aamc association of american medical colleges

MEETING SCHEDULE
COUNCIL OF ACADEMIC SOCIETIES
ADMINISTRATIVE BOARD

June 25, 1980

4:30 p.m.	Business Meeting	Jackson Room
6:00 p.m.	Joint Administrative Boards Presentation by Dr. Seymour Perry, Director, National Center for Health Care Technology	Military Room
7:00	Reception and Dinner	Hemisphere Room

June 26, 1980

9:00	Business Meeting (Coffee and Danish)	Jackson Room
12:30 p.m.	Joint CAS/COD/COTH/OSR Administrative Boards Luncheon	Map Room
1:30 p.m.	Adjourn	

Suite 200/One Dupont Circle, N.W./Washington, D.C. 20036/(202) 828-0400

AGENDA
COUNCIL OF ACADEMIC SOCIETIES
ADMINISTRATIVE BOARD

June 25 - 26, 1980

MINUTES
COUNCIL OF ACADEMIC SOCIETIES
ADMINISTRATIVE BOARD

March 19-20, 1980

Washington Hilton Hotel
Washington, D.C.

PRESENT:

Board Members

Carmine D. Clemente
Chairman (Presiding)
F. Marian Bishop
David M. Brown
Daniel X. Freedman
Lowell M. Greenbaum
Robert L. Hill
T. R. Johns
Joseph E. Johnson
Thomas K. Oliver
James B. Preston
Virginia V. Weldon
Frank C. Wilson

Staff

James Bentley*
Lynn Gumm
Thomas Kennedy*
Mary Littlemeyer*
Rebecca Meadows
Thomas Morgan
Diane Plumb
Dario Prieto*
John Sherman*
August Swanson

GUESTS: Anna C. Epps
Richard S. Wilbur

The CAS Administrative Board Business Meeting convened on March 19, 1980 at 5:00 p.m. and adjourned at 7:30 p.m. A social hour was followed by dinner at 8:30 p.m. The meeting reconvened at 9:00 a.m. on March 20, 1980. Following the usual custom, the CAS Administrative Board joined the other AAMC Boards for a joint luncheon meeting at 12:30 p.m.

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*present for part of the meeting

I. Adoption of Minutes

The minutes of the January 23-24, 1980 CAS Administrative Board Meeting were approved without change.

II. ACTION ITEMS - Executive Council

A. Proposed Plan for the Implementation of the Goals and Recommendations of the Report of the AAMC Task Force on Minority Opportunities in Medicine

Dr. Anna C. Epps, National Chairperson of the Group on Student Affairs Minority Affairs Section Coordinating Committee, was present to provide information regarding the Committee's Proposed Plan for the Implementation of the Goals and Recommendations of the Report of the AAMC 1978 Task Force on Minority Student Opportunities in Medicine. Dr. Epps outlined the plan's suggested strategies and recommendations for achieving the goal of equal participation of racial minority groups in medical education. The plan is divided into four categories: Prematriculation, which deals with methods of increasing the racial minority applicant pool and improvement of the admissions process with respect to minority applicants; Matriculation, which includes recommendations aimed at improving the retention and normal progression of minority students and for increasing the availability of financial assistance to minorities; Graduate Medical Education, which suggests a more affirmative approach to recruiting minority students for residency positions; and Faculty Development, which deals with strategies for increasing the percentage of medical faculty positions held by racial minority groups.

The Board discussed the proposed plan and concern was expressed about any possible efforts to establish a mechanism outside the aegis of the NRMP for the recruitment of minority students for residency positions. However, Dr. Epps assured the Board that this was not meant to be a stated or implied recommendation of the plan.

ACTION: The CAS Administrative Board approved the Proposed Plan for the Implementation of the Goals and Recommendations of the Report of the AAMC Task Force on Minority Student Opportunities in Medicine.

III. ACTION ITEMS - CAS Board

A. Membership Application

At the January Administrative Board Meeting, the application of the American Association for the Surgery of Trauma had been assigned to Drs. Wilson and Johns for review. They concurred in their support for this society's membership in CAS.

ACTION: The CAS Administrative Board approved the application of the American Association for the Surgery of Trauma for membership in CAS.

B. CAS Nominating Committee

Dr. Clemente reported that he had requested the following individuals to serve on the 1980 CAS Nominating Committee:

Clinical Science:	Thomas K. Oliver, Jr., M.D. Daniel X. Freedman, M.D. Milton Edgerton, M.D.
Basic Science:	George Aagaard, M.D. Mary Ellen Jones, Ph.D. Solomon Snyder, M.D.

ACTION: The CAS Administrative Board endorsed the proposed 1980 Nominating Committee as listed above.

C. Stabilization of Research Grant Support

The Board discussed various methods of assuring stability for research grant support. More effective use of industrial resources and reduction of indirect costs through elimination of cumbersome federal regulations were discussed, and it was the sense of the Board that these areas merited further examination as possible ways of assuring adequate funding for research. The Board also discussed the concept which the Administration has espoused of providing annual funding for approximately 5,000 ROIs. There was a lengthy discussion of this proposal in which concern was expressed about the rigidity of the 5,000 figure, the potential for this figure becoming a ceiling rather than a minimum base, and the disconcerting absence of any consideration of training grants in this effort to stabilize the research budget. Dr. Greenbaum reported that this issue had been discussed at length the previous day at the Interim Meeting discussion group on efforts to assure adequate research support. He stated that in the course of the group's discussion, it was suggested that rather than a commitment to a specific number of grants, it might be more advisable to index the annual expenditure for research to the total federal health budget, thereby making the research budget a specific percentage of the total health dollar. The Board discussed this idea and agreed that the indexing mechanism was a more appropriate means of stabilizing research support than the annual funding of a fixed number of grants.

