A GUIDE FOR RESIDENTS IN RADIATION ONCOLOGY

The University of Pennsylvania Medical Center

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I. ABOUT THE UNIVERSITY OF PENNSYLVANIA MEDICAL CENTER

The University of Pennsylvania Medical School was founded in 1765 and is the nation's first school of medicine. The Hospital of the University of Pennsylvania (HUP), founded in 1874, is the first university based hospital. The current hospital facility consists of 701 patient beds located in the Dulles Building, Founders Pavilion, Gates Building, Maloney Building, Piersol Building, Ravdin Building, Silverstein Pavilion, White Building and the Rhoades Building. The University of Pennsylvania has become an internationally renowned medical center with established expertise in almost every medical specialty. A major emphasis has been on cancer research as well as the clinical care of the cancer patient. Facilities for hospitalized oncology patients include a 21 bed medical oncology in-patient unit, a 15 bed surgical oncology in-patient unit and a 25 bed gynecologic oncology unit.

The University of Pennsylvania Cancer Center was founded in 1973 and is one of about 20 comprehensive cancer centers in the United States as designated by the National Cancer Institute. The purpose of the cancer center is to conduct basic and clinical research, to provide undergraduate and postgraduate training, and to develop new and innovative treatment programs. The programs are interdisciplinary. There are currently 166 members of the cancer center with representatives from the School of Medicine, School of Veterinary Medicine, Dental Medicine, Engineering, Nursing, Wharton School, and faculty of the School Art and Sciences. There are two major divisions for the center's research (fundamental and clinical) as well as programs in epidemiology and psychosocial research.

The Veterans Administration (VA) Hospital of Philadelphia is a 440 bed general medical and surgical hospital located on the University of Pennsylvania Medical Center campus. Medical students, interns, and residents rotate through the VA Hospital. Certain subspecialties are the responsibility of the Allegheny Medical College of Pennsylvania however, Hematology, Oncology, Radiation Oncology, Surgery, and the surgical subspecialties are the responsibility of their parent departments at HUP.

The Children's Hospital of Philadelphia (CHOP), founded in 1855, is the oldest pediatric hospital in the United States. It currently is a 259 bed facility adjacent to the Hospital of the University of Pennsylvania. Radiation oncology is provided by HUP's Department of Radiation Oncology.

The Presbyterian Hospital was founded in 1871 and in 1965 became the Presbyterian-University of Pennsylvania Medical Center. It is a 324 bed facility. HUP's Department of Radiation Oncology provides radiation therapy for Presbyterian Hospital.

Pennsylvania Hospital is a 433 bed hospital about 2 miles from the University of Pennsylvania. It was established in 1751 and was the first hospital in the United States. It has a separate radiation oncology department, through which HUP residents rotate.

II. RADIATION ONCOLOGY HUP

General Information

The Department of Radiation Oncology at HUP is staffed by almost 20 PhDs and 30 MDs, with subdivisions in Medical Physics and Radiation Biology. The department at HUP has four linear accelerators, a fluorosopic simulator, a CT simulator, a high dose rate brachytherapy unit, a low dose rate brachytherapy program, an intravascular brachytherapy program, and intensity-modulated radiotherapy (IMRT) program. In addition to providing service at HUP, the Department currently provides treatment services at other facilities in the Delaware Valley. These facilities include the Philadelphia Veterans Administration Hospital, Presbyterian Hospital, Pennsylvania Hospital, Phoenixville Hospital, Chester County Hospital, Holy Redeemer Hospital and Mercer Medical Center. Radiotherapy services for Presbyterian Hospital are performed at HUP. Residents will routinely rotate at the VA, Pennsylvania and Mercer hospitals. The Veteran's Administration hospital has two megavoltage linear accelerators with multileaf collimation, and a prostate brachytherapy program. Pennsylvania Hospital has two megavoltage linacs, a CT simulator and a Gamma knife, and a low dose rate brachytherapy program.

Approximately 4000 new cancer patients per year are seen in consultation with over 10,000 follow-up visits per year at all of the facilities in which residents rotate. Approximately 125 brachytherapy procedures are performed per year at HUP, and this experience is supplemented by a rotation at Pennsylvania Hospital where an additional 30 procedures are performed per year, as well as some procedures at the VA and Mercer Medical Center.

Clinical Staff

The clinical staff for the department includes approximately 30 radiation oncologists. Their clinical practices are predominantly disease oriented with each staff physician responsible for patient care and clinical research activities for a particular set of disease sites. The department has established a national and international reputation in the treatment of pediatric, lung, CNS, breast,, genitourinary, gastrointestinal, lymphoid, and gynecologic malignancies , as well as radiation sensitizers, radioprotectors and photodynamic therapy.

Medical Physics Division

The medical physics division is composed of staff physicists, computer scientists, mechanical and electrical engineers, and dosimetrists. The staff focuses on four main areas of activity which include clinical service and consultation regarding treatment techniques and physical concepts; research involving new high energy machines, three dimensional treatment planning, IMRT, proton therapy and the application of sophisticated computer techniques to treatment planning, the training of future medical physicists, residents, physicians, and medical therapists, and the calibration, alignment, preventive maintenance, and servicing of equipment.

The dosimetry and physics divisions utilize the Eclipse treatment planning system for developing both 3D and IMRT treatment plans. Lantis is used as the record and verify system. The department's dosimetrists and physicists are responsible for generating a treatment plan for each patient, calculating off-axis doses for irregularly shaped fields, and doses for intracavitary or interstitial implant procedures. Physicists supervise IMRT plans which are mostly planned by the dosimetrists.

Computing and Network Division

The Division of Computing and Network operations is responsible for the medical informatics support of the department. This includes electronic collaboration, and support of research and clinical care. A 250 node Wide Area Network (WAN) composed of PC’s and other workstations spans the department. Support for email, word processing, database operations, electronic charting (ProCLIPS), Epic, Eclipse, Internet access, Lantis and communications is provided.

Radiation Safety Office

The University Radiation Safety Office maintains the radiation exposure history of every individual classified as a radiation worker and makes such records available to the worker on request. It notifies workers when permissible levels are being exceeded. It functions under the authority of the University of Health Physics officers.

Radiation Biology Division

The Division of Radiation Biology is staffed by approximately 10 PhD scientists conducting biologic and biochemical research in seven laboratories totaling approximately 13,000 square feet. The radiation equipment includes a superficial irradiator used exclusively for cell culture work and an orthovoltage unit which is used for both cell culture and animal tumor studies. A small animal facility is available.

Social Service

A radiation oncology dedicated social worker is available through the hospital to helps the patient and family recognize and articulate their questions, concerns, and fears regarding treatment and prognosis. The social worker acts as a liaison between the patient and family and various agencies within the community (i.e. nursing home, psychiatric facilities, home nurse services, counseling agencies), for financial assistance, and providing transportation to the hospital, if necessary.

Nurses

The outpatient clinics, as well as the treatment area, are staffed by full and part-time registered nurses, a nursing assistant, and a nurse manager. Nurses provide counseling to patients with regard to radiation side effects and supportive care. They are present for procedures such as pelvic examinations and biopsy procedures and aid in scheduling laboratory studies and x-rays. They direct the order in which patients are to be seen. They are responsible for supplies in the examining room and are available to assist physicians and to attend to the general needs of the patients. This team also includes 2 nutritionists and patient care coordinators who assist patients through the hospital system, coordinating flow from other departments.

