

## *President's Letter*

The patterns and mechanisms of development of Nuclear Medicine is of vital concern to all of us. There is a great deal of experience residing in individual circumstances which can be of profit.

At my request, Dr. Alys H. Lipscomb, Associate Clinical Professor of Medicine and Radiology of the University of Tennessee College of Medicine, Memphis, Tennessee, has summarized her experiences and conclusions. I believe that these experiences with a common problem and the derived conclusions will contribute some clarity to other approaches to the problem.

### Let's Plan for Nuclear Medicine

Alys Lipscomb

*Memphis*

There is a widespread mushrooming of interest, scope and numerical applications of radioisotopes to medical diagnosis and therapy. No specialty is immune to inroads of nuclear medicine. Recognizing that, when there is relegation of an area of interest like radioactive materials to a secondary position, either administratively or departmentally, a stepchild variety of product may result, it is therefore of prime importance to decide in prospect who will be in command of and responsible for the activity, and where in the table of organization of a medical school and hospital radioisotope usage will be placed properly.

Perhaps, theoretically, there should be an autonomous department of Nuclear Medicine. If a department is established, it is traditional to have a specialist as a product, as the surgeon, internist, radiologist represent graduate training in those areas. It will require quite a versatile individual to excel in all the capabilities necessary to make a nuclear medical specialist a reality, since proficiency in nuclear physics, radiochemistry, and radiobiology is needed to make practical application to clinical medicine, urology, endocrinology, gastroenterology, hematology, and neurology. Production of a specialist in nuclear medicine is difficult today because there are few organized nuclear medicine programs wherein interested individuals can be trained. This situation will undoubtedly improve as we move ahead.

Similarly, it is difficult to find a single individual to direct the complicated activities of the widespread applications. Approaching qualification is the radiophysicist who adds isotopes to his ken or the internist-hematologist-endocrinologist who embraces nuclear medicine. Cooperative administration by a nuclear radiophysicist, radiologist and internist with capabilities in hematology and endocrinology (this is the makeup, of course, of an ideal "radio-

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isotope committee" as recommended by AEC) is more feasible. Probably best results in optimal teaching of medical students, house staff and at the post graduate level, as well as service to patients, would accrue from such triple authority and divided responsibility.

A separate Department of Nuclear Medicine is not obligatory to allow use of such a cooperative administrative setup. Actually, in the Southeast, most medical school radio-isotope units are located within the framework of Radiology Departments by a ratio of about five to one. This placement undoubtedly obtains because radiology is the only specialty board which requires specific training and gives separate examination and certification in Nuclear Medicine. Some institutions, including the University of Tennessee College of Medicine, have established a Section of Nuclear Medicine within the Department of Radiology with equal status to Sections of Diagnostic and Therapeutic Radiology. The Tennessee approach is reasonable and new here. Administration is primarily the responsibility of an internist oriented hematologically and endocrinologically with the guiding hand and knowledge of an expert radiophysicist. Also available and helpful in the program to a less active extent is the Professor of Radiology. Eventual evaluation of this arrangement remains for the future.

Other arrangements are also in operation elsewhere. Some institutions modify the isotope program to allow the Radiologists to perform thyroidal uptake studies and the scanning procedures of what might be designated as "clean" work. The clinical laboratory under this scheme is allowed the privilege of urine, stool and hematologic isotopic techniques or those involving pipetting. Such a plan decentralizes the work moderately, and might be considered by some plausible for a private hospital. It is considered less than desirable for a medical school and, by many, totally unworkable even in private hospitals.

Still another approach to usage of radioisotopes allows each department of the medical school to control and implement, within the confines of that department, the nuclear medical procedures which pertain: for example, neurology or neurosurgery—brain scans; urology or medicine—renal scans, renograms; hematology—Schilling,  $^{59}\text{Fe}$ ,  $^{51}\text{Cr}$ ; endocrinology—thyroid studies, parathyroid studies; gastroenterology—liver and pancreatic scans; cardiology—cardiac outputs, cardiac scans, etc. Such complete decentralization is impractical, uneconomical of space, technicians and equipment and involves smearing of isotopes in many areas and should be condemned. Also, it is unlikely that these separate departments would desire to assume responsibility for therapeutic applications of radioisotopes.

It is suggested that medical institutions which are not committed as yet to placement of nuclear medicine geographically, administratively and philosophically should consider well and avoid hasty decisions. Successful use of radioactive materials depends upon knowledge, enthusiasm and authority of those charged with responsibility for the program. Moreover, housing facilities, equipment, technical personnel and financial support are obvious requirements.

It is certain that there is no fixed formula providing solution to these problems. The only solution to be derived will come with continued critical analysis.

John U. Hidalgo  
President