ACTION: As a result of the discussion of the CAS Administrative Board of methods to stabilize research grant support, the following resolution was developed and unanimously adopted:

> Although the CAS recognizes and supports the importance of investigator-initiated awards and, therefore, acknowledges the concept of stabilizing these awards, it does not believe that such stabilization should be accomplished at the expense of other NIH programs such as research training and the intramural research program. With specific regard to research training, the CAS urges the Congress to support an appropriation level for training

which is adequate to fund the same number of trainees (10,175) as were funded by the FY 1980 appropriation in order to maintain stability in the nation's research training effort. It should be emphasized that the funding of 10,175 trainees is still well below the 10,900 trainees recommended by the National Research Council of the National Academy of Sciences.

IV. DISCUSSION ITEMS - Executive Council

A. The LCGME - Its Development and Current Status

Dr. Swanson briefly reviewed the status of the LCGME in view of efforts on the part of the American College of Surgeons and others to propose methods to improve the accreditation of graduate medical education programs. Dr. Richard S. Wilbur, Executive Vice-President of the Council of Medical Specialty Societies, was present and informed the Board that the Graduate Medical Education Committee of CMSS had recently met and developed a list of recommendations toward improving the accreditation process as well as relationships between specialty societies and their respective residency review committees. Dr. Wilbur briefly reviewed the recommendations which were for the most part consistent with the positions of the AAMC and the American College of Surgeons. He stated that a white paper incorporating the recommendations would be prepared and that he would report back on its progress at the next Board meeting.

B. The Health Research Act of 1980 (H.R. 7036)

Drs. Kennedy and Sherman of the AAMC Staff were present to provide background information on the Health Research Act of 1980 which had been introduced on February 13 by Representative Henry Waxman of California. The Board was concerned about a number of aspects of the bill, particularly proposals to establish limited authorities and expenditure ceilings for each Institute at NIH; to require peer review for all intramural research and thereby require increased amounts of paperwork from intramural grantees, similar to that currently imposed on extramural grantees; and to establish an identical pattern of review for research contracts and for research grants thereby making the accountability of research contracts more rigid than necessary. This bill came into being in part because of the necessity to renew authorities for the Cancer and Heart, Lung and Blood Institutes and the Board agreed that this overriding imperative must be accomplished and hopefully not obscured by opposition to other aspects of the bill.

The Board discussed the ramifications of the Waxman bill and agreed that the speed with which the bill has moved from its introduction, to hearings and mark-up all within a one month period is quite alarming. A letter expressing this concern to Mr. Waxman from Dr. Cooper on behalf of the AAMC and 38 other organizations was distributed. The Board strongly supported the AAMC strategy of encouraging Congress to consider the bill at a more leisurely pace and to renew the authorities for the Cancer and Heart Institutes separately.

C. Health Manpower Legislation

Dr. Thomas Kennedy was present for a discussion of the five health manpower proposals which had recently been introduced in the House and Senate. He described the different pieces of legislation as well thought-out for the most part but stated that each created a rigid framework which would inevitably impact on medical education. He stated that all of the bills placed a major emphasis on student assistance. He reviewed specific proposals of some of the bills with particular attention to those introduced by Senator Kennedy and Representative Waxman.

Dr. Oliver had served as a leader of the Health Manpower Discussion Group at the CAS Interim Meeting. He stated that the group had had a broad discussion of the topic and had been alarmed to learn of the rapidly increasing rate of medical student indebtedness. He stated that the group feared that students were more likely to enter the more lucrative specialties in order to pay back their overwhelming debts and that fewer and fewer students would be interested in entering academic medicine. As a result of this discussion, the group concluded that loan forgiveness provisions should be extended to individuals who choose to enter academic medicine, and the CAS Administrative Board was in agreement with this recommendation. In addition, the CAS Board stressed the importance of continuing to work for loan forgiveness provisions for economically-disadvantaged students.

The Board's further discussion of health manpower legislation developed into a wide-ranging discussion of issues including institutional support, specialty distribution, geographic distribution of physicians, and the viability of the Graduate Medical Education National Advisory Committee (GMENAC). The Board had a lengthy discussion of capitation and concluded that for many schools capitation is a small yet vitally essential source of flexible funding that could not be sacrificed for the sake of a desired autonomy from federal controls. Regarding GMENAC, the Board felt that it should be valued as a mechanism for the collection of data but not as a policy-making body.

D. State Legislative Initiatives Affecting Important AAMC Interests

The Board briefly discussed the issue of how the AAMC should respond to state legislative initiatives which may affect AAMC interests or activities. It was agreed that the activities in an individual state's legislature should not be allowed to control or inhibit AAMC national policy and that it should be able to move freely to secure its interests.