Clinics:

Founders Clinic

All follow-up and consultations are seen in the Founders clinic, located on the ground floor of the Founders building. The receptionists receive and greet all patients arriving in the department and process billing information for all patients arriving for follow-up and consultation visits. Receptionists are also responsible for coordinating future follow-up appointments and diagnostic studies. Out-patient consultation and follow-up billing forms forms must be processed as soon as possible and should not leave the clinic area.

Donner Clinic

Radiation treatment is delivered in the Donner Clinic (ground floor of the Donner Building). CT simulations, set-ups, and on-treatment visits also take place in the Donner Clinic. The receptionist in the treatment area receives and greets all on treatment patients arriving in the department for daily treatment and processes billing information. The receptionist also acquires all necessary demographic information on patients and enters this information into the computer database. Inpatient consultation billing forms are to be completed and given to the receptionist as soon as possible with a diagnostic code written on the form to allow for proper billing of the patient. These forms may be hand carried to the front desk or placed in the appropriate mailbox.

Billing Clerk

Billing clerks are responsible for acquiring all necessary demographic information on new patients and entering this information into the computer databases. They will certify that patients' insurance concerns are addressed, and are responsible for pre-certification clearance of all treatment and studies ordered for patients. It is the resident's responsibility to communicate with the billing clerk regarding new patients billing issues. It is the resident's responsibility to complete and return in-patient consultation forms stamped with the patient's plate after a patient is seen in consultation by placing it in the billing office mailbox.

Secretarial Staff

The secretarial staff provides academic and clinical support for the staff physicians. Secretaries are responsible for correcting transcriptions and other correspondence and sending out patient correspondence including history and physicals, on treatment visit notes, completion summaries, follow-up notes, etc., for both the staff physician and the resident assigned to that service. They are responsible for maintaining the staff physician's appointment schedule. They receive and schedule consultations, both in-patient and out-patient, for the appropriate physician. They are responsible for correctly filing correspondence on all patients under treatment and for obtaining records on new patients from referring physicians. They are also responsible for notifying patients of missed appointments and scheduling new ones.

File Room

The file room clerks maintain Radiation Oncology patient records, portal films, and alphabetical cross files. They are responsible for gathering charts as needed for follow-up, consultation, simulation, etc., and taking these charts to clinic area so they are available to the physicians on the appropriate day. They are responsible for filing patient correspondence on all patients not under treatment. They are also responsible for gathering charts and portal films for physicians for research projects.

If a chart is removed from the file room, it must be replaced with a sign out card complete with patient's name, history number, and name of physician using the chart. Charts for patients under treatment are kept by the treatment machine and charts should **never be removed** from the treatment area. Portal films for patients having completed treatment are kept in the file room. Portal films for patients under treatment are kept in the film viewing room.

Technical Staff

The technical staff in the treatment area consists of a chief therapist and an assistant chief, as well as staff and student radiation therapists. All staff

therapists are registry certified in radiation oncology. The therapists are responsible for the delivery of the prescribed daily treatment, acquiring weekly portal images for quality assurance, emergency treatments on nights and weekends, simulations and out-patient HDR brachytherapy procedures as well as other special procedures in the clinical setting.

Library Facilities

Library facilities include the Penn Medical School Biomedical Library which houses some 180,000 volumes and 4600 journals as well as the departmental Radiation Oncology library which has a smaller section of recent oncology journals. Literature searches and information retrieval is supported remotely over World-Wide-Web resources from any departmental workstation. These include searches through

Medline - Ovid

Internet Literature Search via PubMed Engine

Penn Library Holdings

Internet – YAHOO…

NCI - CancerLit and PDQ

PennLin Graphical Library Indices including Britannica OnLine, Dictionaries…

III. DEPARTMENTAL ADMINISTRATION

Chairman of the Department

The chairman of the Radiation Oncology Department is Stephen Hahn, MD. He is responsible for hiring of all residents. The chairman must approve all requests for departmental funding for the residency program and individual residents. The chairman will make the final determination regarding any termination or corrective action. The chairman will communicate any relevant departmental policies or issues that pertain to the residency program.

Director of the Residency Program

The director of the residency training program is Neha Vapiwala, MD. She is responsible for all clinical aspects of resident training and arranging appropriate rotations. The program director will meet with each resident individually on at least a semi-annual basis to review their progress in residency, log totals, in-training exam results and to discuss any educational concerns on the part of the program director or resident. The program director is the chairperson of the Education Task Force, and will meet with that committee approximately quarterly to discuss residency program issues and educational goals. The director is available to residents to help with individual or collective problems and

represents the residents at periodic staff meetings. He/she will also coordinate and direct any of the research activities residents pursue.

Residency Program Coordinator

The residency program coordinator is Cordelia Baffic. She will maintain all residents' and fellows' academic files and all confidential correspondence and evaluations, and may be contacted for an appointment to review these files. The coordinator will provide organizational support for the residency program and medical student rotations and assist the residency program director and chief residents. The coordinator also administers the recruitment and interview process for residency applicants. The coordinator attends and provides minutes for all Education Committee meetings.

The coordinator is responsible for coordinating resident's benefits and payroll. Paychecks are issued every two weeks on Friday. Any problems or errors on the check, such as taxes, benefits withholding, etc, should be brought to the attention of Cordelia Baffic. Reimbursements for meeting travel or other are submitted to the administrative office to the accounts payable manager.

Department Administrator

The department administrator is responsible for accurate records of personnel activity including all payroll and benefit functions and the physical integrity of department operations relating to cost, expense, and revenue.

Chief Resident Responsibilities

One or two chief residents are designated yearly by the Departmental Chair and training program director. Currently, Drs. Pinaki R. Dutta and Christine Hill-Kaiser have been selected to serve as Chief Residents for the years 2008-2009. They schedule night call and weekend call, communicate the weekly didactic schedule with the department, prepare the yearly rotation schedules, assist with the arrangements of visiting professors, oversee resident participation in conferences, help to orient new residents, and generally aid or assist junior residents. The chief resident meets with and advises the training program directors regarding the progress of the program on a regular basis.

IV. RESIDENCY PROGRAM

General Information

The residency program in radiation oncology is four years, after internship. The program is designed to incorporate didactic instruction in clinical oncology, radiation biology, radiation physics, biostatistics, bioethics, systems-based practice and professionalism into a broad and varied clinical experience. First year residents receive an introductory series of lectures in radiation biology,

physics, and dosimetry. The clinical rotations during the first year are directed toward services which see a wide spectrum of oncologic problems at HUP and the Veterans Administration Hospital. The clinical rotations during the second through fourth years are more site-specific to allow for more in-depth training in particular areas. The rotations consist of 12-week blocks and each resident is generally assigned to a staff physician or treatment site. Two additional blocks during the 3rd and 4th years are reserved for research and/or clinical electives.

Requirements of the Residency Training Program

The specific requirements (as of July 2003) of the Accreditation Committee for Graduate Medical Education (ACGME) in Radiation Oncology are on file, and should be reviewed by each resident. The policies outlined in this manual are supplemental to the institutional residency policies as put forth by the Office of Graduate Medical Education.

