Veterans Administration.

On the Central Office level the radioisotope program will be administered and coordinated through the Radioisotope Section of which I will serve as Chief. In this capacity it will be my responsibility to carry out the desires of the Chief Medical Director and the recommendations of the Central Advisory Committee on Radioisotopes. The Chief of the Radioisotope Section will prepare for the Chief Medical Director for his action recommendations as to (a) the authorization for the use of radioisotopes within individual hospitals of the Veterans Administration, (b) the control of "pubinfo" releases and approval of articles for publication, (c) the promulgation of safety requirements to be observed, and (d) the approval of appointment of professional personnel engaged in radioisotope activities. The Chief of the Radioisotope Section will be responsible for forwarding to the Deans' Committee and Chairman of the Radioisotope Committee various recommendations regarding (a) personnel, (b) physical facilities, (c) scientific equipment and supplies, (d) periodic inspections and (e) certain requirements regarding investigations and work reports done in the Radioisotope Unit of the hospital.

The Central Advisory Committee on Radioisotopes has been appointed to make specific recommendations as to safety requirements and to prepare recommendations as to general policy and planning on the Central Office level. The members of this committee are Dr. Hugh Morgan, Dr. Shields Warren, Dr. Stafford Warren, Dr. Perrin Long and Dr. Hymer Friedell.

To serve as Special Consultant on Radioisotopes as representatives of the Central Office, three field advisors have been appointed. They will be available for occasional inspection of facilities and activities within the areas of their cognizance, and for occasional consultation to personnel representing the Central Office and to personnel representing the Radioisotope Committee or Radioisotope Units in Veterans Administration hospitals within the areas of their cognizance. They will also serve as special advisors to the Chief of the Radioisotope Section. To serve in this capacity there will be Dr. Shields Warren in the Eastern states, Dr. Hymer Friedell in the Central states, and Dr. Stafford Warren in the Western states.

For the development, supervision and administration of the radioisotope program on the local level, it is recommended that the Deans' Committee appoint a subcommittee to be known as the Radioisotope Committee. It was the belief of the Central Advisory Committee that it is desirable to have

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someone, preferably an internist, who has a broad medical interest to serve as Chairman of the Radioisotope Committee and that he be the one primarily responsible for coordinating the interest of those other members of the Radioisotope Committee who would represent specialist fields. The Central Advisory Committee felt that the Deans' Committee after reviewing the radioisotope problem in its broad aspects might desire to include on the Radioisotope Committee (a) an internist particularly interested in hematology and metabolism, (b) a surgeon not primarily interested in oncology and (c) a radiologist particularly interested in radiobiology and familiar with radioisotopes. To what extent it would be desirable to include as members of the Radioisotope Committee those having a highly specialized interest in certain aspects of radiotherapy, of oncology, of medical biology, of biochemistry and of radiation physics would be a matter which would depend very largely on the local situation and the desires of the Deans' Committee. It was felt that the membership of the Radioisotope Committee should not be so large as to interfere with the proper conduct of its mission. To this end it was believed that it might be possible to obtain the services of special advisers in certain highly technical fields to serve the Radioisotope Committee in the role of consultants rather than as members of the Radioisotope Committee. On recommendation of the Deans' Committee to the Chief Medical Director, such appointments may be made. Such advisory assistance may be desired by the Radioisotope Committee in matters involving particularly specialized or highly technical aspects of the use of radioisotopes. In this category would probably come the services of those individuals who possess particular qualifications and skills in one or more of the following (a) radiation physics including the detailed knowledge of instruments for, and techniques of, detection and measurements of radioactivity, (b) radiochemistry including the processing of tracer compounds, (c) biochemical problems related to the radioisotope program, particularly those concerning the synthesis of radioactively "tagged" compounds, (d) radiobiology, (e) "health physics" including the safety of personnel, and (f) certain aspects of the human application of radioisotopes requiring a particularly careful technical consideration. Such a wide variety of professional interests will be represented and such a diversity of highly specialized skills will be required, that the success of the radioisotope program will depend very largely upon the extent to which an effective team of qualified workers can be developed and their work conducted in such a manner as to utilize in appropriate balance the contributions of the various skills represented in the membership of the team. It was felt that the techniques of tracer studies and of radioisotope therapy should be a tool of the broad medical scheme and interest rather than that of a specialized field of radiology, oncology or biochemistry.

Recommendations of the Deans' Committee will be forwarded via Hospital Manager to Chief Medical Director, an information copy being forwarded at the same time to the appropriate Branch Medical Director.

It would be the responsibility of the Radioisotope Committee to develop, supervise and administer the local radioisotope program in such a manner as

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to carry out the objectives of the radioisotope program to the satisfaction of the Deans' Committee.

Within the Veterans Administration hospital on the working level would be established a Radioisotope Unit under the administrative responsibility and direction of a Director. The Director of the Radioisotope Unit, and personnel of the unit would be selected by the Radioisotope Committee and forwarded to the Chief Medical Director for approval. If approved, authorization for appointment will be dispatched from Director, Medical Personnel, Central Office. The Director would be responsible to the Radioisotope Committee for the actual conduct of the program within the hospital. His specific responsibility and those of the program within the hospital. His specific responsibility and those of the Radioisotope Committee have been outlined in the enclosed recommendations. Whereas, it was believed that consultants to the Radioisotope Committee should be those able to qualify for appointments as "consultants" with the remuneration of \$50.00 per day, it was believed that for the Radioisotope Unit it would be possible to employ as "attendings" suitable specialists and technical advisors to serve the Radioisotope Unit in the special fields which may be required for the work of that unit.

