

MCWAH RADIATION ONCOLOGY RESIDENT HANDBOOK GOALS AND EXPECTATIONS

PREFACE

The Radiation Oncology Resident Handbook has been developed for radiation oncology residents at the Medical College of Wisconsin. It is designed to provide information pertaining to the goals and objectives, requirements, and specific responsibilities of radiation oncology residents in the Medical College of Wisconsin Affiliated Hospitals program accordance with ACGME requirements. It is to be considered as advisory and is superseded by the Medical College of Wisconsin Affiliated Hospitals Housestaff Handbook. Benefits including leave policies, etc are also discussed.

The information in this handbook is current at the time of printing. However, the faculty of the Department of Radiation Oncology at the Medical College of Wisconsin may modify it at any time.

Please read the handbook and keep it for future reference.

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Description of the Goals Radiation Oncology Residency Program

I. Educational Mission of Training Program

The mission of the radiation oncology residency program at the Medical College of Wisconsin is to train residents to be professional, compassionate, competent **oncologists** skilled in the utilization of radiotherapy to treat cancer and other benign conditions. Training will also establish the foundation for life-long learning with a focus on academic discovery while emphasizing delivery of high-quality patient care. Graduates will contribute to the greater practice of radiation oncology through their unique experiences and backgrounds.

The Radiation Oncology Residency Program at the Medical College of Wisconsin Affiliated Hospitals is a Residency Review Committee and American Board of Radiology fully accredited program designed to educate residents in the current principles and practice of radiation oncology. A four-year program (after completing a rotating clinical internship year) of post-internship radiation oncology, is provided with the goal of educating residents in all aspects of radiation oncology with special emphasis on the multidisciplinary treatment of cancer patients and preparing them for successful execution of the board exams and with emphasis on attaining appropriate knowledge related to the six ACGME core competencies.

***Competencies Evaluated**

1. Medical Knowledge
2. Systems Based Practice
3. Professionalism
4. Interpersonal Skills and Communication
5. Patient Care and Procedural Skills
6. Practice Based Learning

To meet the goals listed above the following four years of training have been designed:

The PGY-2 year consists of 12 months spent in radiation oncology doing clinical work.

During the PGY-3 year, 10 months are spent in clinical radiation oncology one of which is on the Froedtert Menomonee Falls rotation. They will also do a 2 months in a physics rotation.

The PGY-4 year consists of six months of clinical Radiation Oncology) and 4-6 months research time arranged through the Program Director and research mentors. Residents may opt out of the research months and have additional clinical Radiation Oncology time. Other rotations are done outside the radiation oncology departments during the PGY-4 year. The adult hematology oncology consists of one month working with the medical oncology department at the VA. The oncologic imaging month is done at FMLH by arrangement through Dr. Currey and the department of diagnostic radiology, pathology, adult medical oncology. Alternatively, the rotations on pathology, adult heme/onc, and oncologic imaging may occur during the PGY-2, 3, or 5 year as opposed to the PGY-4 year. If intern year is done under the auspices of MCWAH's oversight, rotations during intern year may count toward these required rotations.

The PGY-5 year consists of up to 12 months of clinical radiation oncology. In general 6 months are spent at the Veterans Administration Medical Center pending prior rotations especially in the PGY 4 year with the remaining 6 months divided as follows: 2-4 months

with the resident's staff of choice (depending upon the availability) and 2-4 months in a clinical rotation designated by the Program Director with input from the resident.

In total, roughly 50% of the resident's educational experiences will take place at Froedtert Memorial Lutheran Hospital, designated as the primary clinical site.

All residents are to read the goals and objectives for their given rotation prior to initiation of a given rotation. Residents are to address any questions regarding the goals and objectives with the supervising faculty at the beginning of a given rotation and (if necessary) with the program director.

In addition the MCW institutional requirements can be found on line at: infoscopemcw.edu under departments, Graduate Medical Education, then institutional policies.

II. Goals and Objectives For Entire Training Program by Level of Training PGY2

A. Medical Knowledge

1. Recognizes the importance of medical physics in radiation oncology
2. Recognizes the importance of radiation/cancer biology in radiation oncology

B. Systems Based Practice

1. Recognizes various health care delivery settings and systems
2. Recognizes the importance of cost awareness and risk-benefit analysis for patient-and/or population-based care
3. Recognizes the importance of working in interprofessional teams to enhance patient safety and improve patient care quality
4. Recognizes the importance of advocating for quality care and optimal patient care systems
5. Recognizes the importance of participating in identifying system errors and implementing potential system solutions

C. Professionalism

1. Seeks out, learns from, and models the attitudes and behaviors of physicians who exemplify appropriate professional attitudes, values and behaviors, including caring, honest, genuine interest in patients and families, and tolerance and acceptance of diverse individuals and groups.
2. Is aware of basic bioethical principles; is able to identify ethical issues in clinical situations.
3. Recognizes when in need of assistance and is able and willing to ask for help
4. Understands the importance of physician accountability to patients, society, and the profession
5. Demonstrate responsiveness to patient needs that supersedes self-interest
6. Is aware of the basic principles and aspects of the general maintenance of emotional, physical, and mental health, including issues of fatigue

D. Interpersonal Skills and Communications

1. Recognizes the importance of effective communication with patients, families, and the public.
2. Recognizes the importance of effective communication with the health care team.
3. Recognizes the importance of working effectively as a member of a health care team
4. Recognizes the importance of maintaining timely and legible records, including electronic medical record.

E. Patient Care and Procedural Skills

See Goals and Objectives for specific rotations.

F. Practice Based Learning

1. Acknowledges gaps in personal knowledge and expertise, and frequently asks for feedback
2. Understands the importance of setting learning and improvement goals
3. Can identify problems in health care delivery and see the quality gap in care
4. Understands the importance of the education of patients, families, students, residents, and other health professionals

PGY3

A. Medical Knowledge

1. Understands basic concepts of medical physics
2. Understands basic concepts of radiation/cancer biology

B. Systems Based Practice

1. Works and coordinates patient care in various health care delivery settings and systems for common clinical situations
2. Incorporates considerations of cost awareness and risk-benefit analysis for patient-and/or population-based care for common clinical situations
3. Works in interprofessional teams to enhance patient safety and improve patient care quality in common clinical situations
4. Advocates for quality care and optimal patient care systems in common clinical situations
5. Participates in identifying system errors and implementing potential system solutions in common clinical situations

C. Professionalism

1. Exhibits appropriate attitudes, values, and behaviors in straightforward situations, including caring, honest, genuine interest in patients and families, and tolerance and acceptance of diverse individuals and groups
2. Consistently recognizes ethical issues in practice; is able to discuss, analyze, and manage in common clinical situations
3. Consistently recognizes limits of knowledge in common clinical situations and asks for assistance
4. Demonstrates physician accountability to patients, society, and profession in common clinical situations
5. Identifies and manages common situations in which maintaining personal emotional, physical, and mental health, including issues of fatigue, are challenged

D. Interpersonal Skills and Communications

1. Demonstrates effective communication with patients, families, and the public in common situations
2. Demonstrates effective communication with the health care team in common situations
3. Demonstrates the ability to effectively work as a member of a health care team, including the consultative role, in common clinical situations
4. Maintains accurate, timely, and legible records, including electronic medical record, for some cases.

E. Patient Care and Procedural Skills

See Goals and Objectives for specific rotations

F. Practice Based Learning

1. Begins to assess performance by evaluating feedback and assessments
2. Begins to develop learning and improvement goals, based on feedback, with some external assistance
3. Uses information technology to locate scientific studies related to patient health problems
4. Understands the essentials of quality improvement
5. Participates in the education of patients and their families in common situations

PGY4**A. Medical Knowledge**

1. Applies concepts of medical physics to clinical situations.
2. Applies concepts of radiation/cancer biology to clinical situations

B. Systems Based Practice

1. Works and coordinates patient care in various health care delivery settings and systems for most clinical situations
2. Incorporates considerations of cost awareness and risk-benefit analysis in patient-and/or population-based care for most clinical situations
3. Works in interprofessional teams to enhance patient safety and improve patient care quality in most clinical situations
4. Advocates for quality care and optimal patient care systems in most clinical situations
5. Participates in identifying system errors and implementing potential system solutions in most clinical situations

C. Professionalism

1. Exhibits appropriate attitudes, values, and behaviors in most situations, including caring, honest, genuine interest in patients and families, and tolerance and acceptance of diverse individuals and groups
2. Effectively analyzes and manages ethical issues in most clinical situations
3. Consistently recognizes limits of knowledge in most clinical situations
4. Demonstrates physician accountability to patients, society, and profession in most clinical situations

5. Identifies and manages most situations in which maintaining personal emotional, physical, and mental health, including issues of fatigue, are challenged

D. Interpersonal Skills and Communications

1. Demonstrates effective communication with patients, families, and the public in most situations
2. Demonstrates effective communication with the health care team in most situations
3. Demonstrates the ability to effectively work as a member of a health care team, including the consultative role, in most clinical situations
4. Maintains accurate, timely and legible records, including the electronic medical record, for most cases

E. Patient Care and Procedural Skills

See Goals and Objectives for specific rotations

F. Practice Based Learning

1. Frequently assesses performance by evaluating feedback and assessments
2. Develops learning and improvement goals based on feedback, with minimal external assistance
3. Critically appraises scientific studies related to patient health problems
4. Is able to define and construct process and outcome measures of quality
5. Participates in the education of patients and their families, students, residents, and other health professionals in common situations

PGY5

A. Medical Knowledge

1. Thoroughly understands medical physics concepts for safe delivery of radiation therapy
2. Thoroughly understands radiation/cancer biology concepts for safe delivery of radiation therapy

B. Systems Based Practice

1. Works and coordinates patient care in various health care delivery settings and systems for all clinical situations
2. Incorporates considerations of cost awareness and risk-benefit analysis for patient- and/or population-based care for all clinical situations Works in interprofessional teams to enhance patient safety and improve patient care quality in all clinical situations
3. Advocates for quality care and optimal patient care systems in all clinical situations
4. Participates in identifying system errors and implementing potential system solutions in all clinical situations

C. Professionalism

1. Exhibits appropriate attitudes, values, and behaviors in all situations, including caring, honest, genuine interest in patients and families, and tolerance and acceptance of diverse individuals and groups

2. Consistently and effectively analyzes and manages ethical issues in all clinical situations. Consistently demonstrates the ability to identify limits of own knowledge in all clinical situations
3. Demonstrates physician accountability to patients, society, and profession in all clinical situations
4. Identifies and manages all situations in which maintaining personal emotional, physical, and mental health, including issues of fatigue, are challenged

D. Interpersonal Skills and Communications

1. Demonstrates effective communication with patients, families, and the public in all situations
2. Demonstrates effective communication with the health care team in all situations.
3. Demonstrates the ability to effectively work as a member of a health care team, including the consultative role, in all clinical situations
4. Maintains accurate, timely, and legible records, including the electronic medical record, in all cases

E. Patient Care and Procedural Skills

See Goals and Objectives for specific rotations

F. Practice Based Learning

1. Always assesses performance by evaluating feedback and assessments
2. Performs self-directed learning independently
3. Assimilates evidence from scientific studies into practice
4. Designs and completes a quality improvement project
5. Participates in the education of patients and their families, students, residents, and other health professionals in all situations

Criteria For Promotion:

Promotion from PGY2 to PGY3

Residents should log at least 90 simulations, but this may be modified based upon rotation schedule (patient care)

Residents should achieve at least a level 1 patient care milestone for all disease sites covered on their rotations for the year (patient care).

Residents should achieve at least a level 1 milestone for medical knowledge in both radiobiology and physics (medical knowledge).

Residents should achieve basic competency in the areas of professionalism, interpersonal communication, practice based learning and systems-based practice.

Promotion from PGY3 to PGY4

Residents should log at least 200 simulations, but this may be modified based upon rotation schedule (patient care)

Residents should achieve at least a level 2 patient care milestone for all disease sites covered on their rotations for the year (patient care).

Residents should achieve at least a level 2 milestone for medical knowledge in both radiobiology and physics (medical knowledge).

Residents should achieve improving competency in the areas of professionalism, interpersonal communication, practice based learning and systems-based practice.

Promotion from PGY4 to PGY5

Residents should log at least 320 simulations, but this may be modified based upon rotation schedule (patient care)

Residents should achieve at least a level 3 patient care milestone for all disease sites covered on their rotations for the year (patient care).

Residents should achieve at least a level 2 milestone for medical knowledge in both radiobiology and physics (medical knowledge).

Residents should achieve improving competency in the areas of professionalism, interpersonal communication, practice based learning and systems-based practice.

Criteria for Graduation

Residents must have requisite number of simulations, brachytherapy cases, and radiosurgery cases as required by ACGME (patient care).

Residents should achieve at least a level 4 patient care milestone for most disease sites (patient care).