No less that 36 months of the 48 month residency of the radiation oncology program must be spent in clinical radiation oncology. It is required that two months rotation or its equivalent be spent in adult and pediatric medical oncology. Also required is exposure to oncologic pathology, which is achieved by its integration into conferences and tumor boards. All residents must log their pathology exposure in extramural conferences. **The resident must maintain an up-to-date, detailed list of all procedures in which he/she participates**. All procedures are logged onto the official ACGME online form, and must be completed on at least a semi-annual basis for review by the program director. Residents are required to review the departmental Residency Competency Objectives at the time of matriculation. Residents are required to fulfill all requirements for each PGY level as stated in the Competency Objectives. Residents are further required to adhere to all residency policies as outlined in this policy manual.

The number of patients treated with external beam radiation by each resident, determined by the number of patients simulated, must be no fewer than 150 per year, or a minimum of 450 during the clinical radiation oncology rotations. A resident should not treat more than 250 patients with external beam irradiation in any one year. Only cases for which the resident has primary responsibility may be counted. Cone downs or additional simulations on the same patient at the same site should not be counted. It is required that a resident perform no fewer than five interstitial implants in at least five patients and ten intracavitary implants in at least ten patients. In addition, the resident must assist in an additional five interstitial implants in at least five patients and ten intracavitary implants in at least ten patients during the course of training. If the resident is able to participate as the primary resident in 10 interstitial implants and 20 intracavitary implants in different patients, then no role of observation is necessary. Residents must treat at least 12 pediatric patients with a minimum of 9 solid tumors. Follow-up of irradiated patients by the resident, including pediatric patients, on an in-patient or out-patient basis is required.

The clinical core curriculum shall include experience with lymphomas and leukemias; gastrointestinal, gynecologic, genitourinary, breast, soft tissue and bone, skin, head and neck, lung pediatric, and central nervous system tumors; and treatment of benign diseases for which radiation is utilized. In addition, the curriculum must provide instruction in the physics, radiation and cancer biology, and clinical applicability of the following areas: radiosurgery, intraoperative radiation therapy, three-dimensional conformal treatment planning and delivery, radioimmunotherapy, unsealed sources, total body irradiation as used in stem cell transplantation, total skin irradiation, high- and low-dose rate brachytherapy, hyperthermia, kilovoltage irradiation, plaque therapy, particle therapy, intravascular brachytherapy, and any others that may be developed as they apply to the core curriculum.

The resident also must be trained in the use of external beam modalities, including megavoltage irradiation, electron beam, simulation using conventional and CT simulators to localize anatomy, and computerized treatment planning. The faculty must ensure that the resident personally performs technical procedures, including treatment setups as well as intracavitary and interstitial placement of radiation sources.

CONFERENCES

Intradepartmental clinical conferences at HUP

A radiation therapy Didactic Lecture Series is given regularly. Residents and faculty are responsible for presenting a didactic lecture on a selected topic which includes review of the literature and a formal slide presentation. Didactics are organized in site-specific topical modules and are coordinated with the other weekly conferences. Each resident is expected to give two didactic lectures per year. First year residents are assigned topics by the chief residents. More senior residents may request certain topics but are required to prepare at least one new lecture per year.

The radiation therapy **Case Conferences** are held each block and are organized and presented by the residents. The conference is run by senior residents or the faculty. The conference is devoted to case presentations and literature reviews. Management issues are discussed. The sessions are interactive, and preparation is expected.

Chart Rounds are held once a week (usually at 7:45 a.m., Tuesday). During this conference all set-ups performed during the prior week are presented and simulation films are reviewed by the staff and residents. Residents are expected to present patients for whom they were involved in the set-ups. Suggestions for correction are discussed. This is a confidential quality assurance conference. Residents participate in the QA process during this conference.

Journal club is also scheduled on a regular basis. Residents are assigned articles from the peer-reviewed medical literature, and should present the article as well as relevant other papers and a critique of the article. Residents assigned

to present the article are expected to submit a “journal scan” that includes a review of the article. This written review will be posted on the Oncolink website and should be submitted electronically to either the chief residents or to the editor of Oncolink.

Morbidity and mortality conference is held quarterly, and is part of the confidential departmental quality assurance program. Faculty will submit cases of morbidity or mortality that directly result from their radiation treatment. A resident will be assigned to review and present each case along with the relevant medical literature.

Brachytherapy Conference is held in conjunction with the appropriate didactic clinical modules, including gynecologic, intravascular, genitourinary, sarcoma, and head and neck.

Resident Jeopardy is held at the end of each didactic module. This is an interactive conference in which teams of residents answer questions about the clinical topics discussed in conference and compete for points. The questions and answers are written by the chief residents. Preparation is expected.

Combined Radiology and Radiation Oncology Case Conference is a joint conference held in conjunction with the Department of Radiology and Radiation Oncology. A radiation oncology resident will prepare a case presentation and submit it to the assigned attending radiologist a week prior to the actual conference. The presentation will begin with radiation oncology, the radiologist will present the important findings of the imaging, and the radiation oncologist will conclude the session in regards to the treatment plan.

Radiation biology course

The radiation biology lecture series is given in the spring of each year by the radiobiology staff for residents and attending staff. The course coordinator varies each year. This course includes didactic lectures on all aspects of radiation effects on normal and neoplastic tissue.

Radiation physics course

The clinical radiation physics lecture series is given in the fall and winter and is specifically designed for the education of residents in radiation physics. The course coordinator is Indra Das, PhD.

Course Performance Requirements

All Radiation Oncology residents are required attend each lecture series in Radiation Biology and Radiation Physics, which the department is required to offer, and Biostatistics in the years that it is offered. Performance is partly based on examinations administered by the individual course directors. The course directors are responsible for determining which other factors will also contribute to the grading for their course. The course directors will inform the residents of

the grading procedures that will be considered in order to assess the resident's performance in the course at the beginning of each year. For the physics class, in addition to didactic lectures, two midterm exams are administered and comprise 50% of the final course grade. The remaining 50% comes from the Raphex exam that is administered in the June.

Residents are required to achieve passing grades in Radiobiology, Physics and Biostatistics. The course directors will notify residents what components are considered in grading and what constitutes a passing performance at the beginning of each course. If a resident fails either Radiobiology or Physics, all travel and book allowances may be rescinded for the entire following academic year. If a resident fails both courses within the same academic year, or fails one course two years in a row, that individual may be placed on academic probation. Failure may be considered in the Program Director's assessment of academic progress and may contribute to a recommendation for dismissal from the program.

Residents experiencing difficulty in any of the required courses are encouraged to inform the Program Director or his/her mentor. Special instruction may be provided to individuals as needed and will be considered if the resident has demonstrated an effort to learn the course material.

Biostatics

The program must also familiarize the resident with medical statistics, through an organized program of lectures held biannually and through conferences. For example, statistical considerations are discussed in each Journal Club.

Interdepartmental Clinical Conferences

A multidisciplinary medical oncology, radiation oncology, and surgical oncology Grand Rounds are held once per week. Lectures are presented by the staff and outside speakers. All residents are expected to attend these conferences.

A multidisciplinary head and neck cancer conference is held once per week. Pathology, radiology and cases are presented by the ENT service for joint decisions on management. Residents currently on services treating head and neck malignancies should attend.

Multiple multidisciplinary pediatric oncology conferences are conducted during the week. Cases are presented by the pediatric service for management decisions. Residents on this service should attend.