E. Study of the General Education of the Physician

Dr. Swanson informed the Board that at its January meeting the AAMC Executive Committee approved a plan for a proposed study of the general education of the physician. He stated that this would not

be a curriculum study but an effort to explore conceptually how the education of physicians could be improved. A panel will be appointed by the Executive Council and several Board members suggested that at least one student be asked to participate.

F. Hospital Costs: Increased Competition Versus Mandatory Controls

The CAS Board discussed the issues raised in the staff paper on competition vs. controls. It was agreed that competition and free-market forces will probably be increasingly viewed as a solution to rising health care costs. It was also agreed that increasing competition will have a tremendous impact on teaching hospitals and the types of patient care services and educational opportunities they can provide. Several Board members expressed concern about the trend toward pre-paid group practices such as HMOs and IPAs and the implications of this trend for the patient populations of academic medical centers. There was related concern expressed that if teaching hospitals become strictly tertiary in nature because of the efflux of primary and secondary patients to lower-cost non-teaching hospitals, the educational environment of the teaching hospital will suffer. The CAS Board agreed that AAMC must continue to examine these issues and should clearly define the unique requirements of teaching hospitals, vis-a-vis educational responsibilities and provision of indigent care.

V. DISCUSSION ITEMS - CAS Board

A. Critique of CAS Interim Meeting and Future Meeting Plans

The Board discussed the 1980 CAS Interim Meeting which had taken place on March 18 and 19. Members of the Board expressed the opinion that the meeting had been very successful, that the discussion group topics had been timely, and that the increased attendance was very encouraging. Dr. Clemente stated that it was his hope that there might be 100% representation of the 69 member CAS societies at future meetings, and, to this end, he proposed that a letter go out from him to the presidents of societies not represented at the Interim Meeting urging that they encourage their representatives to attend future meetings.

Drs. Hill and Brown had served as leaders in the discussion group on Essentials of Research Training Programs. They reported that their group had had a lively discussion in which it had been agreed that research training programs should not be subject to an accreditation process or forced to meet rigid standards. A substantial portion of the discussion had centered around how to improve the quality of research training programs and thereby attract more students to research. It had been agreed that one real problem is the absence of faculty role models who are actively doing research in the laboratory and, after some discussion of this issue, the Board agreed that it might be an interesting topic for a future CAS

meeting. Also, regarding future meeting plans, the Board decided that the discussion format which has been so successful should be continued and other possible topics were briefly discussed.

B. CAS Nominations for Distinguished Service Membership

The Board again discussed its six year moratorium on nominations to the category of Distinguished Service Membership of the AAMC. It was determined that a committee should be appointed to determine whether or not the moratorium should continue and if not, to draw up criteria for making nominations in the future. Dr. Clemente asked that Dr. Bishop serve as Chairperson of a committee composed of herself and Drs. Brown and Hill to study this question and report back to the Board in June with firm recommendations.

C. "Position Paper" on the Shortage of Academic Anesthesiologists

Dr. Oliver distributed copies of a position paper which he had received from Dr. William Hamilton regarding the shortage of academic anesthesiologists. At the January Board meeting, Dr. Oliver had informed the Board of Dr. Hamilton's concerns and his desire that these be communicated to other CAS societies. At that time, the Board determined that Dr. Oliver should write to Dr. Hamilton and request a formal position paper or statement of the problem. After reviewing the paper and the accompanying letter in which Dr. Hamilton states that it is a very rough draft, the Board decided that staff should offer to circulate a more refined document after it has been developed.

VI. Adjournment

The CAS Administrative Board adjourned at 12:30 p.m.

DISTINGUISHED SERVICE MEMBERSHIP CRITERIA

Background - At the March 19-20, 1980 Administrative Board Meeting, a committee was appointed to develop criteria for CAS nominations to Distinguished Service Membership. Dr. Bishop chaired the committee on which Drs. Brown and Hill also served. Below is the report of that Committee.

"These recommendations were developed with the idea that criteria in items 1-4 would be prerequisites for nomination and would require no Board time in considerations since they are easily verified. Item 5 would require Board consideration since this is the flexible area for CAS members at large and has no specific requirement time or service requirements.

It should be noted that Dr. David Brown still goes on record as saying that the guidelines are reasonable if one accepts the need for CAS Distinguished Service Members in the first place. He cannot see the merit of the time spent on this award however much it may be appreciated by the recipients.

Individual members from organizations and societies who are Members of the Council of Academic Societies shall be considered by the CAS Administrative Board for nomination for Distinguished Service Members under the following guidelines.

Individuals who have served

1. *as Chairman of the AAMC Assembly representing the Council of Academic Societies.*

2. *as Chairman of the CAS Administrative Board.*

3. *on the CAS Administrative Board two consecutive terms or six years.*

4. *their organization or society as an official representative for 8 consecutive years, with the organization being recorded as having a representative in attendance at meetings for a minimum of 75% during this time span.*

5. *on AAMC Task Forces, Committees, etc., in an especially meritorious fashion and have been nominated for CAS Distinguished Service Member by their CAS member organization or society."*

CAS DUES STRUCTURE

A letter has been received from the Association for the Behavioral Sciences and Medical Education (ABSAME) regarding the CAS dues structure. The letter expresses the belief that the membership category of 300-999 members is very large and can impose a hardship on societies whose membership fluctuates around the 300 mark. ABSAME suggests that the interval be broken into two subintervals.