Residents should achieve at least a level 3 milestone for medical knowledge in both radiobiology and physics (medical knowledge).

Residents should achieve competency in the areas of professionalism, interpersonal communication, practice based learning and systems-based practice as demonstrated by a level 4 milestone in the majority of these areas.

Note: All decisions on promotion will ultimately be made at the discretion of the program director, taking in to account special circumstances. In areas of uncertainty, the program director may also seek input from the Clinical Competency Committee, as well as departmental faculty and leadership.

III. Goals and objectives for Froedtert Radiation Oncology Rotations:

For the clinical radiation oncology rotations over the course of the program, over half that time will be spent at Froedtert Hospital. That time is divided into 2-month blocks when a resident is assigned to two faculty members. These faculty members are paired together in pre-determined teams that are based on when a faculty has clinic at Froedtert and can vary from year to year based on faculty schedules.

Each faculty member treats two or more disease sites. The goals and objectives of a specific faculty's rotation is dependent on the disease sites treated. For example, Dr. Currey treats both breast cancer and skin cancer. Consequently, the Goals and Objectives for his rotation are found in the sections for breast cancer and skin cancer. Below are the goals and objectives for each disease site with faculty who treat those sites listed in parentheses.

A. Goals and Objectives for Genitourinary Malignancies (rotation with Drs. Hall, Longo, Bedi and Straza).

1. Medical Knowledge

- Describe the important elements of a history and physical for patients with genitourinary cancers
- List appropriate staging for these patients as well as the tests needed for workup of their cancers
- Demonstrate knowledge of important studies and supportive literature regarding treatment for patients with GU malignancies.

2. Systems Based Practice

- Order appropriate tests needed for the workup of genitourinary malignancies
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy (including hormonal manipulation), as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion, including brachytherapy and unsealed source therapy such as Strontium, Sumarium or Radium 223.

3. Professionalism

- Perform a history and physical exam for patients with genitourinary cancers
- Design and implement a multi-disciplinary approach (as appropriate) to treat these malignancies including surgery, chemotherapy (including hormonal manipulation), as well as radiation therapy.

4. Interpersonal Skills and Communication

- Perform a history and physical exam for patients with genitourinary cancers
- Coordinate a multi-disciplinary approach (as appropriate) to treat these malignancies including surgery, chemotherapy (including hormonal manipulation), as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion, including brachytherapy and unsealed source therapy such as Strontium, Sumarium, or Radium 223.

5. Patient Care and Procedural Skills

- Perform a history and physical exam for patients with genitourinary cancers
- Order appropriate tests needed for the workup of genitourinary malignancies
- Coordinate a multi-disciplinary approach (as appropriate) to treat these malignancies including surgery, chemotherapy (including hormonal manipulation), as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion, including brachytherapy and unsealed source therapy such as Strontium, Sumarium or Radium 223.

6. Practiced-Based Learning

- List appropriate staging for these patients as well as the tests needed for workup of their cancers
- Coordinate a multi-disciplinary approach (as appropriate) to treat these malignancies including surgery, chemotherapy (including hormonal manipulation), as well as radiation therapy using latest evidence and clinical data.
- Design and deliver radiation therapy in a conformal fashion, including brachytherapy and unsealed source therapy such as Strontium, Sumarium and Radium 223 based on current literature.
- Site supportive literature regarding recommendations for treatment.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Structured Clinical Encounters (STAR center) 1-6
- Mock boards 1,5,6
- Monitoring by nurses, therapists and Dr. Lawton's assistant 2-6
- Chart stimulated recall 1,2,6

Objectives by year of training:

PGY2

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions
- Observes patients undergoing brachytherapy for GU malignancies

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in GU patients treated with radiotherapy
- Selects appropriate patients and understands relevant radiation safety protocols and processes for brachytherapy procedures

PGY4

- Explains the main treatment options
- Designs treatment plans, contours target(s), and contours normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)
- With supervision, manages patients with toxicities/symptoms seen in GU patients treated with radiotherapy
- Plans and performs brachytherapy for GU malignancies with minimal faculty member assistance

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Designs treatment plans, contours target(s), and contours normal tissues accurately; critically evaluates treatment plan options
- Independently manages toxicities/symptoms seen in GU patients treated with radiotherapy
- Is able to independently plan and perform brachytherapy for GU malignancies appropriately

B. Total Body Irradiation for Stem Cell Transplant:

Total body irradiation (TBI) for stem cell transplant both for malignant and non-malignant disease as well as the use of radiation in conjunction with stem cell transplant for malignant disease will be covered. The common diseases that would be treated would be leukemias, both acute and chronic, lymphomas, (both Hodgkin's and non-Hodgkin's), multiple myeloma, and non-malignant diseases such as aplastic anemia or multiple sclerosis.

1. Medical Knowledge

- Describe the essential elements of a comprehensive history and physical exam including documentation for patients potentially undergoing total body irradiation (TBI).
- List and provide rationale for appropriate evaluation tests for patients who are potentially undergoing total body irradiation
- Demonstrate knowledge of important studies and supportive literature regarding treatment with TBI.

2. Systems Based Practice

- Order appropriate evaluation tests for patients who are potentially undergoing total body irradiation
- Implement a multi-disciplinary approach to stem cell transplant regarding both the chemotherapy and radiation as well as how to appropriately combine the two.

3. Professionalism

- Perform a comprehensive history and physical exam including documentation for patients potentially undergoing total body irradiation (TBI).
- Implement a multi-disciplinary approach to stem cell transplant regarding both the chemotherapy and radiation as well as how to appropriately combine the two.

4. Interpersonal Skills and Communication

- Perform a comprehensive history and physical exam including documentation for patients potentially undergoing total body irradiation (TBI).
- Coordinate a multi-disciplinary approach to stem cell transplant regarding both the chemotherapy and radiation as well as how to appropriately combine the two.

5. Patient Care and Procedural Skills

- Perform a comprehensive history and physical exam including documentation for patients potentially undergoing total body irradiation (TBI).
- Order appropriate evaluation tests for patients who are potentially undergoing total body irradiation
- Coordinate a multi-disciplinary approach to stem cell transplant regarding both the chemotherapy and radiation as well as how to appropriately combine the two.
- Design and deliver total body irradiation, as well as other uses of radiation for stem cell transplant patients

6. Practiced-Based Learning

- Order appropriate evaluation tests for patients who are potentially undergoing total body irradiation
- Coordinate a multi-disciplinary approach to stem cell transplant regarding both the chemotherapy and radiation as well as how to appropriately combine the two using the latest literature.
- Site literature support for the use of radiation in total body irradiation

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Mock boards 1,5,6
- Monitoring by nurses, therapists, and Program Coordinator 2-6
- Chart stimulated recall 1,2,6

Objectives by year of training:

PGY2

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in BMT/TBI patients treated with radiotherapy

PGY4

- Explains the main treatment options
- Designs blocks, contours target(s), and contours normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)
- With supervision, manages patients with toxicities/symptoms seen in TBI/BMT patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Designs blocks, contours target(s), and contours normal tissues accurately; critically evaluates treatment plan options
- Independently manages toxicities/symptoms seen in TBI/BMT patients treated with radiotherapy

C. Soft Tissue Sarcoma (Drs. Bedi and Kelly).**1. Medical Knowledge**

- Describe the important elements of a history and physical for patients with soft tissue sarcoma
- List appropriate staging for these patients as well as the tests needed for workup of these cancers
- Demonstrate knowledge of important studies and supportive literature regarding treatment for patients with soft tissue malignancies.

2. Systems Based Practice

- Order appropriate tests needed for the workup of soft tissue malignancies
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion.

3. Professionalism

- Perform a history and physical exam for patients with soft tissue sarcoma
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.

4. Interpersonal Skills and Communication

- Perform a history and physical exam for patients with soft tissue sarcoma cancers
- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion.

5. Patient Care and Procedural Skills

- Perform a history and physical exam for patients with soft tissue sarcoma cancers
- Order appropriate tests needed for the workup of soft tissue sarcoma
- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion.

6. Practiced-Based Learning

- a. List appropriate staging for these patients as well as the tests needed for workup of their cancers
- b. Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy using latest evidence and clinical data.
- c. Design and deliver radiation therapy in a conformal fashion, based on current literature.
- d. Site supportive literature regarding recommendations for treatment.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Structured Clinical Encounters (STAR center) 1-6
- Mock boards 1,5,6
- Monitoring by nurses, therapists and Program Coordinator assistant 2-6
- Chart stimulated recall 1,2,6

Objectives by year of training:**PGY2**

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in soft tissue sarcoma patients treated with radiotherapy

PGY4

- Explains the main treatment options
- Designs blocks, contours target(s), and contours normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)
- With supervision, manages patients with toxicities/symptoms seen in soft tissue sarcoma patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Designs blocks, contours target(s), and contours normal tissues accurately; critically evaluates treatment plan options
- Independently manages toxicities/symptoms seen in soft tissue sarcoma patients treated with radiotherapy

D. Head and Neck Malignancies (Drs. Awan, Firat, Schultz, and Shukla)

Head and neck tumors consists of a wide variety of diseases. These include carcinomas of the oral cavity, oropharynx, nasopharynx, larynx, unknown head and neck primary, paranasal sinuses; carcinomas involving the major and minor salivary glands; and uncommon head and neck malignancies e.g. esthesioneuroblastoma, mucosal melanoma, paraganglioma etc. In the objectives

below, head and neck cancer patients could refer to patients with any of these diseases.

1. Medical Knowledge

- Describe the important elements of a history and physical for patients with head and neck cancers.
- List appropriate staging for head and neck cancers as well as the tests needed for work-up of these cancers and evaluation of normal tissue function.
- Describe the role of radiation therapy, surgery and chemotherapy and their possible toxicities for head and neck cancer.
- Demonstrate knowledge of important studies and supportive literature regarding treatment for patients with head and neck cancers.

2. Systems Based Practice

- Order appropriate tests needed for the work-up of head and neck cancer patients.
- Design and implement a multi-disciplinary approach to treatment for head and neck cancers including surgery, chemotherapy, as well as radiation.

3. Professionalism

- Perform a history and physical for patients with head and neck cancer.
- Design and implement a multi-disciplinary approach to treatment for head and neck cancers including surgery, chemotherapy, as well as radiation.
- Design and deliver radiation including conformal techniques.

4. Interpersonal Skills and Communication

- Perform a history and physical for patients with head and neck cancer.
- Order appropriate tests and referrals needed for the work-up of head and neck cancer patients.
- Design and implement a multi-disciplinary approach to treatment for head and neck cancers including surgery, chemotherapy, as well as radiation.
- Design and deliver radiation including conformal techniques.

5. Patient Care and Procedural Skills

- Perform a history and physical for patients with head and neck cancer.
- Order appropriate tests needed for the work-up of head and neck cancer patients.
- Design and implement a multi-disciplinary approach to treatment for head and neck cancers including surgery, chemotherapy, as well as radiation.
- Design and deliver radiation including conformal techniques.

6. Practiced-Based Learning

- Order appropriate tests needed for the work-up of head and neck cancer patients using latest evidence as basis for decisions.

- Design and implement a multi-disciplinary approach to treatment for head and neck cancers based on current scientific evidence including surgery, chemotherapy, as well as radiation.
- Site literature regarding recommendations for treatment.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Mock boards 1,5,6
- Chart stimulated recall 1,2,6
- Monitoring by nurses, therapists, & Program Coordinator 2-6

Objectives by year of training:

PGY2

- Acquires accurate and relevant history and performs a general physical examination for head and neck cancer patients, including indirect mirror exam.
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Identifies treatment options for head and neck cancer patients
- Perform direct fiberoptic flexible head and neck endoscopy
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in head and neck cancer patients treated with radiotherapy

PGY4

- Explains the main treatment options
- Outlines an appropriate comprehensive treatment plan regarding radiotherapy and other treatment modalities
- Contours target(s) and normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)
- With supervision, manages patients with toxicities/symptoms seen in head and neck patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Contours normal tissue and target(s) accurately; critically evaluates treatment plan options
- Independently manages toxicities/symptoms seen in head and neck patients treated with radiotherapy

E. Adult Lymphoma (Drs. Schultz and Siker)

1. Medical Knowledge

- Describe the important elements of a history and physical for patients with lymphoma.
- List appropriate staging for lymphoma patients, the tests needed for workup these diseases and for the evaluation of normal tissues that may be within the radiation treatment field.
- Explain the histological classification schemes for lymphomas including the working Formulation, REAL classification, and WHO classification.
- Explain the histological classification schemes for Hodgkin's disease including the Rye classification, REAL classification, and WHO classification.
- Describe the role for different disciplines in treatment for these malignancies including surgery, chemotherapy, as well as radiation and potential toxicities of treatment.
- Demonstrate knowledge of important studies and supportive literature regarding treatment for lymphoma patients.