A multidisciplinary gastrointestinal clinic and conference are conducted once per week. Cases are presented by the residents and/or fellows on the service for management decisions. Residents on this service should attend.

A multidisciplinary gynecologic oncology pathology and treatment planning conference is conducted once per week. Cases are presented by GYN oncology

fellows and/or residents for management decisions. Residents on this service should attend.

A multidisciplinary pulmonary conference is held once per week. Pathology, radiology and treatment options for cases are presented by staff from the pulmonary and thoracic surgery services for management decisions. Residents on this service should attend.

A multidisciplinary brain tumor conference is held once per week. Radiologic exams and management for the cases are presented by staff from the CNS service for management decisions. Residents on this service should attend.

A multidisciplinary lymphoma conference and a bone marrow transplant conference are held once per week. Pathology and patient case management is discussed. Residents on this service should attend.

Multiple Philadelphia Veterans Association Medical Center Tumor Boards are held during the week. Cases are presented by the medical staff for treatment decisions. All residents on the VA Hospital rotation should attend these conferences.

The Division of Medical Oncology conducts research seminars which are presented once a week. Lectures are presented by visiting scientists, as well as those from the University on current or future areas of research investigation.

Attendance is expected from residents on each specific service at these conferences. However, if a didactic lecture conflicts with any of these interdepartmental conferences, the resident is expected to attend the intradepartmental conference.

Elective Time

Specialized training, involving one month each in Radiology, Medical Oncology and clinical dosimetry, is typically completed during one rotation block during the PGY-3 year (second year of Radiation Oncology training). A separate document on the expectations of the specialized training block is available and should be reviewed prior to its commencement.

Elective time is available during the final two years of residency. All projects and elective rotations are subject to the approval of the training program director. All research projects must be overseen by a faculty mentor. Residents must submit a short paragraph describing the project and/or planned objectives of the rotation to the program director no less than three months prior to the time of elective. For elective time to be approved for research activities, the proposed project(s) must be of the appropriate scope and time commitment.

Research requirements

All residents are required to complete at least one research project during their residency. Failure to meet this requirement may result in withholding of certification of successful completion of the residency training program.

Completion of a research project is defined as acceptance of an abstract to a national meeting and/or submission of a manuscript for publication in a peer-reviewed medical journal. Therefore, research projects conducted by residents should be of publication quality.

All new research projects must be pre-approved by the residency program director. The resident should schedule a meeting with the program director and submit a brief description of the project (hypothesis, methods, IRB approval status, etc.) before beginning work. Projects must first be approved and then overseen by a mentoring departmental faculty member. Progress on a project should be discussed monthly with the mentoring attending faculty member. Progress will be discussed twice yearly with the residency program director.
First year residents are discouraged from beginning projects for the first six months of their residency without permission of the training program director. Residents in other years will be allowed to work on multiple projects contingent upon their clinic performance and evaluations, knowledge level and ability to complete research work. If the resident’s clinical performance is not satisfactory, he or she may be limited in their number of approved projects.

Licensing

Throughout the training period, the resident must maintain a State of Pennsylvania medical training license. In the PGY-2 year, the resident must obtain a restricted medical training (MT) license which is administered by the State Board of Medicine. When a resident is accepted into the program as a PGY-2, each will receive an application for licensing which must be completed by the deadline indicated. At this time, copies of the passing USMLE part I and II examination scores must be submitted. **In order to be promoted to PGY-3 level, the resident must provide a copy of their passing score on the USMLE parts I, II and III**. Failure to do so will result in inability to obtain an MT license to practice medicine in the state of Pennsylvania, and therefore, the ability to continue in any clinical training program. Upon entering the PGY-3 year, the resident may obtain an unrestricted medical license. Once obtained, the resident may then immediately apply for a federal DEA license. The department will cover any fees involved in acquiring these licenses. Residents will be provided all appropriate forms by the program coordinator, which they should complete in a timely manner.

Resident Evaluations

At the end of each rotation, the resident's performance is evaluated by the responsible faculty member. Faculty should make every effort to help residents with any problem during a specific rotation. Evaluations should be reviewed with the resident by the responsible faculty member. Evaluations will be sent to the Training Program Director and are made available to the chairman of the department. Evaluations will be reviewed with the program director at each semi-

annual meeting with the resident. Residents are required to evaluate each staff member on the appropriate on-line forms at the end of each rotation and these evaluations will be submitted to the Office of Graduate Medical Education. Evaluations of the faculty are anonymous. Residents are required to submit an evaluation of the residency program annually. The chief residents will meet with the residents as a group and produce a summary report for submission to the chairman and program director.

Examinations

Near the end of each rotation, each resident is required to have a formal oral clinical competency assessment (i.e. an oral board-type exchange) performed by the attending for that rotation. If there is more than one attending for that service, either one or both of the attendings may administer the assessment. This assessment will last for exactly one timed hour (or 2 half-hours if there are 2 attendings administering), and MUST be scheduled sometime during the final two weeks of the rotation. The clinical competency assessment must cover the workup and management of several "bread-and-butter" cases pertinent to the disease site, with discussion of seminal papers supporting the management, as time permits. The specific nature and detail of the questions is at the discretion of the attending physician. A pass/fail grade is assigned. The resident's performance on the competency assessment will be recorded in his/her file and ultimately used to help identify areas of strength and potential areas of weakness over the years.

In addition, all residents are required to take the yearly ACR in-service training examination administered by the American College of Radiology. As mentioned above, Radiobiology and Physics administer their own exams. **Vacations during these exams will not be permitted.**

National Board examinations are administered through the American Board of Radiology (ABR). In the beginning of the PGY5 year, residents may opt to take the radiobiology and physics sections. After completion of the final year of residency, the clinical written exams are taken. Finally, after the first year of practice, the oral clinical exams are held. More specific details about the contents, timing, and scheduling to take the exam can be found on the ABR website. Reimbursement for the examination fees will be provided based on availability of funds and the resident’s standing in the department.

Resident Supervision

As outlined by the institutional Graduate Medical Education Committee (GMEC), supervision of residents is required in all services of the hospital. Supervision should begin with the housestaff’s initial contact with the attending physician and the patient and continue through all contact the housestaff has with the patient. Supervision is complete when all documentation of the hospital stay or clinic visit is collected for the permanent medical record. The responsible staff physician will see **all** consults, reconsults, patients under treatment, and follow-up patients with

the resident. All aspects of treatment planning and implementation must be supervised and approved in writing by the responsible faculty. The faculty must document his or her presence for all areas of supervised work.

In order to ensure patient safety and quality patient care while providing the opportunity for maximizing the educational experience of the resident in the ambulatory setting, it is expected that an appropriately privileged attending faculty member will be available for supervision during clinic hours. Patients followed in more than one clinic will have identifiable attending faculty for each clinic. Attending faculty members are responsible for ensuring the coordination of care that is provided to patients.

Patients with problems must be brought to the attention of the attending physician. The attending physician is responsible for the daily management of the patient. All emergencies will be jointly evaluated by the resident and attending staff on call. For emergency simulations, set-ups, and the first treatment given outside the regular working hours, both the resident and staff on call must be present. Scheduled weekend treatments should be attended by both the attending and the resident if the resident is in his/her first 6 months of training. Beyond the first 6 months, residents alone may supervise off-hour treatments which are a continuation of a treatment course already begun.