The current dues structure is as follows:

No. of Members	FY 1981 Dues
- 300	$ 604
300 - 999	1,208
1,000 - 4,999	2,416
5,000 or above	3,624

The membership of CAS breaks down into these four categories as shown below:

LESS THAN 300 MEMBERS

Association of Anatomy Chairmen
Association of Med. School Departments of Biochemistry
Association of Med. School Microbiology Chairmen
Association for Med. School Pharmacology
Association of Chairmen of Depts. of Physiology
Association of Pathology Chairmen
Association of Professors of Dermatology
Association of Professors of Medicine
Association of Univ. Professors of Neurology
Association of Med. School Pediatric Dept. Chairmen
Association of Academic Physiatrists
American Association of Chairmen of Depts. of Psychiatry
Association for Academic Psychiatry
Association of Prof. of Gynecology and Obstetrics
Society of Surgical Chairmen
Assoc. of Univ. Professors of Ophthalmology
Association of Orthopaedic Chairmen
Assoc. of Academic Depts. of Otolaryngology
Society of University Otolaryngologists
American Association of Plastic Surgeons
Thoracic Surgery Directors Association
Association of University Anesthetists
Society of Academic Anesthesia Chairmen
Society of Teachers of Emergency Medicine
Society of Chairmen of Academic Radiology Depts.
Plastic Surgery Research Council
Association for the Behavioral Sciences and Medical Education

Total Societies - 27

300 - 999 MEMBERS

Society for Gynecologic Investigation	(325)
American Neurological Association	(390)
Society for Health and Human Values	(438)
Academy of Clin. Laboratory Physicians & Scientists	(440)
Association of Program Directors in Internal Med.	(500)
Society for Pediatric Research	(600)
American Pediatric Society	(744)
American Surgical Association	(750)
American Assoc. for the Study of Liver Diseases	(750)
American Association for Thoracic Surgery	(800)
Association of American Physicians	(850)
Society for Surgery of the Alimentary Tract	(882)

* Association of Teachers of Preventive Medicine
* Association for Academic Surgery
* Society of University Surgeons
* Society of University Urologists
* Society of Critical Care Medicine
* Association of University Radiologists
* Central Society for Clinical Research

Total Societies - 19

* Did not respond to recent questionnaire regarding current membership information

1,000 - 4,999 MEMBERS

American Association of Anatomists
American Society of Biological Chemists
American Soc. for Clin. Pharmacology & Therapeutics
Amer. Soc. for Pharmacology and Exper. Therapeutics
American Physiological Society
American Academy of Allergy
Endocrine Society
Society of Teachers of Family Medicine
Gastroenterological Association
American Society of Hematology
American Academy of Neurology
American Academy of Child Psychiatry
American Assoc. of Neurological Surgeons
Educ. Found. of the Amer. Soc. of Plastic and Reconstructive Surgeons
American Society for Clinical Investigation

Total Societies - 15

MORE THAN 5,000 MEMBERS

Society for Neuroscience
American Society of Clinical Pathologists
American College of Physicians
American College of Obstetricians and Gynecologists
American Academy of Ophthalmology
American Academy of Orthopaedic Surgeons
American Urological Association
American Federation for Clinical Research

Total Societies - 8

Question for consideration by the CAS Administrative Board:

Should the 300 - 999 membership category for CAS Societies be broken down into two categories?

DISPOSAL OF RADIOACTIVE WASTES FROM BIOMEDICAL INSTITUTIONS

The following position paper is self-explanatory. The effort which generated it, however, came from an increasing awareness in early 1980 that (1) the disposal sites were likely to close again, (2) the Federal agencies were unable to initiate a policy which would address and solve the problems of biomedical institutions in a timely fashion, and (3) the formation by President Carter of a new Radiation Policy Council seemed to augur well for the success of an effort initiated by the private sector. We were encouraged in this activity by Dr. Gilbert Omenn, late of the Office of Science and Technology Policy, Executive Office of the President.

The position paper is presented for the Administrative Board's information, discussion and comment.

RADIOACTIVE WASTES FROM BIOMEDICAL INSTITUTIONS

BACKGROUND

Among the most significant blessings of the peaceful atom are remarkable advances in biomedical research and the care of patients which have been made possible by the use of radionuclides. For example, biomedical researchers are now able to follow the most complex metabolic processes of the body by the use of very small or "tracer" amounts of isotopes; in medical diagnosis abnormal areas of the heart can be "lighted up" after heart attacks by the intravenous injection of technetium or thallium isotopes of high specific activiity but very short (hours) half-life; hormones can be detected in miniscule amounts by radio-immunoassay, thyroid and bone diseases can be detected; cancers can be treated more effectively by implantable radiation sources or by the cobalt source for high intensity, narrow beam irradiation——the list of "miraculous" benefits is very long and growing.

But, for the past two years, these benefits have been threatened by public conerns about the safety of radioactive wastes of all sorts. The risks of biomedical uses of radioactive materials are extraordinarily low but because the public is not well informed about such matters the biomedical uses of radioisotopes for research and patient care are now caught up in public debate about nuclear power and nuclear weapons.