2. Systems Based Practice

- Order appropriate tests needed for the work-up of lymphoma.
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation.
- Design and deliver radiation in a conformal fashion with appropriate treatment margins.

3. Professionalism

- Perform a history and physical exam for patients with lymphoma.
- Order appropriate tests needed for the work-up of lymphoma.
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation.
- Design and deliver radiation in a conformal fashion with appropriate treatment margins.

4. Interpersonal Skills and Communication

- Perform a history and physical exam for patients with lymphoma.
- Order appropriate tests needed for the work-up of lymphoma.
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation.
- Design and deliver radiation in a conformal fashion with appropriate treatment margins.

5. Patient Care and Procedural Skills

- Perform a history and physical exam for patients with lymphoma.
- Order appropriate tests needed for the work-up of lymphoma.
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation.

- Design and deliver radiation in a conformal fashion with appropriate treatment margins.

6. Practiced-Based Learning

- Order appropriate tests needed for the work-up of lymphoma and provide rationale based on latest evidence for these tests.
- Explain the histological classification schemes for lymphomas including the working Formulation, REAL classification, and WHO classification.
- Explain the histological classification schemes for Hodgkin's disease including the Rye classification, REAL classification, and WHO classification.
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation that is based on latest evidence.
- Site supportive literature regarding recommendations for treatment.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Mock boards 1,5,6
- Chart stimulated recall 1,2,6
- Monitoring by nurses, therapists, & Program Coordinator 2-6

Objectives by year of training:

PGY2

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in lymphoma patients treated with radiotherapy

PGY4

- Explains the main treatment options
- Designs blocks, contours target(s), and contours normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)
- With supervision, manages patients with toxicities/symptoms seen in lymphoma patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Designs blocks, contours target(s), and contours normal tissues accurately; critically evaluates treatment plan options
- Independently manages toxicities/symptoms seen in lymphoma patients treated with radiotherapy

F. Adult Brain Tumors and Intracranial Radiosurgery (Drs Puckett, Schultz, Ellison and Straza)

1. Medical Knowledge

- Describe stereotaxis and process of delivery stereotactic radiosurgery for intracranial lesions and or conditions amenable to Gamma Knife radiosurgery including solitary and multiple brain metastases, meningioma, acoustic neuroma, arteriovenous malformations, and trigeminal neuralgia, and other less common lesions for which radiosurgery is appropriate.
- Describe the important elements of a history and physical for patients with primary CNS tumors. These commonly include glioblastoma, anaplastic astrocytoma, low grade gliomas, meningiomas, and pituitary tumors
- List appropriate tests needed for workup of these tumors and or condition including neuropsychologic and auditory function as appropriate
 - a. Describe indications for and possible risks of intracranial radiosurgery.
 - b. Demonstrate knowledge of important studies and supportive literature regarding treatment with radiosurgery.

2. Systems Based Practice

- Order appropriate tests and necessary work-up of these tumors and conditions.
- Coordinate, design an implement and multidisciplinary plan for radiosurgery delivery.
- Evaluate adequacy of head ring placement, pretreatment imaging, treatment plan, and treatment delivery.

3. Professionalism

- Order appropriate tests and necessary work-up of these tumors and conditions.
- Coordinate, design an implement and multidisciplinary plan for radiosurgery delivery.
- Evaluate adequacy of head ring placement, pretreatment imaging, treatment plan, and treatment delivery.

4. Interpersonal Skills and Communication

- Order appropriate tests and necessary work-up of CNS tumors and conditions.
- Coordinate, design an implement and multidisciplinary plan for radiosurgery delivery.
- Evaluate adequacy of head ring placement, pretreatment imaging, treatment plan, and treatment delivery.

5. Patient Care and Procedural Skills

- Order appropriate tests and necessary work-up of these tumors and conditions.
- Coordinate, design an implement and multidisciplinary plan for radiosurgery delivery.
- Evaluate adequacy of head ring placement, pretreatment imaging, treatment plan, and treatment delivery.

6. Practiced-Based Learning

- Order appropriate tests and necessary work-up of these tumors and conditions.
- Coordinate, design an implement and multidisciplinary plan for radiosurgery delivery based on latest evidence.
- Provide and describe supportive literature regarding recommendations for radiosurgery.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Mock boards 1,5,6
- Chart stimulated recall 1,2,6
- Monitoring by nurses, therapists, & Dr. Lawton's assistant 2-6

Objectives by year of training:

PGY2

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions
- Observes patients undergoing radiosurgery

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in CNS patients treated with radiotherapy
- Selects appropriate patients for radiosurgery and understands relevant safety protocols and procedures for this type of treatment

PGY4

- Explains the main treatment options
- Contours target(s) and normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)
- Plans and performs radiosurgery with minimal faculty member assistance
- With supervision, manages patients with toxicities/symptoms seen in CNS patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Is able to independently plan and perform radiosurgery appropriately
- Contours normal tissue and target(s) accurately; critically evaluates treatment plan options
- Independently manages toxicities/symptoms seen in CNS patients treated with radiotherapy

G. Pediatric Malignancies (Drs. Firat and Ellison)**Pediatrics - Brain Tumors**

Pediatric Brain Tumors consist of medulloblastoma, glioma, ependymoma, intracranial germ cell tumor, and craniopharyngioma

1. Medical Knowledge

- Describe the important elements of a history and physical for pediatric brain tumor patients
- Explain appropriate staging and workup for pediatric brain tumors, along with accompanying rationale.
- Describe indications and techniques of delivery of craniospinal radiation.
- List acute and long term toxicities associated with treatment of these diseases.
- Demonstrate knowledge of important studies and supportive literature regarding treatment for patients with pediatric brain tumors.

2. Systems Based Practice

- Perform appropriate workup for pediatric brain tumor patient.
- Provide multidisciplinary approach to curative and palliative treatment for pediatric brain tumors including surgery, chemotherapy, and radiation.
- Design and deliver conformal radiation therapy for pediatric brain tumor patients.

3. Professionalism

- Perform history and physical exam for pediatric brain tumor patients.
- Coordinate multidisciplinary approach to curative and palliative treatment for pediatric brain tumors including surgery, chemotherapy, and radiation

4. Interpersonal Skills and Communication

- Perform history and physical exam including appropriate documentation of patients for pediatric brain tumor patient.
- Coordinate multidisciplinary approach to curative and palliative treatment for pediatric brain tumors including surgery, chemotherapy, and radiation.
- Design and deliver conformal radiation therapy for pediatric brain tumor patients.

5. Patient Care and Procedural Skills

- Perform history and physical exam including appropriate documentation for pediatric brain tumor patient.
- Perform appropriate workup for pediatric brain tumor patients, including evaluation of endocrine function, neuro-psychologic evaluation and auditory function.
- Coordinate multidisciplinary approach to curative and palliative treatment for pediatric brain tumors including surgery, chemotherapy, and radiation
- Design and deliver conformal radiation therapy for pediatric brain patients.
- Deliver craniospinal radiation safely.

6. Practiced-Based Learning

- Describe the important elements and provide rationale of a history and physical as well as work-up for a patient with pediatric brain tumors.
- Discuss important studies and supportive literature regarding treatment for pediatric brain tumors.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring of clinical skills by faculty 1-6
- Faculty evaluation of treatment prescriptions and plans 1,5,6
- In-training exam 1,5,6
- Mock boards 1,5,6
- Chart stimulated recall 1,2,6
- Monitoring by nurses, therapists, & Program Coordinator 2-6

Objectives by year of training:

PGY2

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in pediatric brain tumor patients treated with radiotherapy

PGY4

- Explains the main treatment options
- Designs blocks, contours target(s), and contours normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)

- With supervision, manages patients with toxicities/symptoms seen in pediatric brain tumor patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Designs blocks, contours target(s), and contours normal tissues accurately; critically evaluates treatment plan options
- Independently manages toxicities/symptoms seen in pediatric brain tumor patients treated with radiotherapy

Pediatrics - Sarcomas:

Pediatric sarcomas generally include rhabdomyosarcoma, Ewing's sarcoma, and other soft tissue sarcomas.

1. Medical Knowledge

- Describe the important elements of a history and physical for pediatric sarcomas
- Explain appropriate staging and workup for pediatric sarcomas.
- List acute and long term toxicities associated with treatment of these diseases.
- Demonstrate knowledge of important studies and supportive literature regarding treatment for patients with pediatric sarcomas.

2. Systems Based Practice

- Perform appropriate workup for pediatric sarcomas.
- Provide multidisciplinary approach to curative and palliative treatment for pediatric sarcomas including surgery, chemotherapy, and radiation.
- Design and deliver conformal radiation therapy for pediatric sarcomas.

3. Professionalism

- Perform history and physical exam for pediatric sarcomas.
- Coordinate multidisciplinary approach to curative and palliative treatment for pediatric sarcomas including surgery, chemotherapy, and radiation

4. Interpersonal Skills and Communication

- Perform history and physical exam including appropriate documentation of patients with pediatric sarcoma.
- Coordinate multidisciplinary approach to curative and palliative treatment for pediatric sarcomas including surgery, chemotherapy, and radiation.
- Design and deliver conformal radiation therapy for pediatric sarcomas.

5. Patient Care and Procedural Skills

- Perform history and physical exam including appropriate documentation for pediatric sarcoma patients.
- Perform appropriate workup for pediatric sarcoma patients.
- Coordinate multidisciplinary approach to curative and palliative treatment for pediatric sarcomas including surgery, chemotherapy, and radiation
- Design and deliver conformal radiation therapy for pediatric sarcomas.

6. Practiced-Based Learning

- Describe the important elements and provide rationale of a history and physical as well as work-up for a patient with pediatric sarcomas.
- Discuss important studies and supportive literature regarding treatment for pediatric sarcomas.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Mock boards 1,5,6
- Chart stimulated recall 1,2,6
- Monitoring by nurses, therapists, & Program Coordinator 2-6

Objectives by year of training:

PGY2

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in pediatric sarcoma patients treated with radiotherapy

PGY4

- Explains the main treatment options
- Designs blocks, contours target(s), and contours normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)
- With supervision, manages patients with toxicities/symptoms seen in pediatric sarcoma patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Designs blocks, contours target(s), and contours normal tissues accurately; critically evaluates treatment plan options
- Independently manages toxicities/symptoms seen in pediatric sarcoma patients treated with radiotherapy

Pediatric - Wilms' Tumor

1. Medical Knowledge

- Describe the important elements of a history and physical for patients with pediatric Wilms' tumor cancers
- List appropriate staging for these patients as well as the tests needed for workup of their cancers
- Demonstrate knowledge of important studies and supportive literature regarding treatment for patients with pediatric Wilms' tumor malignancies.

2. Systems Based Practice

- Order appropriate tests needed for the workup of pediatric Wilms' tumor malignancies
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion, including brachytherapy.

3. Professionalism

- Perform a history and physical exam for patients with pediatric Wilms' tumor cancers
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.

4. Interpersonal Skills and Communication

- Perform a history and physical exam for patients with pediatric Wilms' tumor cancers
- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.

5. Patient Care and Procedural Skills

- Perform a history and physical exam for patients with pediatric Wilms' tumor cancers
- Order appropriate tests needed for the workup of genitourinary malignancies
- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion, including brachytherapy.