RESIDENT RESPONSIBILITIES

Consults – In-patient

Requests for in-patient consults are received either by the call director secretary or the appropriate faculty physician secretary. The resident is notified of the consultation and he/she is responsible for seeing all consults and obtaining the appropriate clinical information, imaging and pathologic studies. The initial part of the in-patient consult form should be completed with a history and physical examination and a review of systems form. These data are then presented to the appropriate faculty physician who will see the patient, together with the resident, within 24 hours of departmental notification. A decision regarding patient management is made and the consult form and billing forms are completed. All notes placed in the patient chart are to be date and time stamped. A copy of the consult is left on the patient's hospital chart, one copy is placed in the radiation oncology chart. Once the patient has been seen by the attending, a complete history and physical must be documented in the department’s system within 24 hours. The billing slip with the patient’s name, medical record number, birth date, diagnosis code and level of service must be placed in the billing department mailbox for completion insurance verification and chart production.

Consults - Out-patient

Requests for out-patient consultations are received by the appropriate faculty physician secretary. Patients are scheduled to be seen in the out-patient clinic area at designated times. A daily schedule for patient consultations, simulations,

setup of new patients, and patients under treatment is available on Medview or IDX. The out-patient consultation is seen first by the resident and then jointly with the faculty member. A complete history and physical is dictated at that time. The resident should ensure that all relevant clinical records, radiology exams and pathology reports are available at the time of consultation whenever possible. Outside pathology slides for each patient accepted for treatment in the Department of Radiation Oncology must be reviewed at HUP. Outside radiology exams to be reviewed at HUP must be submitted to Radiology for consultation with the appropriate reports and forms. Release forms for pathology slides, reports, medical records, x-rays, scans, etc., should be obtained from the patient when appropriate.

All patients who are new to the outpatient clinic should be seen by, or discussed with, the attending faculty at that initial visit. The staff practitioner must document this in the chart via a progress note (or addendum to the resident note).

History and physical examination

History and physicals are documented on all patients seen in consultation. The residents should obtain a complete history and perform a complete physical examination before the faculty physician sees the patient. All signs and symptoms pertinent to the patient's problem must be noted. Dimensions of palpable nodes or masses must be described and recorded accurately. Pertinent negative findings should be also be recorded. At the completion of the history and physical examination, the patient should be staged by **the appropriate staging classification for the primary disease site for ALL patients**. The disease type, stage and date of diagnosis should be recorded on all history and physicals. Diagrams should be completed indicating the nature and extent of the primary and regional disease where appropriate. At the completion of the history and physical, a summary of the salient points of the patient's history and disease status, as well as recommendations and plans for treatment should be described. Each note must also be countersigned by the responsible staff physician.

Treatment Planning

Scheduling of new patients

All appointments (simulations, set-ups, CT scans for planning purposes only) for new patients beginning treatment must be scheduled through the chief or assistant chief therapist. In their absence, a designated person may schedule new patients. In order to schedule a patient, the resident must have the patient's full name, the faculty member responsible for the patient, the area to be irradiated, whether simulation or machine time is required, whether the patient has received prior radiotherapy, and their location (if an in-patient). The resident should also indicate any special circumstances such as contrast medium or special calculations. For IMRT cases, the appropriate requests forms are to be completed and submitted for approval, and the treatment parameters form for the

physicist and dosimetrist should be completed in a timely manner with faculty supervision.

For in-patients at Presbyterian Hospital or other outside facilities, the resident should inform the appropriate person at that institution of the appointment and coordinate the transportation by an ambulance. For in-patients at HUP, the resident should inform the therapists of the patient's location so they may arrange for in-house transport. The resident should ensure that any scheduled appointments do not conflict with the attending faculty's schedule so that the faculty or a covering physician is present as required for all procedures.

Simulation appointments are usually given at one hour intervals. Appointments for simulation on the fluoroscopic simulator and CT simulator for treatment planning are scheduled through the chief therapist, as are all appointments for set-ups, special procedures (such as TBI or general anesthesia cases) and outpatient HDR brachytherapy procedures.

New set-up times are assigned each afternoon. Patients generally begin treatment on that day or on the following day provided unless a specific order requesting an alternate start date is written in the chart. The resident should document in the chart when a patient is ready to start treatment.

Initiation of treatment

Simulation is the process by which the various treatment field outlines and orientations are determined. Either a modified diagnostic x-ray unit with fluoroscopy or a CT simulator is employed. The simulator imitates the treatment field but is not capable of delivering a treatment. Simulation of new patients is performed by the resident, radiation therapist, and faculty physician. Completed simulation films or DRRs must be checked and initialed both by the faculty physician and the resident prior to scheduling the patient for treatment on the treatment machine. For treatment plans to be developed by dosimetry or physics, the resident must delineate the target volume using the patient contour and simulator films. The target volume should include the primary/regional disease, as well as appropriate margins, and should be labeled with the appropriate ICRU-defined label. The target volume, as well as critical structures where a specified dose can be tolerated should be indicated on simulation films or on special forms specific for each site. Examples of these structures include the lens of the eye, the spinal cord, lung, kidney, etc.

Faculty approval of the target volume must be obtained by the resident. If cerrobend blocks or multileaf blocking are to be employed in the treatment, the resident will draw the appropriate blocks on the simulator films or on the CT reconstruction using Eclipse. These images must be approved by the faculty physician before blocks are implemented. The dosimetrist will then apply the treatment plan to provide an optimum treatment plan as instructed by the resident and faculty. The dosimetrist will present this plan to the resident for approval. The resident is responsible for the review of the plan with the faculty

physician. At this time, both physicians should finalize the plan and review the dose per fraction and the total dose to which the treatment should be carried.

At the time of the initial setup of the treatment plan, both the resident and faculty physician should be present. If set-ups are performed by the "doctor of the day", the resident is responsible for viewing the set-up either with that faculty or within 24 hours of the set-up. The resident should perform any clinical set-ups with faculty supervision. Port films will be obtained and will be reviewed and signed by both physicians.

Consents

Consent for treatment is required for all patients prior to simulation. No patient will be treated without a consent form having been completed and signed. The consent may be obtained by the resident or attending faculty either at the time of consultation or prior to simulation. The time necessary to obtain consent should be scheduled so that simulation is not delayed. Therefore, patients signing a consent form just prior to simulation should be asked to come in at least one-half hour before the assigned simulation time, and the faculty and resident should be available for obtaining the appropriate consent.

Consent forms are located in the nursing stations and consist of two part: a general consent form and a site specific insert for side effects and complications. The signed consent should be given to the chief therapist or the simulator therapist. **Consent must be obtained within 30 days of the start of treatment. A new consent is required for every new treatment site or retreatment.**

Patient Examinations - Examination of patients under treatment

All patients under treatment are examined on a weekly basis in the treatment area both **by the resident and faculty physician**. If a patient is treated more than once per day, these exams should be performed every five treatments. Patients who are having problems during treatment are examined as often as necessary. A nurse should be present for all biopsy procedures, pelvic examinations, and whenever else indicated. X-rays and laboratory studies are requested through the nurse and coordinated with the ancillary staff.