One aspect of this debate has led to the closing of the disposal sites for low-level radioactive wastes. A lecture delivered at the 5th Congress of the International Radiation Protection Association, Jerusalem, in March 1980 stated, in part:

> *"The low-level radioactive waste burial grounds in the United States have been closed or have operated at reduced capacity for many months, much to the inconvenience of biomedical institutions that are prevented by federal and state*

regulations from disposing of such wastes by other means. Most of the radioactivity in the wastes produced by these institutions is due to two nuclides, tritium and carbon-14, which are largely contained in plastic vials used in liquid scintillation counters.

Tritium and ^{14}C are both produced naturally by cosmic-ray interactions with the atmosphere. Tritium is produced at an annual rate of 1.9 [million] curies (Ci), leading to a steady-state environmental inventory of 34 [million] Ci. Carbon-14 is produced at an annual rate of about 38,000 Ci, which because of its long life results in a global accumulation of 315 [million] Ci. Humans have always been exposed to the radiations from these nuclides, but they are both soft beta emitters and the annual dose we receive is only 0.001 mrem from ^{3}H and 0.7 mrem from ^{14}C. The combined dose from the huge accumulation of these nuclides is thus about 0.5 percent of the 130 mrem to which the average person is exposed from all natural sources. Tritium and ^{14}C were also dispersed into the environment when nuclear weapons were tested in the atmosphere; by 1972, an estimated 5.8 [million] Ci of ^{14}C and 4.5 [billion] Ci of ^{3}H were added to the atmosphere in this way.

Compared to these quantities, the amounts of ^{14}C and ^{3}H present in the wastes from clinics and laboratories are miniscule. An estimated 2,390 facilities in the United States used one or both of these nuclides in 1978 and shipped a total of 720 Ci of ^{3}H and 221 Ci of ^{14}C to waste burial grounds. (1) (Emphasis added.)"

In other words cosmic rays each year add more than 2,600 times more tritium (^{3}H) and more than 170 times more carbon-14 to the atmosphere than were present in wastes from all hospitals and research laboratories.

Prominent scientists have made similar public statements regarding the relatively low hazards of radioactive wastes generated from the Nation's hospitals, biomedical research laboratories and university non-biological research activities (2). Particularly important in this regard is the report "Institutional Radioactive Wastes---1977" prepared by the Radiation Safety Office of the University of Maryland at Baltimore for the Nuclear Regulatory Commission (NRC) in October, 1979 (3). This report identified three institutional "wastestreams": medical, bioresearch and non-bioresearch. A survey was conducted with the following results:

> *"A followup survey to the 1975 institutional radioactive waste study was conducted to obtain data for the calendar year 1977. The survey population of large medical and academic licensees shipped an estimated 7,771 m^3 of low level waste for burial in 1977. Approximately 7% of the waste volume was ascribed to purely medical sources, 79% to sources conducting biological research and 14% to other academic sources. The estimated total activity shipped by the population in 1977 was 1,688 Ci, of which 81% was ^3H. Approximately 540 Ci of ^3H was shipped as depleted tritium targets for neutron generators. Much of the rest was in the form of labeled compounds or labeling reagents used in biological research. The fastest growing waste form produced by the population is waste liquid scintillation vials which have undergone a 60% increase in volume since 1975. The waste volume produced by the population appears to be increasing linearly, at approximately the same rate as low level radioactive wastes in general." (3)*

A Working group was assembled under the auspices of the Association of American Medical Colleges (AAMC), the National Association of State Universities and Land Grant Colleges (NASULGC) and the Association of American Universities (AAU) to examine the situation and to propose

a solution to the problem of disposal of radioactive wastes now facing the hospitals and biomedical research institutions. The Working Group agreed that radioactive isotopes used in these institutions were generally at very low levels in both absolute and relative terms but that chemicals were also involved which posed, in some instances, a potentially greater waste hazard than the radionuclides themselves.

The Group accepted the terms relating to institutions and wastestreams as defined in the Maryland Report to the NRC (see Appendix A). The Group further noted that Department of Transportation (DOT) regulations (4) define "radioactive materials" as any substance containing more than 2.5 nanocuries (2.5×10^{-9} Ci) per gram.

The Working Group suggested that it is both convenient and sensible to divide radioactive nuclides used now and in the future in medical and bioresearch institutions into two groups:

A) Long-lived radionuclides--(i.e. half-lives longer than 3 years)---principally tritium (^{3}H) and carbon-14 (^{14}C), and

B) Short-lived radionuclides---(half-lives shorter than 3 years)---including chiefly ^{32}P, ^{57}Co, ^{67}Ga, ^{99M}Tc, ^{99}Mo, ^{111}In, ^{125}I, ^{131}I, ^{127}Xe, ^{133}Xe and ^{201}Th.

A third group of radionuclides also is found in hospitals and research institutions. These are the radiation generators and sources used principally for medical therapy. These sources generate high energy rays or particles but are usually re-cycled and do not form a significant institutional radiation waste problem. Some implantable "seeds" and source targets do become wastes each year but this a very small disposal problem.

The Working Group noted that present NRC regulations permit the disposal through sanitary sewers of water soluble radioactive materials which are not otherwise hazardous (5). Dilution and flushing down the drain is permitted so long as the concentration of radioactivity in the effluent does not exceed the amounts shown in Table 1, for example, for water soluble ^{3}H and ^{14}C compounds.