6. Practiced-Based Learning

- a. List appropriate staging for these patients as well as the tests needed for workup of their cancers
- b. Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy using latest evidence and clinical data.
- c. Design and deliver radiation therapy in a conformal fashion, including brachytherapy based on current literature.
- d. Site supportive literature regarding recommendations for treatment.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Structured Clinical Encounters (STAR center) 1-6
- Mock boards 1,5,6
- Monitoring by nurses, therapists and Program Coordinator 2-6
- Chart stimulated recall 1,2,6

Objectives by year of training:**PGY2**

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in pediatric Wilms' tumor patients treated with radiotherapy

PGY4

- Explains the main treatment options
- Designs blocks, contours target(s), and contours normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)
- With supervision, manages patients with toxicities/symptoms seen in pediatric Wilms' tumor patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Designs blocks, contours target(s), and contours normal tissues accurately; critically evaluates treatment plan options
- Independently manages toxicities/symptoms seen in pediatric Wilms' tumor patients treated with radiotherapy

Pediatric - Lymphoma:**1. Medical Knowledge**

- Describe the important elements of a history and physical for patients with pediatric lymphoma
- List appropriate staging for these patients as well as the tests needed for workup of their cancers

- Demonstrate knowledge of important studies and supportive literature regarding treatment for patients with GU malignancies.
- 2. Systems Based Practice**
- Order appropriate tests needed for the workup of pediatric malignant lymphoma malignancies
 - Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
 - Design and deliver radiation therapy in a conformal fashion.
- 3. Professionalism**
- Perform a history and physical exam for patients with pediatric lymphoma
 - Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- 4. Interpersonal Skills and Communication**
- Perform a history and physical exam for patients with pediatric lymphomas
 - Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
 - Design and deliver radiation therapy in a conformal fashion
- 5. Patient Care and Procedural Skills**
- Perform a history and physical exam for patients with malignant lymphoma
 - Order appropriate tests needed for the workup of pediatric lymphoma
 - Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
 - Design and deliver radiation therapy in a conformal fashion
- 6. Practiced-Based Learning**
- e. List appropriate staging for these patients as well as the tests needed for workup of their cancers
 - f. Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy using latest evidence and clinical data.
 - g. Design and deliver radiation therapy in a conformal fashion, based on current literature.
 - h. Site supportive literature regarding recommendations for treatment.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Structured Clinical Encounters (STAR center) 1-6
- Mock boards 1,5,6
- Monitoring by nurses, therapists and Program Coordinator 2-6
- Chart stimulated recall 1,2,6

Objectives by year of training:**PGY2**

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in pediatric lymphoma patients treated with radiotherapy

PGY4

- Explains the main treatment options
- Designs blocks, contours target(s), and contours normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)
- With supervision, manages patients with toxicities/symptoms seen in pediatric malignant lymphoma patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Designs blocks, contours target(s), and contours normal tissues accurately; critically evaluates treatment plan options
- Independently manages toxicities/symptoms seen in pediatric malignant lymphoma patients treated with radiotherapy

Pediatric - Total Body Irradiation:

Total body irradiation (TBI) for stem cell transplant both for malignant and non-malignant disease as well as the use of radiation in conjunction with stem cell transplant for malignant disease will be covered. The common diseases that would be treated would be leukemias, both acute and chronic, lymphomas, both Hodgkin's disease and non-Hodgkin's disease, Ewing's sarcoma, and non-malignant diseases such as aplastic anemia.

1. Medical Knowledge

- Describe the important elements of a history and physical for patients with pediatric TBI cancers
- List appropriate staging for these patients as well as the tests needed for workup of their cancers
- Demonstrate knowledge of important studies and supportive literature regarding treatment for patients with pediatric TBI malignancies.

2. Systems Based Practice

- Order appropriate tests needed for the workup of pediatric TBI malignancies
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion

3. Professionalism

- Perform a history and physical exam for patients with pediatric TBI cancers
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.

4. Interpersonal Skills and Communication

- Perform a history and physical exam for patients with pediatric TBI cancers
- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion

5. Patient Care and Procedural Skills

- Perform a history and physical exam for patients with pediatric TBI cancers
- Order appropriate tests needed for the workup of pediatric TBI malignancies
- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion

6. Practiced-Based Learning

- List appropriate staging for these patients as well as the tests needed for workup of their cancers
- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy using latest evidence and clinical data.
- Design and deliver radiation therapy in a conformal fashion based on current literature.
- Site supportive literature regarding recommendations for treatment.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Structured Clinical Encounters (STAR center) 1-6
- Mock boards 1,5,6
- Monitoring by nurses, therapists and Program Coordinator 2-6
- Chart stimulated recall 1,2,6

Objectives by year of training:

PGY2

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy

- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in pediatric TBI patients treated with radiotherapy

PGY4

- Explains the main treatment options
- Designs blocks, contours target(s), and contours normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)
- With supervision, manages patients with toxicities/symptoms seen in pediatric TBI patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Designs blocks, contours target(s), and contours normal tissues accurately; critically evaluates treatment plan options
- Independently manages toxicities/symptoms seen in pediatric TBI patients treated with radiotherapy

H. Breast Cancer (Drs. Currey and Kelly)

1. Medical Knowledge

- Describe the important elements of a history and physical for patients with breast cancers
- List appropriate staging for these patients as well as the tests needed for workup of their cancers
- Demonstrate knowledge of important studies and supportive literature regarding treatment for patients with breast malignancies.

2. Systems Based Practice

- Order appropriate tests needed for the workup of breast malignancies
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion, including brachytherapy.

3. Professionalism

- Perform a history and physical exam for patients with breast cancers

- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.

4. Interpersonal Skills and Communication

- Perform a history and physical exam for patients with breast cancers
- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion, including brachytherapy.

5. Patient Care and Procedural Skills

- Perform a history and physical exam for patients with breast cancers
- Order appropriate tests needed for the workup of breast malignancies
- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion, including brachytherapy.

6. Practiced-Based Learning

- a. List appropriate staging for these patients as well as the tests needed for workup of their cancers
- b. Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy using latest evidence and clinical data.
- c. Design and deliver radiation therapy in a conformal fashion, including brachytherapy based on current literature.
- d. Site supportive literature regarding recommendations for treatment.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Structured Clinical Encounters (STAR center) 1-6
- Mock boards 1,5,6
- Monitoring by nurses, therapists and Program Coordinator 2-6
- Chart stimulated recall 1,2,6

Objectives by year of training:

PGY2

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in breast patients treated with radiotherapy

PGY4

- Explains the main treatment options
- Contours target(s) and normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)
- With supervision, manages patients with toxicities/symptoms seen in breast patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Contours normal tissue and target(s) accurately; critically evaluates treatment plan options Independently manages toxicities/symptoms seen in breast patients treated with radiotherapy

I. Skin Cancer (Drs. Awan, Currey, Schultz and Shukla)

1. Medical Knowledge

- Describe the important elements of a history and physical for patients with skin cancers. These include the various presentations and natural history of basal cell carcinoma, squamous cell carcinoma, and melanoma as well as occasional less common neoplasms including Merkel cell carcinoma
- List appropriate staging for these patients as well as the tests needed for workup of their cancers
- Demonstrate knowledge of important studies and supportive literature regarding treatment for patients with skin malignancies

2. Systems Based Practice

- Order appropriate tests needed for the workup of skin malignancies
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion

3. Professionalism

- Perform a history and physical exam for patients with skin cancers
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.

4. Interpersonal Skills and Communication

- Perform a history and physical exam for patients with skin cancers
- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.

- Design and deliver radiation therapy in a conformal fashion

5. Patient Care and Procedural Skills

- Perform a history and physical exam for patients with skin cancers
- Order appropriate tests needed for the workup of breast malignancies
- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion

6. Practiced-Based Learning

- e. List appropriate staging for these patients as well as the tests needed for workup of their cancers
- f. Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy using latest evidence and clinical data.
- g. Design and deliver radiation therapy in a conformal fashion based on current literature.
- h. Site supportive literature regarding recommendations for treatment.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Structured Clinical Encounters (STAR center) 1-6
- Mock boards 1,5,6
- Monitoring by nurses, therapists and Dr. Lawton's assistant 2-6
- Chart stimulated recall 1,2,6

Objectives by year of training:

PGY2

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in skin patients treated with radiotherapy

PGY4

- Explains the main treatment options
- Designs blocks, contours target(s), and contours normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)

- With supervision, manages patients with toxicities/symptoms seen in skin patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Designs blocks, contours target(s), and contours normal tissues accurately; critically evaluates treatment plan options
- Independently manages toxicities/symptoms seen in skin patients treated with radiotherapy

J. Gynecological Malignancies (Drs. Bedi, Small, and Erickson)

1. Medical Knowledge

- Describe the important elements of a history and physical for patients with gynecologic cancers including cancers of the cervix, endometrium, vagina, vulva, urethra and ovary
- List appropriate staging for these patients as well as the tests needed for workup of their cancers
- Demonstrate knowledge of important studies and supportive literature regarding treatment for patients with gynecological malignancies.

2. Systems Based Practice

- Order appropriate tests needed for the workup of gynecological malignancies
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion, including brachytherapy.

3. Professionalism

- Perform a history and physical exam for patients with gynecological cancers
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.

4. Interpersonal Skills and Communication

- Perform a history and physical exam for patients with gynecological cancers
- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion, including brachytherapy.

5. Patient Care and Procedural Skills

- Perform a history and physical exam for patients with gynecological cancers
- Order appropriate tests needed for the workup of gynecological malignancies

- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion, including brachytherapy.

6. Practiced-Based Learning

- a. List appropriate staging for these patients as well as the tests needed for workup of their cancers
- b. Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy using latest evidence and clinical data.
- c. Design and deliver radiation therapy in a conformal fashion, including brachytherapy based on current literature.
- d. Site supportive literature regarding recommendations for treatment.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Structured Clinical Encounters (STAR center) 1-6
- Mock boards 1,5,6
- Monitoring by nurses, therapists and Program Coordinator 2-6
- Chart stimulated recall 1,2,6

Objectives by year of training:

PGY2

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions
- Observes patients undergoing brachytherapy

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Selects appropriate patients for brachytherapy procedures and understands relevant radiation safety protocols and procedures
- Recognizes toxicities/symptoms seen in gynecological cancer patients treated with radiotherapy

PGY4

- Explains the main treatment options which may include observation or radiation
- Contours target(s) and normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)
- Plans and performs brachytherapy with minimal faculty member assistance

- With supervision, manages patients with toxicities/symptoms seen in these patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Describes details of radiation therapy; cites evidence-based practice guidelines or institutional standards
- Contours normal tissue and target(s) accurately; critically evaluates treatment plan options
- Is able to independently plan and perform brachytherapy appropriately
- Independently manages toxicities/symptoms seen in Gyn patients treated with radiotherapy

K. Gastrointestinal and Hepatobiliary Malignancies (Drs. Erickson, Hall and Straza)

1. Medical Knowledge

- Describe the important elements of a history and physical for patients with GI cancers, including malignancies of the stomach, small bowel, colon, rectum, anus, liver, bile ducts, gall bladder and pancreas.
- List appropriate staging for these patients as well as the tests needed for workup of their cancers
- Demonstrate knowledge of important studies and supportive literature regarding treatment for patients with GI malignancies.

2. Systems Based Practice

- Order appropriate tests needed for the workup of GI malignancies
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion

3. Professionalism

- Perform a history and physical exam for patients with GI cancers
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.

4. Interpersonal Skills and Communication

- Perform a history and physical exam for patients with GI cancers
- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion

5. Patient Care and Procedural Skills

- Perform a history and physical exam for patients with GI cancers
- Order appropriate tests needed for the workup of GI malignancies

- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion

6. Practiced-Based Learning

- a. List appropriate staging for these patients as well as the tests needed for workup of their cancers
- b. Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy using latest evidence and clinical data.
- c. Design and deliver radiation therapy in a conformal fashion, including brachytherapy based on current literature.
- d. Site supportive literature regarding recommendations for treatment.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Structured Clinical Encounters (STAR center) 1-6
- Mock boards 1,5,6
- Monitoring by nurses, therapists and Program Coordinator 2-6
- Chart stimulated recall 1,2,6

Objectives by year of training:

PGY2

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in GI cancer patients treated with radiotherapy

PGY4

- Explains the main treatment options
- Contours target(s)/normal tissues and delineates field borders with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)
- With supervision, manages patients with toxicities/symptoms seen in GI patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Contours target(s)/normal tissues and delineates field borders accurately; critically evaluates treatment plan options
- Independently manages toxicities/symptoms seen in GI patients treated with radiotherapy

L. Orbital/Ocular Malignancies (Dr. Erickson)

1. Medical Knowledge

- Describe the important elements of a history and physical for patients with orbital/ocular malignancies. These include ocular melanoma, orbital and ocular lymphoma, graves ophthalmopathy and pterygium
- List appropriate staging for these patients as well as the tests needed for workup of their cancers
- Demonstrate knowledge of important studies and supportive literature regarding treatment for patients with orbital/ocular malignancies.

2. Systems Based Practice

- Order appropriate tests needed for the workup of orbital/ocular malignancies
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion, including brachytherapy.

3. Professionalism

- Perform a history and physical exam for patients with orbital/ocular malignancies
- Design and implement a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.

4. Interpersonal Skills and Communication

- Perform a history and physical exam for patients with orbital/ocular malignancies
- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.
- Design and deliver radiation therapy in a conformal fashion, including brachytherapy.

5. Patient Care and Procedural Skills

- Perform a history and physical exam for patients with orbital/ocular malignancies
- Order appropriate tests needed for the workup of orbital/ocular malignancies
- Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy.

- Design and deliver radiation therapy in a conformal fashion, including brachytherapy.