Each attending physician has a specific day to see patients under treatment. Once the patient has been checked in at the reception desk, the nurse will then obtain his/her weight, check the laboratory reports or recent test results and place the patient in an examining room. The resident will then be notified that the patient is ready. At the time of the examination, the radiation dose should be recorded, as well as physical findings, side effects, or problems encountered. If a change in the treatment plan (i.e. cone-down, electron beam appointment, change in blocks, resimulation, or target plan) is indicated, this should be scheduled with the chief therapist as soon as possible. Advance planning is required in order to keep the patient on schedule.

When a patient is suspended from treatment, the nurse and appropriate technician should be notified personally, and the date at which treatment is to resume should be indicated by a written order on the prescription sheet. The chart should be given to the chief therapist.

Telephones, as well as computers to document progress notes, are available in the treatment area and in some examination rooms. Use of the nurses station should be kept to a minimum by resident or faculty physicians. In-house consults may be seen in the treatment area provided that it is scheduled with the nurses at a convenient time. At the completion of treatment, the patient should be examined, and a follow-up appointment is scheduled through the nurse for a time determined by the physician.

Chart Completion

At the completion of treatment, a treatment summary (EOT) is dictated by the resident with details concerning both external beam and intracavitary or interstitial therapy. The EOT includes a brief history of the patient, the region treated, the dates of treatment, the daily dose, the total dose and number of fractions for each treatment region or course, any problems encountered during treatment, and arrangements for follow-up care.

Completion notes are to be dictated the same day the patient has finished! This and all follow-up notes should indicate where and when the patient is to be seen in follow-up. For instance, a completion note should state, "The patient will be seen for follow-up in radiation oncology in 4 weeks, and is also scheduled to be seen by medical oncology at that time".

Follow-up clinic

At the completion of treatment or discharge from the hospital, patients are given follow-up appointments. Each attending physician is assigned a specific day to see follow-up patients. Patients are examined both by the attending physician and the resident and follow-up notes **are documented at the time the patient is seen**. In general, out-patients undergoing x-rays or other imaging studies on the day of follow-up will hand carry any films to the follow-up clinic where they will be reviewed both by the resident and attending physician. For digital images, the resident is responsible for retrieving these from the PACS system. The staff room is available for discussions and telephone calls for residents and staff physicians and this area should be utilized rather than the nurses station.

Return outpatients should be seen by and discussed with the attending faculty at such a frequency as to ensure that the course of treatment is effective and appropriate. The medical record should reflect the degree of involvement of the attending faculty, either by physician progress note (or addendum), or the resident’s description of attending involvement.

Night and Weekend Call

The resident on call schedule is prepared by the chief resident(s) subject to review and approval by the program director. In general, the more senior the resident, the fewer calls are assigned. All residents are included in the call schedule. An on call guide is also available and should be reviewed accordingly. Emergency consults, such as spinal cord compression, superior vena caval syndrome, or brain metastases, must be evaluated by the on call resident immediately following the request for consultation. The on call attending staff will also evaluate the patient. The on call resident is responsible for treating emergency patients, as well as others who have already been started on emergency treatment and require continuing treatment through the weekends or holidays. A consult sheet must be completed on all emergency in-patient consults and placed on the patient chart. The resident on call will also document a history and physical on the emergency consult and this should be given to the appropriate attending physician secretary who will ultimately be managing the patient. Residents can take call from home nightly provided that they live no more than 1 hour from the hospital. The resident will be contacted via their pager, and must have this pager on their person at all times while on call.

The on call schedule is e-mailed to each resident and staff physician for each month. Changes in the on call schedule should be given to the on call secretary as soon as possible. Changes made within a week of the upcoming on call should be relayed directly to the hospital page operator, departmental phone receptionist, and on call attending. In general, the on call period is one week at a time, beginning and ending on Mondays.

In-Patient Issues Admissions

Admissions are scheduled through the admissions office. It is the responsibility of the resident to follow admissions and notify the resident on call of potential admissions or problems. All residents should notify the resident on call of any patients who should be checked for any reason during the weekend or weekday evening.

Removal of Brachytherapy Sources - HUP Departmental Policy

The attending and resident who performed the implant or insertion are responsible for its removal and for rounding on such patients if they are in-patients over a weekend and for taking any off-hours calls on these in-patients. The resident and faculty should leave their pager information on the patients hospital room and chart. The on-call resident may be asked to round on the patient, if requested by an attending.

Medical Records

Residents are responsible for documenting operative reports for intracavitary and interstitial procedures **on the same day as the procedure**. The resident is responsible for the admitting history and physical which should include the chief complaint, history of present illness, personal history, family history, social history, systems review, physical examination, provisional diagnosis, proposed study, and intended plan of treatment. The resident is responsible for all required hospital and operating room forms prior to admission. The resident is also responsible for progress notes during the patient's in-patient stay.

Patients who are receiving radiation while in the hospital should have weekly notes placed on their in-patient chart. This is generally done on the on-therapy examination day. The note should summarize the patient's progress as well as any complications of therapy and recommendations for alleviation. The current radiation dose as well as ultimate therapeutic plans should also be summarized. The treatment plan should also be summarized in the in-patient chart to coordinate any logistical issues involved with the in-patient team. The resident is expected to communicate any changes or issues that may arise on treatment with the in-patient team. Furthermore, the resident should make sure that his/her pager number is readily available to the in-patient team caring for the patient.

Participation in Conferences, Journal Clubs, Didactics, and Seminars

All residents are expected to attend and contribute to the intra- and interdepartmental conferences listed above. Attendance at conference is recorded and takes precedence over clinical responsibilities. The exception is if the attending physician requests the resident's assistance for a special circumstance during conference time or, of course, in the case of a patient emergency. Announcements for resident seminars, journal club, and journal club articles are distributed via the weekly schedule sent from the chief residents' office. A yearly schedule is distributed at the beginning of each academic year but is subject to change given unforeseen circumstances.

Resident Seminars

Each resident will give one formal **hour-long** departmental seminar during each year of the training program. The presentation dates will be coordinated by the chief residents. In an effort to support and stimulate original resident research and to promote an environment of intellectual exchange that takes advantage of the input and expertise of our department, the resident seminars serve as a forum for discussion of "research in progress". It is recommended that each resident will present a 30 to 40-minute Power Point-based seminar on an original research project. This project could be based on a research effort in which the resident has been involved, or something new. The objective is to develop the next step, or to focus on ideas for a brand new project. Proposed projects can include: retrospective studies, prospective clinical trials, qualitative studies (focus groups, patient interviews), translational studies, animal studies, or other basic

research projects. After the presentation of the research idea, the remaining 20-30 minutes will be used for discussion and constructive feedback from the audience on the proposed project. A relevant faculty mentor should be selected from among the physicists or radiobiologists, or clinicians. It can even be a mentor outside the department, depending on the nature of the proposed study. The research topic and your mentor's name should be discussed with the program director no later than 1 month before the scheduled seminar date.

Logs

Residents are required to maintain the online ACGME patient log of all external beam and brachytherapy patients, to be reviewed twice a year by the program director. Residents must keep a personal log of all clinical exposures to training in Radiology, Pathology, and Medical Oncology during clinical rotations and interdepartmental conferences.

Journal Clubs

Articles for journal club should be limited to 3 or less and should be chosen with the help of the training program director or appropriate faculty member. Residents will be assigned these articles for review and presentation to the conference. The presenting resident should not only review the article contents, but also the pertinent relevant literature and provide a critique of the article. All residents should read the journal club articles prior to the conference, be prepared to discuss the articles presented and suggest follow-up studies in that clinical area. The chief resident is responsible for distributing the articles to the department in hard copy form. The presenting resident will submit a Journal Scan to be posted on the Oncolink website.