TABLE 1

NRC RADIATION PROTECTION STANDARDS
PERMISSIBLE SANITARY SEWER EFFLUENT LEVELS

Isotope	Concentration in Water above Natural Background Radioactivity in Ci per ml. for 40 hour week	168 hour week
Carbon-14 (^{14}C)	$2x10^{-8}$	$8x10^{-10}$
Tritium (^{3}H)	$1x10^{-7}$	$2x10^{-9}$

Similar amounts of radionuclides may be discharged by incineration into the air. The total amount of radioactivity which may be disposed of through sanitary sewers in one year, however, is limited to one Curie of total radioactivity per institution per year. This limitation was derived arbitarily on the grounds of previous experience. The total permitted to be disposed of nationally through sanitary sewers is determined by the number of institutions rather than by more rational safety considerations. The Working Group proposed that annual institutional limits be raised while adhering to present NRC standards for effluent levels. Experience shows (3) that even if annual institutional limits for sewer disposal were raised to 5 Curies of tritium and 1 Curie of carbon-14 the national burden would be unchanged and the average per institution would be unchanged. Human safety would be unaffected. What would be changed would be the necessity to ship large volumes long distances.

The Working Group noted that bioresearch wastes are usually products of "tracer" diagnostic or research studies and are thus diluted below permissible effluent levels during the course of the studies in a large proportion of situations. Thus, present NRC standards permit the disposition of much of the radioactive waste generated by the three biomedical wastestreams. It was recognized, however, that a few experimental situations, do not conform to this general pattern of dilution. In addition, many tritium or carbon-14 wastes are insoluble in water or are potentially chemically hazardous.

The Working Group also was informed of the proposal now being considered by the State of Washington (5) and some Federal agencies to set a "de minimus" level of radioactivity for these long-lived nuclides which would be both "safe" (within reasonable limits) and practical. Washington State House Bill No. 1963 contains the following definition:

> (9) *"Diminimus [sic] quantities of waste" means material which is considered waste and which contains radioactive material either intrinsically or as contamination, but at such levels that controlled and direct disposal into solid waste disposal sites does not constitute a public health hazard. Such waste shall be restricted to radioactive materials which: (a) Decay with a half life of less than three years; or (b) contain Hydrogen-3 or Carbon-14; and (c) have an average concentration per package unit that does not exceed 0.1 UCi/gram (micro-Curie) or 0.1 Ci/M^3 (Curie per cubic meter).*

Wastes containing radioactivity below this "de minimus" level would be permitted to be transported on state highways without special license, buried in ordinary landfill sites or stored in hazardous chemical areas without the necessity of obtaining special licenses for handling radioactivity. The proposed Washington

State standard is forty times present DOT levels on a unit package basis but is approximately equal to present NRC air and water effluent permissive standards. Adoption of such a law in all state jurisdictions and/or as a national standard would eliminate the necessity to transport almost all long-lived radionuclides to the Nevada, Washington and South Carolina waste disposal sites.

Wastes containing short-lived nuclides, tritium and carbon-14 in "de minimus" quantities can be disposed of safely in most cases by the same procedures that are applicable to non-radioactive wastes. The disposal of radioactive organic wastes and particularly of the increasing volume of scintillation vials containing toluene and other potentially hazardous chemicals is a special problem. As a recent Science editorial noted:

> *"Subject only to limitations imposed by characteristics other than their radioactivity, they can be flushed into sewers, put into trash bins, or incinerated. If the incinerator is well designed and operated, the risk to the nearby public will be of no consequence. If the ^{14}C and ^{3}H used in 1978-by all biomedical institutions in the United States were to be discharged by the incinerator stack of a single institution, the dose to the public would meet existing standards within a few tens of meters from the point of release to the atmosphere.*
>
> *The rules of the regulatory agencies permit application for a permit to incinerate, but the institutions have not taken advantage of this option because it would be difficult to obtain public acceptance of the practice. The institutions have instead opted to accept the burden of unnecessary record-keeping and inspection procedures, as well as the expense of shipping their wastes to distant burial grounds. These have now been denied to them for reasons related more to unrealistic fears than to justifiable concerns."*

An important consideration in dealing with the problem of radioactive waste disposal is the education of the public and of institutional officials: *"Radioactivity continues to present formidable barriers to its understanding of the subject. It is not unusual for discussions of waste disposal to involve units as small as picocuries (10^{-12} Ci) and as large as hundreds of megacuries. This is a range of 20 orders of magnitude, a spread of values totally without precedent insofar as the public and most scientists are concerned. Members of the public and their elected officials may not understand the enormous difference between picocuries and megacuries (1)."*

Another important consideration is the cost aspect. As fuel costs escalate institutional administrators are becoming increasingly aware of the cost of trucking wastes to distant landfill sites. In such circumstances incinerators become increasingly cost-effective.

Even if "de minimus" levels were adopted the problem of disposal of "short-lived" radionuclides would reamin. However, in the opinion of the Working Group, the problem could be very much ameliorated or eliminated by on-site storage in a secure, placarded area for the appropriate time sufficient to assure adequate decay. Such areas are generally available now in hospitals and research institutions and are usually 12x20 foot basement rooms with cinderblock walls. Contaminated materials should be monitored after storage and decayed materials below the "de minimus" level can be removed to routine waste disposal without danger. As was pointed out in the discussion of incineration above, education of public and institutional officials to the realistic hazards to be expected and the need for intelligent sorting of wastes are essential.