6. Practiced-Based Learning

- a. List appropriate staging for these patients as well as the tests needed for workup of their cancers
- b. Coordinate a multi-disciplinary approach to treatment for these malignancies including surgery, chemotherapy, as well as radiation therapy using latest evidence and clinical data.
- c. Design and deliver radiation therapy in a conformal fashion, including brachytherapy based on current literature.
- d. Site supportive literature regarding recommendations for treatment.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Structured Clinical Encounters (STAR center) 1-6
- Mock boards 1,5,6
- Monitoring by nurses, therapists and Program Coordinator 2-6
- Chart stimulated recall 1,2,6

Objectives by year of training:

PGY2

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in orbital/ocular patients treated with radiotherapy

PGY4

- Explains the main treatment options
- Designs blocks, contours target(s), and contours normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)
- With supervision, manages patients with toxicities/symptoms seen in orbital/ocular patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Designs blocks, contours target(s), and contours normal tissues accurately; critically evaluates treatment plan options
- Independently manages toxicities/symptoms seen in orbital/ocular patients treated with radiotherapy

M. Thoracic Malignancies (Drs. Gore, Longo, Puckett and Shukla)

1. Medical Knowledge

- Describe the important elements of a history and physical examination for patients with thoracic malignancies
- Describe key elements of TNM stages for all thoracic malignancies and details of TNM staging for lung cancer.
- Demonstrate knowledge of key studies supporting standard of care for thoracic malignancies.
- Demonstrate knowledge of controversial topics in the management of thoracic malignancies.
- Describe indications for definitive and palliative radiation in the treatment of thoracic malignancies.
- Describe various palliative fractionation schedules and the appropriate indications for each
- Demonstrate knowledge of indications for radiosurgery and ability to deliver radiosurgery safely and effectively.

2. Systems Based Practice

- Order appropriate tests needed for the workup of thoracic malignancies
- Design and implement a multi-disciplinary approach to treatment for thoracic malignancies including surgery, chemotherapy, targeted therapy, and radiation therapy.
- Design and deliver radiation therapy in the context of multidisciplinary care.
- Provide supportive care for patients undergoing therapy for thoracic malignancies
- Be mindful of the cost effectiveness of different imaging and laboratory tests and the appropriate indications for use.

3. Professionalism

- Perform a history and physical exam for patients with thoracic malignancies
- Develop multi-disciplinary management plans including active treatment and follow up with interdisciplinary team members
- Establish rapport with patients during consults, follow-ups and on treatment visits.
- Work in a collaborative manner with physicians and other professional staff.

4. Interpersonal Skills and Communication

- Perform a history and physical exam for patients with thoracic
- Participate in education of patients and families

- Coordinate a multi-disciplinary management including presenting and discussing cases at multidisciplinary tumor conferences.
- Be able to communicate treatment plans and interventions clearly with patients at their level of understanding.
- Be able to have frank but kind discussions with regard to giving bad or unexpected news.

5. Patient Care and Procedural Skills

- Perform a history and physical exam for patients with thoracic cancers
- Order appropriate tests needed for the workup of thoracic malignancies
- Identify and manage acute and late side effects of radiation therapy for thoracic.
- Design appropriate radiation therapy plans including contouring normal tissues and tumor volumes, including for cases treated with radiosurgery.
- Demonstrate ability to properly evaluate a radiation therapy plan
- Understand the various immobilization devices and appropriate set-up of patients with thoracic malignancies.

6. Practiced-Based Learning

- Identify strengths, deficiencies and limits to knowledge
- Set self learning and improvement goals
- Participate in education of patients', families and other health professionals
- Site supportive literature regarding recommendations for treatment.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Structured Clinical Encounters (STAR center) 1-6
- Mock boards 1,5,6
- Monitoring by nurses, therapists and Program Coordinator 2-6
- Chart stimulated recall 1,2,6

Objectives by year of training:

PGY2

- Acquires accurate and relevant history and performs a general physical examination
- Identifies relevant anatomy
- Recognizes situations with a need for urgent or emergent medical care, including life-threatening conditions

PGY3

- Performs a detailed and directed history and physical examination; integrates pathology and imaging reports; accurately stages a patient and designates prognostic factors
- Lists organs at risk; understands proper patient positioning and immobilization
- Recognizes toxicities/symptoms seen in thoracic patients treated with radiotherapy

PGY4

- Explains the main treatment options
- Designs blocks, contours target(s), and contours normal tissue with minimal inaccuracies; states appropriate dose planning objectives for normal tissues and target(s)
- With supervision, manages patients with toxicities/symptoms seen in thoracic patients treated with radiotherapy

PGY5

- Makes a comprehensive treatment recommendation that is appropriate; describes evidence that supports the treatment plan
- Designs blocks, contours target(s), and contours normal tissues accurately; critically evaluates treatment plan options
- Independently manages toxicities/symptoms seen in thoracic patients treated with radiotherapy

IV. Goals and Objectives for Rotation at Zablocki VA

- A. Please see Goals and Objectives as above for Entire Training Program, Thoracic Malignancies, Head and Neck Cancer, Gastrointestinal/Hepatobiliary Malignancies, and Genitourinary cancers. These are the disease sites that are commonly treated at the VA. Rotations at the VA provide the residents exposure to a different patient population than those at Froedtert Hospital. Often times, these patients can have more advanced disease at presentation, and have challenging socioeconomic circumstances such as living a large distance from the treatment facility and at times, limited psychosocial support systems. The VA serves as an “integrated site” as defined by the ACGME common program requirements.
- B. Goals and Objectives Specific to the VA rotation
- 1. Systems Based Practice**
 - Coordinate care for patients who have needs unique to the VA system
 - Discuss how socioeconomic factors can influence care and treatment outcomes for cancer patients
 - 2. Professionalism**
 - Design and implement a multi-disciplinary approach to treatment of VA patients including surgery, chemotherapy, as well as radiation therapy.
 - 3. Interpersonal Skills and Communication**
 - Coordinate a multi-disciplinary approach to treatment of VA patients including surgery, chemotherapy, as well as radiation therapy.
 - Demonstrate the ability to coordinate care of VA patients through participation of multidisciplinary tumor board
 - 4. Patient Care and Procedural Skills**
 - Coordinate a multi-disciplinary approach to treatment of VA patients including surgery, chemotherapy, as well as radiation therapy.

- Design and deliver radiation therapy in a conformal fashion for patients with more advanced disease presentations such as is common in VA patients

5. **Practiced-Based Learning**

- Coordinate a multi-disciplinary approach to treatment for VA patients including surgery, chemotherapy, as well as radiation therapy using latest evidence and clinical data.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Structured Clinical Encounters (STAR center) 1-6
- Mock boards 1,5,6
- Monitoring by nurses, therapists and Dr. Lawton's assistant 2-6
- Chart stimulated recall 1,2,6

V. **Goals and Objectives for Rotation at Froedtert – Menomonee Falls (FMF)**

A. Please see Goals and Objectives as above for Entire Training Program, Thoracic Malignancies, Head and Neck Cancer, Gastrointestinal/Hepatobiliary Malignancies, Breast cancer and Genitourinary cancers. These are the disease sites that are commonly treated at FMF. From the FMF rotation, residents will gain experience treating patients in the private practice setting. The patient population and diseases treated at this site is typical of a private radiation oncology practice. While supervising radiation oncology faculty also have academic positions within the Medical College of Wisconsin, most of the patient referrals come from private practice physicians. This experience is different from the experience provided at the large academic medical center that serves as the primary training site. FMF serves as an “integrated site” as defined by the ACGME common program requirements.

B. Goals and Objectives Specific to the FMF rotation

1. **Systems Based Practice**

- Coordinate care for patients who have needs unique to community based health system

2. **Professionalism**

- Design and implement a multi-disciplinary approach to treatment of patients in a private practice setting including surgery, chemotherapy, as well as radiation therapy.

3. **Interpersonal Skills and Communication**

- Coordinate a multi-disciplinary approach to treatment of patients in a private practice setting including surgery, chemotherapy, as well as radiation therapy.

4. **Patient Care**

- Coordinate a multi-disciplinary approach to treatment of patients in a private practice setting including surgery, chemotherapy, as well as radiation therapy.

5. Practiced-Based Learning

- Coordinate a multi-disciplinary approach to treatment for patients in a private practice setting including surgery, chemotherapy, as well as radiation therapy using latest evidence and clinical data.

Evaluation process: *Competencies Evaluated listed on page 5

- Daily monitoring by faculty 1-6
- In-training exam 1,5,6
- Structured Clinical Encounters (STAR center) 1-6
- Mock boards 1,5,6
- Monitoring by nurses, therapists and Dr. Lawton's assistant 2-6
- Chart stimulated recall 1,2,6

VI. Goals and Objectives for Physics Rotation

The purpose of this rotation is to familiarize the PGY-3 resident on physics/dosimetry concepts and operation.

A. Medical Knowledge

- Describe how the reference dose rate is calibrated for photons and electrons
- Describe PDD, TMR, and how they are measured
- Describe collimator scatter factor and phantom scatter factor
- Perform MU calculations with SAD setup, SSD setup, electrons, including use of inverse-square law
- Describe the role of beam modifiers (e.g., MLC, wedges, block, bolus, compensator)
- Perform hand calculation of Clarkson integration for irregular fields
- Explain how a DVH is generated

B. Systems Based Practice.

- Design and deliver radiation therapy in a conformal fashion, including brachytherapy from the standpoint of the physicist and dosimetrist

C. Professionalism

- Design and deliver radiation therapy in a conformal fashion, including brachytherapy from the standpoint of the physicist and dosimetrist

D. Interpersonal Skills and Communication

- Design and deliver radiation therapy in a conformal fashion, including brachytherapy from the standpoint of the physicist and dosimetrist

E. Patient Care and Procedural Skills

- Generate 3D treatment plan for prostate, lung, breast, head and neck and CNS case.
- Generate IMRT plans for prostate and head and neck case

F. Practiced-Based Learning

- Describe what constitutes the linac daily and monthly QA
- Describe what constitutes brachytherapy QA

The resident will work with the following physicists in the specified areas.

Physics Rotation Director (Currently Phil Prior):

- Coordinating rotation contents and schedule
- The resident may participate in a physics related research project. The objectives of the project will be defined individually.
- Progress evaluation (daily monitoring, in-training exam, mock board)
- External beam forward treatment planning. The resident will gain hands-on experience on all aspects of using Monaco planning systems.
- Hand calculation of MU#
- IMRT planning. The resident will gain hands-on experience
- IMRT patient QA. The resident will participate in at least one case on the measurement of IMRT dose distribution.

Gamma Knife Physicist (Currently George Noid)

- Gamma Knife planning and delivery. The resident will participate in at least one case.

Brachytherapy Physicist (Currently Jason Rownd):

- HDR brachytherapy planning, The resident will participate in at least one case on breast and one case on Gyn.
- HDR machine QA
- LDR brachytherapy. The resident will participate in planning at least one case.

Other physicists

- Linac daily and monthly QA. The resident will participate in at least one daily QA and one monthly QA.
- Linac absolute dose calibration. The resident will participate in one TG-51 calibration

Evaluation Process: *Competencies Evaluated listed on page 5

- A narrative summary of the resident's experience and a written evaluation will be done and sent to Program Leadership by Physics Rotation Director. 1,3,4,5,6

VII. Goals and Objectives for Pathology Rotation

The purpose of the pathology rotation is to familiarize the resident with all aspects of oncologic pathology. This will be accomplished by a one-month rotation in pathology where the resident will see and review oncologic pathology specimens with the appropriate pathology staff.

A. Medical Knowledge

- Describe how a surgical specimen is processed from the time it is removed from the patient until it is read by the pathologist

B. Systems Based Practice.

- Discuss the limitations of analysis by a pathologist and how that might affect treatment decisions

C. Professionalism

- Design and deliver radiation therapy in a conformal fashion, including brachytherapy from the standpoint of the physicist and dosimetrist

D. Interpersonal Skills and Communication

- Communicate with pathologist about interpretation of a surgical or biopsy specimen.

Evaluation Process: *Competencies Evaluated listed on page 5

- Daily monitoring by supervising faculty 1-6
- In-training exam 1,5,6
- Mock oral exam 1,5,6
- Chart stimulated recall 1,2,6

Below is a suggested list of things the residents should try to see while on the Pathology rotation. Obviously the ability to see all of these will be affected by availability of cases.

Breast

- Go with the pathologists to watch a frozen section on a sentinel lymph node biopsy
- Watch the resident/tech 'gross in' a lumpectomy specimen
- Watch the resident/tech 'gross in' an axillary lymph node dissection specimen
- Watch the resident/tech 'gross in' a mastectomy specimen
- Review slides on breast biopsies – try to see both DCIS and invasive
- Review slides on a lumpectomy specimen
- Review slides on an axillary lymph node dissection specimen
- Review slides on a mastectomy specimen

CNS

- Go with the staff pathologist to do brain slicing on autopsy specimens
- Review slides of biopsies/surgeries

Head and Neck

- Review biopsies
- See surgical specimens grossed in (eg. Laryngectomy)

Gastrointestinal

- See a rectal specimen grossed in – understand the difference between TME and blunt dissection
- Review biopsy specimens
- Review slides on surgical cases (Pancreaticoduodenectomy, esophagectomy, or whatever else is available)

Skin

- Review biopsy specimens with the dermatopathologists – could be with either dermatology department or pathology department

Genitourinary

- Watch the resident/tech ‘gross in’ a prostatectomy specimen
- Review slides on a prostatectomy specimen
- Review slides on prostate needle biopsies
- Gross in specimens and review slides on other cases as available (orchiectomy, TURBT, cystectomy, nephrectomy, etc.)