DEPARTMENTAL POLICIES FOR RESIDENTS

Requirement of PGY1 Year at HUP

The Radiation Oncology training program is classified as a “Categorical Program”. Prior to entering the four-year radiation oncology residency program, residents will automatically be accepted into a one year-long internship at the University of Pennsylvania’s Department of Medicine. Applicants do not interview separately with the Medicine department.

The Internship consists of a one-year experience that provides residents with opportunities to assume increasing levels of responsibility as the year advances, in order to better prepare them to enter the Radiation Oncology Residency Program. Rotations will be based predominantly at the Hospital of the University of Pennsylvania (HUP), with some rotations at our affiliated institutions (VA Hospital and Presbyterian Hospitals). The Internship Program is administered by the Department of Medicine’s Vice Chair for Education, Lisa Bellini, MD.

Interns will typically spend one or two months in an intensive care unit rotation, six or seven months on inpatient medicine wards, three months on elective rotations, and one month on vacation.

Primary responsibilities include:

- Directing care for 6-10 patients on the general wards, and 4-6 patients in the ICU's, including all order writing, test ordering, relevant procedures and documentation;
- Functioning as an integral team member;
- Providing continuous primary care to a panel of between 80 and 100 outpatients through their continuity practices;
- Attending a minimum of the required departmental conferences, including intern report, and inpatient and outpatient management conferences.
- Evaluating the supervising faculty at the conclusion of each rotation.

You will have one protected weekend off a month, and a total of one month vacation per year.

More information is available at the department of Medicine's website: http://www.uphs.upenn.edu/medicine/medicine2/education/residents/resappinfo/index.html

Vacation, Conferences, Maternity Leave, and Corrective Action

Residents are permitted four weeks (20 working days) of vacation time during any one academic year. Residents are requested not to take vacation during the first week of any rotation and no more than two weeks of vacation during a single rotation. Any time off taken during the Christmas and New Year holidays is considered part of the allotted 20 days of vacation time.

All vacation must be requested in writing using the appropriate form at least two weeks in advance. The attending physician must approve and sign the vacation request. All departmental absences will be recorded by the chairman's office. Any vacation requests that are submitted with less than two weeks notice must be approved by the program director. The resident must submit an explanation in writing for such requests. Acceptable reasons for such requests include family or personal illness or other emergencies or a death in the family. Cross-coverage may be required from another resident if the attending on the service is also out the same days as the vacation request.

While at satellite facilities or outside rotations, vacations must be approved by the supervising staff and program director. Vacation request forms are to be forwarded to HUP as soon as they have been approved by the supervising faculty member at the satellite or affiliated facility. Vacation requested during elective or research time must be approved by the program director.

Sickness and Leave

If a resident is ill for a prolonged period of time (absence longer than seven consecutive days), the department chairman may consider the resident to be on leave for medical reasons and continue paying his/her salary for the period up to the time that long-term disability comes into effect. A demanding personal problem may justify a leave of absence. If the chairman of the department finds that the circumstances warrant the leave, then the chairman may elect to grant a paid leave up to one month. If a resident is totally disabled and therefore unable to work, the department will continue his/her salary for a maximum of six months. The resident covered under applicable long-term disability will cease to receive the salary. The resident should not receive an amount greater than pre-disability income while on total or partial disability. If the resident returns to work on partial disability, the monthly insurance benefit plus the salary from part-time employment is not to add up to more than the full-time salary paid prior to disability. Fringe benefits continue only to the end of the resident's current contract year, (i.e. the contract year in which the disability occurred). If the resident is reappointed, benefits will continue on a contract year to contract year basis. After the resident's third year, he/she falls under the University's long term disability plan.

Corrective Action

I. Corrective Action

House officers may be disciplined for failure to adhere to appropriate patient care, moral, ethical, academic or professional standards; failure to properly complete medical records in a timely manner; violation of the policies, procedures, or requirements of the Clinical Department, Medical Board, or applicable policies and procedures within the Hospital Policy Manual for Employees.

The Chairman and Training Program Director of the Department to which the house-officer is assigned shall be responsible for discipline. The Chairman or Program Director will meet with the house-officer and provide oral or written justification for the discipline. If a second disciplinary action is required, the following examples of disciplinary actions may be utilized by the Chairman or Program Director.

1. Oral notification to house-officer with details of the problem.

2. Written notification to house-officer with details of the problem which could include copies of documents or other materials such as "nations, letters of complaint, attendance logs, reports from licensure board or written response and submission of materials from house-officer

3. Additional supervision or specific directives for house-officer with clear educational goals and performance expectations.

4. Counseling, medical evaluation, unpaid leave of absence.

5. Probation.

If a house-officer desires to speak or meet with a neutral party in an effort to resolve a conflict, he/she should contact the Associate Dean for Student and Housestaff Affairs or the Director of Employee Relations in the Hospital's Human Resource Department.

II. Suspension and Termination

House officers shall be suspended, terminated or removed from direct patient care activities if:

• their graduate medical training license is suspended or revoked.

• their conduct presents an immediate threat to the well being or safety ofpatients, staff, and hospital employees.

• after a probationary period, the house-officer continues to not meet the institutional or departmental standards and it appears that remedial action will not rectify the problem.

III. Review Procedure

The following review procedure is a formal method by which a house-officer can voice dissatisfaction when the house-officer feels unjustly treated in a disciplinary action and the dispute has not been resolved between the house-officer and Chairman or Program Director.

A house-officer who has been disciplined as described in Section I may request a review of the disciplinary action. The scope of the review is limited to a determination of whether the discipline was imposed following a fair process by the Department. Failure by the house-officer to meet the requirements below constitutes a waiver of the house-officer's right to obtain a review.

• Within fifteen (15) working days of the receipt of notification of disciplinary action or the initiation of disciplinary action, whichever comes later, the house-officer must provide a written request for review of the disciplinary action to the Chairman of the IRRC. This request should be submitted confidentially through the Office of Medical Affairs. The Office of Medical Affairs will contact the individuals in the Offices of Legal Affairs and Human Resources who are designated to assist in the review process, as necessary.
• The written request must contain the house-officer's detailed account of the incident(s) that led to the discipline and the reason(s) why the house-officer believes that the disciplinary action is inappropriate or unjustified.

The Chairman of the IRRC will review the written request from the house-officer. If after consideration, the Chairman of the IRRC believes a review of the disciplinary action is warranted, he/she will request a full meeting of the members of the IRRC within fifteen (15) working days of receipt of the written request. All

physician members of the IRRC will have voting privileges. In the event thatthe house-officer's Program Director is a member of the IRRC, he/she will not participate in the review process. This Committee shall be presided over by the Chairman of the IRRC and/or a designate, if needed. The Committee shall be charged to review the house-officer's request, the written statement provided to the house-officer by the Department Chairman, and a written statement provided to the IRRC by Chairman. The Committee may meet with the house-officer and the Chairman of the house-officer's Department. The Committee shall notify the house-officer and Department Chairman in writing of its decision within ten (10) working days from completion of its review. All decisions of the IRRC shall be deemed final. The Committee's decision shall be reported to the Executive Director of the Hospital. Housestaff are not entitled to a representative through the review procedure process as outlined above.