There is a special problem for hospital and research laboratories that require constant supplies of radioisotopes for diagnosis, therapy and research. A relatively small number of radiopharmaceutical and chemical manufacturers produce these radioisotopes. The manufacturing processes employed generate relatively large volumes of radioactive waste at much higher levels than those encountered at the biomedical research institutions and hospitals. These manufacturing wastes cannot be disposed of through sewers, by incineration or by local burial. Unlike nuclear power plants, biopharmaceutical manufacturers have only very limited storage areas for waste products, therefore, a small but steady stream of wastes must flow from the manufacturers to the three national low-level waste disposal sites if the essential diagnostic and therapeutic short-lived isotopes are to be available for patient care and, to a lesser extent, for research. The volume of waste generated from this manufacturing process is not large when viewed in the context of the capacity of the disposal sites but is overwhelming when compared to the manufacturing plant's storage capacity. The flow of radioisotopes needed for critical medical diagnosis, treatment and research could be shut down in a matter of weeks if the national disposal sites were closed.

RECOMMENDATIONS

Recommendation I: Hospitals, bioresearch and non-bioresearch institutions should take increasing responsibility for the intelligent, safe, local management of radioactive wastes by:

a) sorting short-lived from long-lived radionuclides,
b) storing and holding short-lived nuclides until these have decayed to levels which would permit their safe disposal (see below),
c) sorting long-lived isotopes by level of activity and by class as to aqueous or organic liquids or solids, and
d) exploring new methods of disposal appropriate to the institutional setting (e.g., incineration, local landfill).

Recommendation II: The Nuclear Regulatory Commission should continue its present policy with regard to air and aqueous disposal effluent levels for radionuclides but should permit each institution to dispose of a maximum of 5.0 Curie for ^{3}H and 1.0 Curie for ^{14}C compounds annually (over and above the present 1.0 Curie annual total for all other nuclides). All other Federal agencies should observe the NRC standards.

Recommendation III: A "de minimus" level of radioactive waste should be defined by the Nuclear Regulatory Commission (and observed by the Department of Transportation, the Environmental Protection Agency, other Federal agencies and states which have agreements with these agencies) so that wastes containing less than 0.1 micro Curie per gram or milliliter can be incinerated and/or transported and/or buried or stored locally without special regulation other than that required by the non-radioactive hazards of the waste.

Recommendation IV: Wastes containing "de minimus" levels of radionuclides may contain hazardous chemicals with toxic or carcinogenic potential and must be handled as such. Complete combustion is recommended as the most promising means of disposal of the scintillation fluid now being generated in increasing amounts.

Recommendation V: Wastes generated by biomedical isotope and radiopharmaceutical manufacturers should receive priority and preferential access to national waste disposal sites. (This recommendation is needed as explained in the text, because of the special problems encountered by manufacturers of critically needed diagnostic agents.)

REFERENCES

1. Eisenbud, M. Science, Vol. 207, No. 4437, March 21, 1980.

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GLOSSARY

BIORESEARCH WASTESTREAM - One of three wastestreams identified for analytical purposes in the 1977 institutional radioactive waste study. This wastestream is characterized by waste resulting from the non human use of radioactive materials in biochemical, biophysical, and physiological investigations using radiolabeled tracer techniques.

COLLEGE - The term used by the authors when referring to any four-year college or university.

ENTITY - The term used by the authors to distinguish reference to a hospital, medschool, or college from an institution, which may include more than one of these.

INSTITUTION - The term used by the authors referring to an administrative facility. An institution may be a single entity (e.g. a hospital) or it may include more than one entity (e.g. a hospital and a medical school).

MEDICAL WASTESTREAM - One of three wastestreams identified for analytical purposes in the 1977 institutional radioactive waste survey. This wastestream is characterized by waste produced from the use of radioactive materials for *in vivo* diagnosis, therapy, and research; and from *in vitro* use such as routine clinical assays.

NON BIORESEARCH WASTESTREAM - One of three wastestreams identified for analytical purposes in the 1977 institutional radioactive waste study. This wastestream is characterized by waste resulting from the use of radioactive materials in investigations of non life sciences such as physics, inorganic chemistry, materials analysis, geology, etc.; and including production of activation products with charged particle accelerators or research nuclear reactors.

RADWASTE - radioactive waste.

SEALED SOURCE - Radioactive materials permanently sealed, encapsulated or affixed (e.g. electroplated) in a nondispersible form.

WASTESTREAM - A general category of use of radioactive materials which results in continuous or regular discharge of radioactive materials into the environment.

PROPOSED COMMUNICATION NETWORK FOR CAS SOCIETIES

At the January and March CAS Administrative Board meetings, discussions took place regarding a request from Dr. William Hamilton to circulate to CAS societies information about the shortage of academic anesthesiologists. A letter had also been received from Dr. Layton McCurdy, President of the American Association of Chairmen of Departments of Psychiatry, detailing a shortage of psychiatric manpower and requesting that this problem be made known to other CAS societies. These two requests prompted the suggestion that a mechanism for communication among CAS societies be instituted. The Board discussed this idea in the context of devising a means for member societies to distribute to other societies position papers on issues of concern specifically to their own specialty but of possible interest to all members of the academic community.