Gynecologic

- Watch the resident/tech ‘gross in’ a TAH/BSO specimen on an endometrial cancer case
- Watch the resident/tech ‘gross in’ a pelvic lymphadenectomy case
- Review slides on a TAH/BSO with lymph node dissection case for endometrial cancer
- Review pap smears
- Review endometrial biopsies
- Gross in specimens and review slides on other cases as available (Radical hysterectomy for cervix cancer, ovarian cancer, vulvectomy, etc.)

Lymphoreticular

- Review lymph node biopsy with IHC stains with hematopathologist
- Review peripheral smears with hematopathologist
- Review bone marrow biopsies with hematopathologist

Pediatrics

- Spend a morning at Children’s pathology department, see whatever cases you can. Talk to the pathology residents to arrange this

Thorax

- Review biopsy slides
- Review cytology slides from FNA/brushings/brochoalveolar lavage
- Gross in a wedge resection/lobectomy/pneumonectomy as available

VIII. Goals and Objectives for Radiology Rotation

The purpose of the diagnostic radiology rotation is to familiarize the resident with all aspects of oncologic imaging. This will be accomplished by a one-month rotation in diagnostic radiology where the resident will see and review oncologic imaging with the appropriate diagnostic radiologist.

A. Medical Knowledge

- Describe diagnostic tests used in evaluation and work-up of a cancer patient
- Describe the possible risks to patients who undergo diagnostic tests
- Demonstrate knowledge of cross-sectional anatomy by being able to identify areas of malignancy, lymph node regions, and normal organs on CT and MRI scans.

B. Systems Based Practice.

- Discuss the limitations of diagnostic tests such as CT, PET and MR
- Describe the role of the radiologist in interpreting diagnostic studies

C. Patient Care and Procedural Skills

- Describe proper utilization of imaging modalities in diagnosis and intervention

D. Interpersonal Skills and Communication

- Improve ability to communicate with a radiology colleagues about test results and their limitations

Evaluation Process: *Competencies Evaluated listed on page 5

- Daily monitoring by supervising faculty 1-6
- In-training exam 1,5,6
- Mock oral exam 1,5,6
- Chart stimulated recall 1,2,6

Below is a suggested list of things the residents should try to see while on the radiology rotation. Obviously the ability to see all of these will be affected by availability of cases

General Radiology:

- Reviewing plain films of the chest and extremities for a handful of days as these images play a lesser role for radiation oncology.
- A significant amount of time should be spent on Body and chest imaging. The resident should notify the radiology staff that they are rotating and that they would like to see any case with potential malignancy.
- Try to spend some time in with the radiation technologists understanding how patients are prepped, set-up and images are obtained.
- MRI – make special effort to review prostate MRI, abdominal MRI and pelvic MRI for rectal and pelvic malignancies.
- Ultrasound: One day should be adequate as most studies are not for malignancy.

Nuclear Medicine:

- Special attention should be given to observing PET and Bone scans.
- Understand coordination of injections, injection materials, image acquisition.
- The majority of the time should be spent on interpretation.

Biopsy:

- Try to observe CT and US guided biopsies.
- US guided paracentesis and throacentesis

Neuroradiology/Head and Neck:

- This is an excellent opportunity to gain better understanding of head and neck as well as skull base anatomy. Consider reviewing the RTOG head and neck atlas as well as AJCC staging to work towards better understanding of axial anatomy as it applies to radiation oncology.
- A significant amount of time can be spent on PET as it relates to head and neck cancer.
- A significant amount of time should be spent on neuroanatomy as well as interpretation of MRI as it applies to CNS pathology. Both spine and brain.

Breast Imaging/Intervention

- Mammography
- Ultrasound
- MRI

Observe breast and node biopsy both US guided and MRI guidance

Evaluation Process: *Competencies Evaluated listed on page 5

- Daily monitoring by supervising faculty 1-6
- In-training exam 1,5,6
- Mock oral exam 1,5,6
- Chart stimulated recall 1,2,6

IX. Goals and Objectives for Adult Medical Oncology Rotation

The purpose of the medical oncology rotation is to familiarize the resident with all aspects of medical oncology. This will be accomplished by a one month rotation in medical oncology done at either Froedtert Memorial Lutheran Hospital or at the VA where the resident will see, evaluate, and treat oncologic patients with the appropriate medical oncology faculty. This rotation will take place in in outpatient clinics and with inpatient consultations.

A. Medical Knowledge

- Perform a history and physical exam appropriate for patients who are to receive chemotherapy
- Discuss general chemotherapy regimens and toxicities for common adult malignancies such as breast or lung cancer

B. Systems Based Practice.

- Discuss the challenges to medical oncology care within different health care plans such as medicaid and third party payers

C. Professionalism

- Interact effectively as a member of the multi-disciplinary oncology team.
- Interact appropriately with patients and families being treated for cancer

D. Interpersonal Skills and Communication

- Work successfully as a member of the multi-disciplinary medical oncology team

E. Patient Care and Procedural Skills

- Perform a history and physical exam appropriate for medical oncology patients
- Discuss general chemotherapy regimens and toxicities appropriate for common adult malignancies such as breast and lung cancer

F. Practiced-Based Learning

- Use the literature as support for treatment plans for common cancers.

Evaluation Process: *Competencies Evaluated listed on page 5

- Daily monitoring by supervising faculty 1-6
- In-training exam 1,5,6
- Mock oral exam 1,5,6
- Chart stimulated recall 1,2,6

X. Goals and Objectives for Research Rotation

Research electives are only available to PGY 4 and PGY 5 residents (unless the resident is on the Holman Pathway). Goals and Objectives for the Research Elective are the same for both PGY 4 and PGY 5 year. Over the course of residency, residents will have 3 months of protected research time with more available upon request. This dependent upon demonstration of clinical competency and is at the discretion of the Program leadership.

A. Medical Knowledge

- Define a research proposal that is supported by a faculty member along with the timeline for completion and get approval from the Program Director
- Perform the research as outlined in the proposal once approved by the Program Director

B. Professionalism

- Define a research proposal that is supported by a faculty member along with the timeline for completion and get approval from the Program Director

C. Interpersonal Skills and Communication

- Presents results to the faculty and residents once the research rotation is complete

D. Practiced-Based Learning

- Define a research proposal that is supported by a faculty member along with the timeline for completion and get approval from the Program Director
- Present results to the faculty and residents once the research is complete
- Suggest ways to incorporate the research findings into clinical practice as appropriate

XI. Evaluation tools: (See Appendix A)

The following evaluation tools will be used to evaluate each resident regarding the goals and objectives. ***Competencies Covered**

1. Faculty evaluations 1-6
2. Annual residency review (mock boards) 1,5,6
3. Program director semi-annual evaluations 1-6
4. ACR In-training exam 1,5,6
5. Logs of procedures 5
6. Nursing evaluations 2-6

7. Therapists evaluations 2-6
8. Patient comments 2-6
9. Program Coordinator evaluations 2-6
10. Self evaluations 1-6
11. ACGME Radiation Oncology Milestones 1-6
12. Chart stimulated recall 1,2,6
13. Medical student evaluations 2-6

XII. Supervisory lines of responsibility

1. All patients are the primary responsibility of the supervising faculty.
2. During “on call” hours the “on call” faculty assumes responsibility for any patients who have questions or problems.
3. Residents must evaluate patients who are assigned to them by their supervising faculty.
4. Residents must discuss and get approval from their supervising faculty prior to treatment of any patient.
5. The level of expected patient evaluation and development of the treatment plan will increase with PG level.
6. During “on call” hours the “on call” resident must address all patient inquiries and discuss treatment decisions for any patient with the supervising “on call” faculty.
7. Medical students rotating through the department may participate in patient care as allowed by the supervising faculty.
8. ACGME Levels of Supervision
 - a. Direct Supervision – Most patient care during normal business hours takes place with supervising faculty present with the resident. Outside of normal business hours, the faculty member on call is required to provide direct supervision if a patient is starting a new course of radiation treatment.
 - b. Indirect Supervision with Direct Supervision Immediately Available – This may occur during normal business hours. One example might be a resident going to an inpatient unit to see a consult that they will then staff with the supervising physician.
 - c. Indirect Supervision with Direct Supervision Available – Much of the call responsibilities and patient care after normal business hours fall within this category. Residents may field patient questions by phone or even see a consult in the hospital. The faculty on call with the resident is available for questions and is required to then provide supervision if the patient is to start a new treatment course.
 - d. Oversight – This level of supervision does not occur.

***See section III for requirements of residents during the four years listed above.**

XIII. Introduction to Competency-Based Residency Education and Developing An Assessment System, Practical Implementation of the Competencies,

Evaluation of Residents, Faculty and Program

Residents will be evaluated frequently over the course of their residency in order to give feedback on areas of strength and areas needing improvement.

A. Evaluation Tools

Many tools are used to evaluate the residents over the course of their training, and these tools are listed in the preceding section.

B. Quarterly Review

Each resident will meet at least quarterly with the Program Director and Associate Program Director to review all results of the evaluation tools obtained in the previous quarter. Also review of case logs, research projects, and chart stimulated recall, duty hours, conference/course attendance and overall performance will be reviewed at these sessions.

C. ACGME Milestones

At least semi-annually, each resident will be evaluated by the Clinical Competency Committee (CCC) to determine adequate progress on the ACGME milestones. Residents will be made aware of the milestones at least annually at the new resident orientation.

The Clinical Competency Committee (CCC) will in large part be comprised of the members of the education committee with the exception of the chief residents. This will include the Program Director, Associate Program Director, the course director of the radiobiology and physics courses, and at least two members of the clinical faculty. The responsibilities of the CCC will include:

- (a) review all resident evaluations semi-annually;
- (b) prepare and assure the reporting of Milestones evaluations of each resident semi-annually to ACGME; and,
- (c) advise the program director regarding resident progress, including promotion, remediation, and dismissal.

Decisions of the CCC and the accompanying milestone assessment will be reviewed individually with each resident at the subsequent quarterly review.

D. Summative Evaluation of Graduating Residents

At the end of residency, the Program Director will complete a Summative Evaluation of graduating residents. This evaluation will:

- a) Use specialty-specific Milestones to ensure residents are able to practice core professional activities without supervision upon completion of the program.
- b) Become part of the resident's permanent record maintained by the institution, and must be accessible for review by the resident in accordance with institutional policy;
- c) Document the resident's performance during the final period of education; and,
- d) Allow the Program Director to verify that the resident has demonstrated sufficient competence to enter practice without supervision

Also upon graduation, departing residents are expected to compose a letter to the Program Evaluation Committee regarding strengths and weaknesses of the program.

E. Evaluation of Faculty

Each resident has the opportunity to evaluate their supervising faculty at the end of each rotation. These evaluations are anonymous and submitted electronically to a third party. Annually, these evaluations are compiled and distributed to faculty for review.

In addition, the program director will annually evaluate faculty performance as it relates to the educational program. These evaluations include a review of the faculty's clinical teaching abilities (based largely on resident feedback), commitment to the educational program, clinical knowledge, professionalism and scholarly activities. Factors used in this evaluation are resident evaluations, attendance at teaching conferences, interactions with residents, and research productivity. These evaluations are reviewed by the department Chairman.

F. Evaluation of the Residency Program

At least annually, both residents and faculty will review the performance of the residency program. Residents will also have the opportunity to review the Program Director directly. These evaluations are kept anonymous and data is compiled annually for review.

Annually, the Program Evaluation Committee (PEC) will meet to conduct a comprehensive review of the residency program. The PEC will generally consist of members of the departmental education committee. This will include the Program Director, Associate Program Director, the chief residents, the course director of the radiobiology and physics courses, and at least two members of the clinical faculty. The responsibilities of the PEC will include:

- (a) planning, developing, implementing, and evaluating educational activities of the program;
- (b) reviewing and making recommendations for revision of competency-based curriculum goals and objectives;
- (c) addressing areas of non-compliance with ACGME standards; and,
- (d) reviewing the program annually using evaluations of faculty, residents, and others, as specified below.
- (e) The program, through the PEC, must document formal, systematic evaluation of the curriculum at least annually, and is responsible for rendering a written and Annual Program Evaluation (APE). The APE will be reviewed and approved by the teaching faculty at faculty meeting.
- (f) The APE will report on the following
 - i. Resident performance including progress on the milestones, scholarly activity and passing of board exams if applicable
 - ii. Faculty development;
 - iii. Graduate performance, including performance of program graduates on the certification examination
 - iv. Program quality; and

- v. Take into account the confidential written evaluation of the program by residents and faculty. This evaluation will occur annually. These evaluations will be used for the program improvement plan.
- vi. Report on progress of the previous year's action and program improvement plan.
- vii. Document initiatives to improve performance in these measures and delineate how they are monitored.