If the house-officer is rotating at another institution and becomes the subject of discipline during a rotation at the affiliate Hospital, discipline shall be provided in accordance with this policy.

Meetings and Travel

Attendance at meetings by first year residents will be supported only in special circumstances. For residents beyond the first year, travel and/or attendance at one relevant professional meeting per year will be supported with prior departmental approval. Approval forms must be submitted to the department chair at least one month in advance and must accompany signed/approved absence forms. Travel to additional meetings may be supported for residents presenting papers at those meetings at the discretion of the department chair. Prior approval of the training director is also required. **All meeting support is contingent on availability of department funds**.

Residents should discuss planned time off with the appropriate attending staff on whose rotation this will occur. Except in certain situations, the resident and attending staff should not be away at the same time. It is the responsibility of the resident to notify all appropriate staff when he/she is away. If the resident and attending on the same service must be away at the same time, the resident is responsible for obtaining a covering resident for the duration of the absence, and for providing that covering resident with a sign-out on all on-treatment patients to ensure continuity of care.

Any requests for travel to ASTRO should be submitted well in advance (at least two months). Requests for attending ASTRO will be considered on a first-come, first served basis, with priority given to those presenting papers and to senior residents scheduling interviews.

Reimbursement of Expenses - Travel

All travel requests must be approved by the Department Chairman, as well as the staff physician on whose rotation the travel will occur at least one month in

advance. Travel procedures include: 1) a form entitled "Request to Allocate Funds" must be completed by the resident at least one month prior to the meeting and approved by the chairman of the department; 2) a form entitled "Request for Absence from the Department" must be completed by the resident and signed by the program director, as well as the attending staff physician on whose service the absence will occur; 3) after returning from the trip, a form entitled "Request for Reimbursement of Travel Expenses" must be completed and submitted to the department administrator and accompanied by original receipts for airfare, train, auto rental, meeting registration, hotel bills, and other expenses. Certain expense guidelines must be followed in order that reasonable costs are maintained, such as meal costs, cabs, hotels, etc.

For travel to meetings, the decision for funding will be contingent on the quality of the work to be presented, as determined by the program director or chairman. Furthermore, travel funding may be refused if a resident has failed to complete and submit a manuscript for research presented at prior meetings. While funding will not depend upon publication itself, the resident must be able to demonstrate that a manuscript has been or will be written and submitted for publication. Orphan abstracts from previous meetings will be considered in the determination for travel funding.

Reimbursement of Expenses - Books and journal subscriptions

A $350 per year allowance will be provided for each resident for professional books and journal subscriptions.

Reimbursement of Expenses - Malpractice

Malpractice insurance for each resident will be provided by the department as part of a group policy.

Reimbursement of Expenses - Medical license

Application and registration fee for a permanent Pennsylvania medical license will be paid for by the department.

Reimbursement of Expenses - Laboratory coats

Up to two laboratory coats per year for each resident will be paid for by the department. Laboratory coats should be requested through the program coordinator. Laboratory coats are expected to be maintained in a reasonable and clean condition. Laundry and ironing services are provided by the hospital.

Moonlighting

Moonlighting in Radiation Oncology is prohibited and violation of this policy will be grounds for dismissal. Other moonlighting activities are not encouraged but must be approved on an individual basis by the Chairman. **It is the responsibility of the resident to inform the Training Program Director, in writing, of any moonlighting activity or changes (additional or lessening) of moonlighting activities**. A form is available that includes the name of hospital, amount of time, and current schedule. This form should be submitted for approval by the chairman and training director and must abide by the rules and regulations outlined on the form. **The resident must present evidence of appropriate professional liability coverage, since the Medical Center does not cover any activities outside the training program.**

Keys

Keys to the department will be supplied by Cordelia Baffic and should not be copied.

Beepers

Short range beepers and batteries are supplied by the department.

Benefits

Life insurance is provided without cost in the amount of two times the basic annual earnings. This is term life insurance, payable upon death to the designated beneficiary.

Health insurance is available to residents and eligible dependents through a variety of providers. The resident must select the plan of his/her choice. Vision care, dental care, and a prescription plan with a deductible are available after completion of one year of service.

Payroll banking programs are available with direct deposit of paychecks to designated banks.

Retirement plans are available. Participation is voluntary and there is no matching contribution from the hospital.

Duty Hours and Fatigue

Continuous on-site duty, including in-house call, must not exceed 24 consecutive hours. Residents may remain on duty for up to 6 additional hours to participate in didactic activities, transfer care of patients, conduct outpatient clinics, and maintain continuity of medical and surgical care. No new patients may be accepted after 24 hours of continuous duty. A new patient is defined as any patient for whom the resident has not previously provided care.

Teaching faculty as well as all house staff "must be educated to recognize the signs of fatigue and adopt and apply policies to prevent and counteract the potential negative effects". Residents and faculty may fulfill this requirement by completing the GME's online training session from the American Academy of Sleep Medicine (AASM), called the S.A.F.E.R. Presentation. Other information on fatigue is available form the GME office and the program director.
In order to reduce the risk of fatigue residents should not work more than 24 consecutive hours and should be protected during off hours designated for sleep. Residents should learn to recognize the signs of fatigue in themselves and their colleagues. Residents should address any co-existent medical problems which contribute to sleep deprivation. Residents should inform the program director of any issues leading to fatigue and seek assistance.

Substance Abuse

The health system is eager to assist house staff with a substance abuse problem and encourages any trainee with a substance abuse problem to contact his/her program director or the Chair of the GME Committee for assistance. The health system will not discipline any member of the house staff for his/her self-disclosure. Self-disclosure will not, however, excuse a violation of any other policy or dereliction of other duties.

Housestaff who use illegal drugs or abuse controlled substances or alcohol are encouraged to seek help from available resources. The UPHS employee assistance program is available for all housestaff who require assistance. Program directors are required to make information known to all housestaff about the availability of this assistance. GME staff will also make this known during orientation sessions. Further information regarding treatment and counseling are available through the GME office.

A member of the housestaff who violates the policy may be subject to disciplinary action, including termination. At the discretion of the health system, a trainee may be referred to an assistance program and may be required to participate in and satisfactorily complete a chemical abuse rehabilitation program as a condition of continued trainee status.

Counseling Services

Psychiatric services provide counseling to housestaff on a limited basis. The medical center will contribute to a maximum of four sessions per year. Additional counseling will be determined on an individual basis by the therapist in consultation with the patient. Consultations can be obtained through the triage coordinator in the Department of Psychiatry and will be made with complete confidentiality. The program will insure complete resident confidentiality. There will be no communication between the therapist and the resident's department unless patient's permission is granted.

For additional information regarding benefits, contact the department residency coordinator.

Appendix

(Available on request from the Office of the Chief Resident)

1. Glossary of Terms Relating to Radiation Oncology
2. Copy of Resident Agreement
3. Request for Travel Advance
4. Request of Reimbursement of Funds
5. Request for Absence from the Department (vacation, meetings, etc.)
6. Form for Approval of Research Project
7. Resident Evaluation Form
8. Transportation Referral Form
9. Consultation Forms
11. Departmental Directory
12. Conference Schedule
13. Resident Rotation Schedule
14. On Call Schedule