To finance the activities of the radioisotope unit \$25,000 has been made available from the Central Office, Research and Education Service for fiscal year 1948. It was thought that this might be divided in approximately the following manner: \$10,000 personnel; \$10,000 purchase of scientific equipment; \$5,000 supplies.

In an enclosure there is a suggested breakdown of personnel and appointments which might assist in planning the activities of the Radioisotope Unit.

The extent to which part time or full time personnel will be employed will depend upon the local situation and the recommendations made by the Radioisotope Committee as they study the local problem.

It is the desire of the Central Office to support the suggestions of the Deans' Committee and the Radioisotope Committee as directly and as effectively as possible. It is also desired that the Deans' Committee and the Radioisotope Committee feel that the radioisotope program is their activity and that the Central Office desires to make it one which will be conducted to the mutual interest and advantage of all concerned. It is the feeling within the Central Office that such a program could not be developed without the active participation of the Deans' Committee and its representatives on the Radioisotope Committee. To that end restrictions from Central Office will be reduced just as much as possible and will consist mainly of such as may involve safety, public relations including "pubinfo" releases for scientific publication and such fiscal matters as are necessary.

It is the feeling of the Central Advisory Committee on Radioisotopes and of the Chief Medical Director that a sensible conservative position in regard to

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the use of radioisotopes must be established and maintained. Among both professional and lay individuals there has been a tendency to believe that radioisotopes may offer, in the immediate future, much more in the way of therapeutic relief than the facts actually justify. It is the belief of the Central Advisory Committee that the use of radioisotopes may become a very valuable tool in the broad field of medicine particularly as they may be employed in the development of newer diagnostic techniques and in various forms of investigation leading to a better understanding of the problems encountered in physiology, pathology and perhaps immunology. A great deal will be accomplished during the first year that the unit is in operation, if a smooth working organization and effective teamwork in the various associated special fields is developed.

For purpose of planning it is advantageous to consider three magnitudes of potential radioactive hazard. Accordingly the terms microcurie, millicurie and multicurie laboratories may be considered.

On the "microcurie" level would be the laboratory in which they would work with radioactive materials of such a nature there could be little if any hazard to personnel. In such laboratories, however, it is very necessary that radioactive contamination be avoided due to the fact that important investigative results may be jeopardized through careless handling of the radioisotopes or the unavoidable accidents which may occur in such laboratories. Such accidents would be in the nature of contaminations which would so distort background counts as to render difficult the interpretation of the scientific work being done but which would not jeopardize personnel.

On the "millicurie" level would be the laboratory in which minor hazards to personnel might be developed although they would probably seldom be of serious moment except perhaps as might occur in the improper administration of radioisotopes in therapy or in experimental work on human beings.

During the current fiscal year it is unlikely that it will be desirable to conduct work at levels other than the "microcurie" and "millicurie" laboratory levels.

In the "multicurie" level various hazards to personnel must be considered as always potentially present. Such laboratories are often referred to as "hot laboratories" and there may be present potentially at least a most serious type of radioactive hazard to personnel. Such laboratories would be concerned with the materials possessing a high order of radioactivity or radioactive hazard.

Until information currently being assembled with regard to the hazard arising from Carbon 14 is more complete, it would seem unwise to attempt use of the radioisotope in most laboratories of the Veterans Administration.

In general the two isotopes which seem most suitable for use within the Veterans Administration appear to be Phosphorus 32 and Iodine 131. Perhaps

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it may be possible in the relatively near future to approve certain hospitals for the use of radioiron and radiosodium.

Although there has been more delay than might have seemed desirable in the formal establishment of the radioisotope program and the radioisotope units, it has been necessary to set up certain administrative principles and practices which must be clearly defined if the radioisotope program, once under way, is to proceed with a minimum of confusion and delay. In this connection it is desirable to point out that the radioisotope program stemming from Central Office is separate from the general medical research program as far as administrative procedures are concerned. Funds have been separately provided for the radioisotope program. Within an individual hospital the radioisotope program will for the present not come within the province of the Committee of the Medical Research. All radioisotope activities within the Veterans Administration hospital will come under the jurisdiction of the Radioisotope Committee whether employed in therapy, diagnosis or research. The Radioisotope program will involve an interest on the part of Professional Services and it will be desirable to coordinate and integrate these interests in line with the responsibility of the Radioisotope Committee and the Radioisotope Unit. This is necessitated by the peculiar characteristics of this new form of medical tool and by the unique problems associated with the use of radioisotopes such as matters of safety and of public relations. These are not yet on as firm a foundation as are those involving the more conventional therapeutic and research tools. It is anticipated that eventually when a more stabilized situation occurs that it may be possible to incorporate the radioisotope program directly under the general medical research program.

As Central Office will provide the funds and full time and part time personnel, the radioisotope program will not be affected by local budget allowances or personnel ceilings.

I would appreciate greatly having the names of the members of the Radioisotope Committee and of the Director of the Radioisotope Unit as soon as conveniently possible after their selection.

I have been clumsy in presenting this protracted summary to you but I have wanted to be helpful by anticipating as many as possible of the questions which might arise in your mind.

At any time I may be of assistance I hope you will call upon me. I will always be ready to assist the Chairman of the Radioisotope Committee and the Director of the Radioisotope Unit in any way that I possibly can. I want to be considered in the light of serving them in the furtherance of their activity and interest. I shall at this end do my best from the administrative angle to make it easier for them to carry out their work there.

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