(g) The PEC will prepare a written plan of action to document initiatives to improve performance in one of the areas listed above. This Program Improvement Plan will also delineate how these efforts will be measured, and progress will be monitored at the department education committee meetings and the subsequent meeting of the PEC.

XIV. Fringe Benefits

A. Stipend

Residents receive a stipend during all four years of residency training, assuming their contract is annually renewed. The amount of the stipend is determined by the Graduate Medical Education office of the Medical College of Wisconsin Affiliated Hospitals.

B. Vacation

Residents are entitled to vacation during all four years of training. Paid vacation is 15 days for each year is as follows:

Vacation leave must be approved by the staff physician to which the resident is assigned during the requested time off and by the Program Director. Forms for vacation time are available through the Program Coordinator. It is the resident's responsibility to obtain the necessary signatures indicating approval. Senior residents are strongly encouraged to bear in mind the necessity of reserving vacation time for job seeking.

Because residents are granted a greater level of autonomy at the VA, one resident must be at the VA at all times (i.e. both residents assigned to VA cannot be on vacation at the same time). Exceptions to this may be granted on a case-by-case basis by the program director.

Vacation is not cumulative from year to year. Please also see ABR requirements (Appendix B) regarding time away from training.

C. Sick Leave

Sick leave is accrued at a rate of 10 calendar days per year, according to Medical College of Wisconsin Affiliated Hospitals policy. A resident may accrue up to a maximum of 20 unused sick days from previous Medical College of Wisconsin Affiliated Hospitals academic years. See the Medical College of Wisconsin Affiliated Hospitals Housestaff Handbook for further information. As all patients are assigned to a faculty physician, that faculty member assumes care of those patients when a resident is sick. If residents are required by hospital policy to quarantine for an illness will need to use sick time or other leave to cover the time off.

If a resident is ill and cannot come to work he/she must notify the faculty with whom they are working, **as well as the Program Coordinator by 8:00 a.m. to explain his/her absence.**

Psychological, emotional and physical well-being are critical to the development of competent, caring, resilient physicians. Residents are allowed to take time, during normal work hours if necessary, to attend medical, mental health and dental care appointments. Residents are encouraged but not required to schedule such appointments to minimize their impact on daily clinical duties when possible. But they will be allowed to make appointments whenever is required.

For routine appointments, residents are required to provide as much notice as possible. Residents are not required to disclose the nature of any appointments, only that they have an appointment and need to be away from clinic. For urgent care needs, residents should notify the program as far in advance as circumstances reasonably allow.

D. Educational Leave

Residents in the PGY-2-5 years are currently allowed 5 days of paid educational leave. Other travel and expense allowances may also be provided at the discretion of the Chairman.

The educational leave described here will be allowed for national meetings approved by the Program Director. These currently include the ASTRO meeting in the fall, as well as the Spring ASTRO Refresher Course, RSNA meeting in early winter, the American Radium Society meeting in early spring, (if held in the continental United States or Canada). Any other meetings that you propose to attend must be approved by the Program Director. Additional educational leave may be granted if the resident presents a paper or poster (if supported by mentoring faculty) at one of these national meetings (at the discretion of the Chairman). In order for this leave to be granted a first draft of the associated manuscript must be delivered to the supervising faculty prior to the date of the meeting or the leave may be cancelled.

Residents should be aware that there are many resident essay and travel awards at each of these meetings which not only will be an asset to career development, but will also provide a free trip to that particular meeting and sometimes a cash prize. Residents are strongly encouraged to avail themselves of these opportunities before requesting support under departmental auspices.

***Residents wanting to take educational leave (i.e., ASTRO, RTOG, etc) during VA rotations must have approval with the VA system through VA leadership before going on educational leave.**

If residents have unused educational leave, they may use this leave to study for ABR exams. This leave can only for study one month in advance of taking an exam.

E. Library and Reprint Files

Internet access is available 24 hours per day in the resident's office so as to perform literature searches. There are numerous hard cover and soft cover books pertaining to oncology and radiation oncology located in the resident's office. **These are not to leave the residents office unless they are checked through the Program Coordinator.** Faculty members hold extensive reprint files and hard cover books which they are willing to share with you provided that you return the files immediately after use. Please notify any staff whose reprints you would like to utilize each time you do so.

F. Problems

If any resident encounters problems regarding other residents, ancillary staff, or faculty members, these should be addressed to either Dr. Currey, Dr. Shukla or Dr. Schultz. They will make themselves available to you, if you let them know.

In the event that residents feel uncomfortable discussing problems with Dr. Schultz, Dr. Shukla or Dr. Currey, MCWAH has provided a hotline that residents can contact (414-955-4798).

MCWAH also provides mental health services to residents. A faculty member in the department of psychiatry and has been charged with supervising MCWAH's mental health services. In the event of a resident mental health crisis during normal business hours, he can be paged directly through the Froedtert paging system. For a resident mental health crisis outside normal business hours, residents should contact the hospital operator and ask for the psychiatrist on call for the "Tosa Center" to be paged.

G. Radiation Safety During Pregnancy

Purpose: To provide an evaluation of working conditions and provide monitoring as necessary, of the declared pregnant staff member with regards to occupational and fetal radiation exposure.

Definition: Declared Pregnant Woman (DPW) means a woman who has voluntarily informed their employer i.e., FMLH or MCW, in writing of their pregnancy and the estimated date (month only) of conception. The declaration remains in effect until the declared pregnant woman withdraws the declaration in writing or is no longer pregnant.

Policy: To declare a pregnancy, a woman and/or her supervisor shall notify the Radiation Safety Office (RSO) in writing upon declaration of pregnancy. The RSO staff shall evaluate the working conditions and determine if any restrictions or modifications are required to conform to regulations concerning radiation exposure limits of the embryo/fetus.

Procedure:

1. Staff - To declare a pregnancy the employee shall submit the declaration in writing to her supervisor. The declaration shall include the estimated date of conception.
2. Supervisor - Submit a copy of the declaration to RSO.
3. RSO Staff/Department Manager (of affected department) - Evaluate the working conditions and determine if any restrictions or modifications to the working environment are needed to comply with fetus/embryo radiation exposure limits. Be available to discuss, with the DPW, the risks of exposure to the fetus and measures to reduce that risk.

XV. Requirements of Residents

A. Daily Schedule (Also see section F "Call")

All residents are required to be in the department daily from 7:30 - 8:00 am (depending on the time of conference) to 5:00 – 6:00pm (depending on conference schedules), or until all work is completed and/or excused by the appropriate faculty member. Case conferences are provided as a major teaching tool for residents and attendance is mandatory, regardless of

rotation. This ensures continuity of the educational experience regardless of the site where a resident is rotating. Resident clinical duties begin later in the morning at the outside rotations to allow for travel after the morning conferences. Please make sure that you are familiar with the schedule. A written schedule is available from the program coordinator

There are several other conferences during the week where attendance is also mandatory, unless a faculty physician approved excuse exists. These include weekly Wednesday Grand Rounds from 5:00 - 6:00 pm (except for July and August), and a weekly QA Chart Rounds and new patient rounds held on Tuesdays, from 7:30 – 9:00 am. For afternoon conferences and classes, resident clinical duties at Froedtert Menomonee Falls (FMF) and VA will end early enough to allow for travel back to Froedtert for these didactic sessions. Virtual options may exist for Grand Rounds. But when held in person, in person attendance is required.

If a resident needs to leave the department for any reason he/she should notify his/her staff and leave word as to how he/she can be reached.

The residents are responsible for selecting cases for presentation at conferences on Monday, Tuesday, and Wednesday. For Monday and Tuesday morning conference, contents should be discussed with any of the physicians based at FMLH or FMF. FMF cases may also be presented on Monday or Tuesday morning. For Wednesday morning conference, it will be the responsibility of the VA resident to prepare the cases for discussion under the direction of VA faculty.

B. Didactic Lectures

Several courses are provided for residents as part of their training. The Physics course is presented during the second through fifth years of residency and attendance in this course is mandatory. Course director is Dr. Kristopher Kainz. The course runs year round. Class times are determined by arrangement with the Physics faculty. **Attendance at this lecture series is mandatory.**

The Radiobiology Department also provides a didactic course for second through fifth year residents covering radiation biology and molecular oncology. Course director is Dr. Heather Himburg. **Attendance at this lecture series is mandatory.** Any homework must be completed as assigned by the Physics or Radiation Biology instructors. The Radiation Biology faculty will decide class times. Exams will be given in Physics and Radiation Biology at the discretion of the faculty teaching these courses. The clinical faculty has been notified that attendance in these lectures is mandatory (except in the PGY V year if the resident has already passed the physics and radiation biology portion of the board exam) and will release the residents from clinical duties so that they can attend.

A Medical Statistics course is offered every other year. Dr. Currey is the course director with other faculty members teaching with him as needed. He arranges specific dates for class.

During the Radiation Oncology Research Conference (Grand Rounds) held the first Wednesday of each month, clinical didactic lectures geared toward the residents are held. In addition clinical didactic lectures are held annually after mock orals. Each examining clinical faculty will address their respective clinical exam. This results in a series of approximately 10-15 morning conference (lectures) addressing all clinical areas of radiation oncology.

The department also provides alternating annual review courses in radiation biology and physics. Often times these are held during clinic hours and over the weekend. Residents who have not passed the radiation biology and physics boards will be excused from clinic to attend. For those residents, attendance is mandatory, even on weekends. To miss the course, residents will be required to use vacation days even on days the course occurs on a weekend.

C. In-Training Exam

Each year an in-training exam is administered to all radiation oncology residents. This is a nationally based peer reviewed exam and is a requirement of all Medical College of Wisconsin Affiliated Hospitals Radiation Oncology Residents in the second through fifth years. This exam is usually held during the month of March. The result of this exam is used as one of the evaluation tools to assess a resident's performance in the program. The department will pay for the cost of this exam.

The department will also purchase Raphex and Rabex exams annually as another educational tool for the residents to assist in preparation for the physics and radiobiology exams.

D. Research Projects and Rotations

1. During the four years of residency, each resident must complete at least three clinical, physics, or radiation biology research projects or quality improvement projects. The project must be approved by one of the clinical, physics, or radiobiology faculty who will serve as the mentor. Projects should be hypothesis driven and will be discussed and further developed at the departmental research meeting. These projects are to be presented at a Grand Rounds Research Conference in September and October of the following academic year. Dr. Lawton will coordinate the Grand Rounds Conference schedule determine exact times. A timeline for identification of a project and presentation at departmental research committee is as follows:

July-August – Residents identify research projects and available faculty mentors

Late August-September – Residents present research concepts at departmental research committee meeting

September 30 – Research Project Verification Form due to Program Coordinator

November – Residents will be contacted to schedule follow-up presentations at research committee in the coming months (November-January)

January 31st – All residents will have presented projects at research committee

February 28th – Research abstracts due to program leadership. It is encouraged that these be submitted for presentation at national meetings.

Following September/October – Research projects presented at departmental Grand Rounds.

2. At resident quarterly performance review, progress on research projects will be discussed.
3. Dedicated Research Time is available for PGY IV and V residents pending their clinical performance. Residents who have time out of clinic must be in good standing. Good standing is defined as: 1) "Meets Expectations" or higher on all rotation evaluations. 2) Level appropriate milestone assessments from the Clinical Competency Committee. 3) Remaining up to date with administrative duties such as case logs,

evaluations, conference attendance, MCWAH and ACGME surveys and timely vacation requests.

Residents who wish to have dedicated research rotations in their PGY IV and/or V years need to define the research project (including goals of meeting presentation/publication) and mentor no later than 30 days prior to the desired research time. Most residents should have multiple projects to work on during research rotations or a project of sufficient size and scope to warrant full time attention. The expectations of a research rotation is to bring projects to completion, which is defined as manuscripts submitted for publication. If there is not sufficient progress on projects, residents will return to clinical duties.

In order to meet ACGME requirements, at most six months of research time is allowed. If residents complete an internship with a MCWAH program and have done a one month rotation in pathology, radiology, or adult oncology, that rotation may count towards the program requirement for those rotations. This may result in an additional one month (for a total of 7 months over the course of the residency) of research time. Any electives outside the department (including international electives) can be conducted during research time.