Staff proposes that special stationery be designed for this purpose and made available to societies who wish to communicate with the CAS membership. It is also recommended that the cost of printing and mailing these papers be borne by the societies themselves. A possible heading for the stationery is as follows:

CAS COMMUNICATION

From time to time, member societies wish to communicate their views to other societies. This communication comes from

(society name)

Comments or suggestions about this communication should be directed to

(name and address of officer of the society)

COALITION FOR CLINICAL RESEARCH

There are an increasing number of issues arising from proposed regulation, legislation, or national policy that are of primary interest to the clinical research community. Examples of such issues in the recent past have been protection of human subjects regulations, the decline in clinical research manpower, and efforts to devise a national policy that would require institutions to provide compensation to individuals injured in the course of clinical research. Several CAS societies, which predominantly represent faculty involved in clinical research, have suggested that it may be useful and appropriate at this time to form a coalition for clinical research in order to discuss common interests and potentially to develop unified positions and strategies in response to clinical research problems and issues. Such a coalition would possibly be organized on an informal basis to function chiefly as a forum to exchange information and to facilitate discussion among members.

Questions posed for CAS Administrative Board discussion are:

- Would a coalition for clinical research be useful?
- Should AAMC facilitate its organization and operation by bringing together societies with a major clinical research component and by establishing a communications network for interested societies (such as monthly conference calls, special mailings, etc.)?

CAS FALL MEETING PLANS

The schedule for the CAS Fall meetings is as follows:

Sunday, October 26

1:30 - 3:30 p.m.	CAS Forum on Faculty
3:30 - 4:00 p.m.	Plenary Session
4:00 - 5:30 p.m.	Small Group Discussions
6:30 p.m.	Cocktails and Dinner

Monday, October 27

1:30 - 6:00 p.m.	Business Meeting and Speaker

Tuesday, October 28

7:00 - 8:30 a.m.	CAS President's Breakfast

The CAS Administrative Board will be asked to consider possible topics for the small group sessions on Sunday, October 26.

MINUTES
NOMINATING COMMITTEE
COUNCIL OF ACADEMIC SOCIETIES

May 28, 1980

PRESENT: Committee Members

Carmine D. Clemente, Ph.D., Chairman, Presiding
Milton T. Edgerton, M.D.
Daniel X. Freedman, M.D.
Mary Ellen Jones, Ph.D.
Thomas K. Oliver, Jr., M.D.

Staff

Lynn Gumm

ABSENT: George N. Aagaard, M.D.
Solomon Snyder, M.D.

The CAS Nominating Committee met by conference call on May 28, 1980 to select the slate of nominees to be presented at the fall CAS Business Meeting. Prior to the meeting, background materials had been circulated for review by the members.

As a result of the normal rotation of Board members, one clinical and two basic science positions will become vacant and the Chairman-Elect position is to be filled by a basic scientist. It was the consensus of the Committee that nominees for Chairman-Elect should be individuals currently or previously on the CAS Administrative Board as it was felt that experience in CAS/AAMC activities was a prerequisite for this position.

Potential nominees were chosen from among the official representatives of the 69 member societies. They were nominated on the basis of their stature and evidence of their interest in CAS activities. In addition, the Committee strived to maintain a broad representation of disciplines on the Board.

For Chairman-Elect of CAS, the Committee nominated David M. Brown at the University of Minnesota. Dr. Brown is a CAS representative from the Academy of Clinical Laboratory Physicians and Scientists and has served on the CAS Administrative Board since 1977.

In the event that Dr. Brown agrees to serve as Chairman-Elect and is approved by the Council at its business meeting in October, his position as a Board Member will become vacant and the Committee therefore had to nominate a basic scientist to complete the one year remaining in Dr. Brown's term. For each vacancy to be filled, one individual was designated with one alternate in the event that they are needed. The slate developed and the alternates considered are as follows:

BASIC SCIENCES

To complete the term of Dr. Brown:

William D. Sawyer, M.D., Association of Medical School Microbiology Chairmen, Indianapolis, Indiana

Alternate: Brian Curtis, Ph.D., American Physiological Society, Peoria, Illinois

Robert L. Hill, Ph.D., Association of Medical School Departments of Biochemistry, Durham, North Carolina

Alternate: Robert M. Bock, Ph.D., American Society of Biological Chemists, Madison, Wisconsin

William F. Ganong, M.D., Association of Chairmen of Departments of Physiology, San Francisco, California

Alternate: David H. Cohen, Ph.D., Society for Neuroscience, Stony Brook, New York

CLINICAL SCIENCES

John B. Lynch, M.D., Educational Foundation of the American Society of Plastic and Reconstructive Surgeons, Nashville, Tennessee

Alternate: Arthur J. Donovan, M.D., American Surgical Association, Los Angeles, California

Before the nominations can be made final, the willingness of the potential nominees to serve must be determined. It is also important to ensure that the academic society involved will agree that, for the duration of the individual's term of office on the CAS Board, he or she will continue to serve as an official representative of the society.

As its final order of business, the CAS Nominating Committee recommended that Dr. Thomas K. Oliver, Immediate Past-Chairman of the CAS, be nominated for Chairman-Elect of the Assembly.