E. Patient Safety and Quality Improvement (PS/QI)

1. PS/QI Curriculum

- a. Residents are required to attend weekly chart rounds on Tuesday mornings. At this meeting, treatment plans for patients starting treatment the previous week will be reviewed by the faculty members and residents in attendance as part of departmental peer review and quality control. Morbidity and mortality related to treatment is also reviewed and discussed in this conference. In addition to required attendance, residents are encouraged to participate in the discussion.
- b. In the PGY-4 year, residents are required to attend the departmental patient safety committee meetings.
- c. Residents may also participate in the Patient Safety and Quality Improvement one month elective that is offered annually through MCWAH.
- d. The Director of Risk Management from MCWAH teaches residents about risk avoidance and risk reduction at MCWAH orientation for new residents and at meetings twice per year. Attendance at this session is required.
- e. The director of housestaff mental health services teaches residents about issues regarding fatigue and stress at didactic sessions held annually. Attendance at this session is required.
- f. MCWAH is developing a GMEC Subcommittee to develop the Patient Safety-Quality Improvement Curriculum that is available to Program Directors and housestaff on the MCWAH intranet site.

2. PS/QI Practices in the Department

- a. Chartrounds are held weekly as described above. Resident attendance is required and tracked as one of several didactic conferences held weekly.
- b. When residents leave a rotation, a patient handover policy exists. Please see the section on transitions in patient care below.
- c. The training program strictly adheres to the ACGME work hour restrictions. Please see section on Duty Hours Below. These hours are monitored both by the training program and twice per year by MCWAH leadership.
- d. The Chair of the Departmental Safety Committee (Dr. Beth Erickson) is available to housestaff to consult on concerns related to patient safety and quality improvement. Similarly, the Directory of Risk Management from MCWAH is also available to consult on these matters.
- e. The Director of Risk Management from MCWAH sits on the Joint MCW-Froedtert Quality Review Committee to identify and act on systems related issues that impact residents that are factors in adverse patient events.

F. Implants and Unsealed Source Administration

The department is routinely involved in the administration of radiation through brachytherapy and unsealed sources. All “implants and unsealed sources” should be attended by a minimum of one resident per implant. Whenever possible residents should attend IVB treatment procedures as well. The resident attending the implant/unsealed source treatment must be available to admit, care for, and discharge the patient. Source removal if necessary is a resident with supervising faculty responsibility and it is a requirement for participation in the implant experience.

G. Procedures for Residents Participation in Brachytherapy

The goal of this section is to help the residents and supervising faculty understand the role of the residents in brachytherapy procedures. Brachytherapy procedures are a high priority for the residents and therefore, the following plans should be followed so that communication is performed and all faculty and residents understand their role.

1. A resident will be identified to be involved in every brachytherapy case within the department whether as a resident who is assigned to a particular faculty for a 3 month block of time or whether it is a resident who is assigned to a faculty member for a given brachy procedure.
2. The order of events for residents participation in brachytherapy is that the first priority is given to the resident who is working with the faculty doing the brachytherapy procedure.
3. If a faculty member has no resident currently working with him/her then the Program Coordinator will identify a resident to be involved in the brachytherapy procedure.
4. It is the Program Coordinator’s job to not only identify, but inform the resident of their participation in a given procedure.
5. Once the resident is notified it is the job of that resident to contact the supervising faculty member for the brachy procedure so as to understand

- location, time and any other issues related to the procedure including patient identification and chart review.
6. The most reasonable way for the resident to notify the faculty member is through paging. The residents are to page the faculty member a minimum of 2 times and it is the job of the faculty member to respond to those pages.
 7. Once the connection is made between the resident and supervising faculty member it is the job of the faculty member to provide the name of the patient, time of the procedure, and the location of the procedure so that the resident knows where to be for the procedure and when to be there as well as the resident will have the opportunity to review the chart so as to be up to speed on the indications for the brachytherapy procedure.
 8. It is the job of the resident who is involved in the given brachytherapy procedure to show up on time as per the faculty member's recommendation or to contact the faculty if there is some type of problem. If the resident is otherwise supposed to be in clinic or at a lecture or at morning conference it is the priority of the resident to be at the implant during the time of the implant.
 9. The residents should also be involved in the post implant CT's and dosimetry with the timing of such to be given to them by the supervising faculty for the brachytherapy procedure. It is the job of the resident to communicate with their clinic faculty (if the clinical faculty is different from the supervising brachy faculty) as to the amount of time that they are likely to be out of clinic or out of their other procedures.

H. Call

Being "on call" for the department of Radiation Oncology is a requirement of all residents. "On call" schedules will be provided, as well as a pager. Being available when the resident is "on call" is mandatory. If the resident is located where the pager does not work it is the residents responsibility to notify the paging system of alternate ways of reaching them (i.e., a telephone number). Getting a new battery when the pager indicates a need is also the responsibility of the resident and batteries are available from the Program Administrator. If the resident has scheduled vacation or is unexpectedly required to go out of town, it is his/her responsibility to find another resident to take "call". Although the pager reaches miles from the hospital, it is unacceptable to be more than 30 minutes away from the hospital at anytime the resident is on call.

When on call and an unfamiliar patient telephones with a problem, often times because you will not know the patient well, it behooves you to have him/her come either to our department or to the Emergency Room. By doing so, the resident can come in and examine the patient to resolve the problem. Occasionally simple questions or problems may be resolved over the phone, but if the resident on call has **any** questions about the situation he/she should call his/her respective backup faculty to discuss the patient issue(s). In the event of a true emergency, the patient should be referred to the Emergency Room for evaluation by the ER staff. The resident should notify the Emergency Room physician by phone of the patient's circumstances and be available to participate in the care of the patient. **While on call if you are up the better part of the evening pertaining to patient care please contact the Program Director or the Program Coordinator and you will have the next day off.**

A member of the faculty is on-call with the resident at all times. Residents are encouraged to contact the faculty member on call with them with any question they may have or if they are presented with a situation that they may not know how to address. If a resident has to see a new consultation outside normal working hours, it is expected that they will contact the faculty member on call with them to discuss the case. If a patient is to start a new treatment course after hours or on the weekend, the faculty member will join the resident and assist in getting the treatment planned and executed.

I. Duty Hours

Duty hours are defined as all clinical and academic activities related to the training program, i.e., patient care (both inpatient and outpatient), administrative duties related to patient care, the provision for transfer of patient care, time spent in-house during call activities, and scheduled academic activities such as conferences. Duty hours do not include reading and preparation time spent away from the duty site.

Duty hours are limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities. The average work week requires the resident to be in attendance Mon- Fri from 7:30 – 6:00 or when clinical work is complete. **All dictation (or written evals) on patients seen on a given day must be dictated prior to the resident departing work that same day. In addition all port films (electronic or hard copy) and lab values for a given day are to be reviewed by the resident prior to departing work that same day.**

Residents are provided with 1 day in 7 free from all education and clinical responsibilities, averaged over a four-week period, inclusive of call. One day is defined as one continuous 24-hour period free from all clinical, educational, and administrative activities.

Adequate time for rest and personal activities are provided. This consists of a 10-hour time period provided between all daily duty periods and after in-house call.

Compliance with the Duty Hours Policy is reviewed weekly by the Program Coordinator with areas of non-compliance reported to the Program Director. Also, compliance with the Duty Hours policy is reviewed quarterly by the Program Director with each individual resident at the time of the quarterly review.

J. Fatigue Resources

On the rare occasion that residents have to spend a large part of a night in the hospital, there are several resources available to them. At Froedtert hospital, there is 24 hour food services at the Patio Café and at vending machines throughout the hospital. There is a common call room in pavilion wing of the hospital that residents have access to. Rooms designated as available to residents include 185P, 187P, 189P and 193P. The combination for these rooms is the room number.

Residents and faculty will receive training provided by MCWAH on identifying fatigue. MCWAH also has created a list of “post-shift fatigue resources” to help housestaff identify sleep facilities if they are too fatigued to travel home. These are available on the MCWAH

website. Furthermore, if a resident is too fatigued to drive home, the department or residency program leadership will provide cab fare for the resident.

K. CPR

Residents in the Department of Radiation Oncology are required to be certified in basic CPR. Advanced life support is not a requirement and is optional. The latter certificate would need to be obtained on the resident's own time. Unless you have been CPR certified elsewhere, you are required to attend recertification while a resident in the Department.

L. Transitions in Care

In order to minimize transitions in patient care, each patient seen in the radiation oncology department is assigned to a faculty member who is ultimately responsible for that patient. Therefore, there is no gap in that care as residents change rotations. In order to facilitate continuity of patient care among the residents, residents are to generate an electronic sign-out sheet at the end of their rotation. This includes a list of that patient's under treatment on a particular service and any patients that have not yet started treatment and have issues that require follow-up. It is the responsibility of the resident coming off a service to generate this list and review it with the resident coming on the service. This sign out sheet will then be emailed to the faculty member for review to ensure the handover has been done properly.

M. Duties of the Chief Resident

One of the fifth year residents will be selected as the chief resident for that particular year, (in some cases the position will be shared over the year) and there are some duties that are a requirement of this position. This position also carries a slight increase in stipend.

The chief resident is responsible for guiding the younger residents regarding any issues concerning their residency, from timeliness at conferences, to being on call, to helping them obtain articles pertinent to discussions at morning conferences, etc. In addition, the chief resident will be responsible for keeping a log of what is discussed at morning conferences so that no areas are overlooked during the academic year. If the chief resident has any problems in performing his/her duties, he/she should discuss them with Dr. Lawton.

Radiation Oncology Chief Responsibilities

Education

- Attend education committee
- Develop curriculum for resident conferences
 - Ensure core topics are covered
 - Contouring sessions
- Medical student education
- Coordinate physics/radiobiology review course

Administrative

- Conference schedule for residents
- Assist guest speakers with needs during time with residents (e.g. visiting professors)
- Conference attendance taking

- Call schedule
- Notifying staff of resident protected time (e.g. physics/radiobiology review course, visiting professors)
- Organize resident contribution for graduation

Communication

- Facilitate communication between faculty and residents for clarification and conflict resolution
- Provide leadership for communication among residents
- Communicate conference topics and times to faculty
- Provide assistance with call for junior residents
- Stress importance of professionalism (e.g. timeliness, dress code)

Social

- Chiefs are encouraged to organize social events for residents
- Maintain positive environment and good morale among residents

N. Portfolio of Experience and Logs

Each resident in the PGY-2 through 5 years will keep a portfolio of clinical experience. This may include a copy of each consult, OR procedure, implant and unsealed source treatment with which you are involved with all patient identifiers removed. In addition the residents are required to fill out weekly logs to document their educational experiences. The Program Coordinator will computerize these logs for submission to ACGME and for review quarterly by Dr. Currey with each individual resident. Ultimately, this log will be important in standard setting in radiation oncology, and thus, should be initiated at the beginning of the PGY-2 year. Participation in any case means active involvement, not just hearing about a case or casual observation. The Program Coordinator will help will help the residents complete the ACGME log requirements as well as our own more comprehensive in-house log system.

O. Winter Rules

All residents are required to attend work as usual, including conference, during inclement weather. If, for some reason, you are unable to get to conference or to work due to severe weather, please notify your respective staff or Dr. Currey or her the Program Coordinator. If they are unavailable, please call the front desk and notify the receptionist.

P. Relationships with Staff

The resident's relationships with department personnel during working hours should be a cordial and friendly one. Under no circumstances are residents to reprimand the ancillary staff for what they may regard as poor execution of their duties. By the same token, it is not the ancillary staff's position to directly reprimand the residents. If any problems occur in this regard, the resident should immediately discuss them with the Program Director. If the problem is related to program director, residents can consult with the department chair. If the resident is uncomfortable discussing an issue with program or departmental leadership, the resident can contact the MCWAH Hotline #805-4798 for help.

Q. Comprehensive Consultations

All new patients seen in the department of Radiation Oncology or in other locations, such as Froedtert - Menomonee Fall, receive a complete history and physical, which is performed by the resident. The initial history should include a history of the present illness with specific information regarding operations, previous hospital admissions, and physicians. Available lab work and x-ray findings should also be listed in this section. A Review of systems section is also required. Past medical history should include medical, as well as surgical, past history, and names of hospitals and physicians if possible. Medications and allergies should be in the history, with a special effort made to find out exactly what medication patients are taking and why they are taking them. All women should have a gynecologic history listed. All patients should have a family history listed, with special attention to a cancer family history. Social history, including detailed smoking history and occupation, as well as any exposures and drinking habits should be listed.

All patients seen in the department should have a complete physical exam. A HEENT exam includes an indirect or direct laryngoscopy when appropriate. Palpation of lymph node bearing regions and examination of breasts, chest, and abdomen will be done. Pelvic exams (for women) and rectal exams will be done, unless there are medical or other indications to the contrary. The only other time that these should not be performed would be in the event of a patient's refusal or if waived by the attending faculty.

The impression on all consultations should include the stage, histology, site, presence of lymph nodes, and the status of the patient (post-op, post-chemotherapy, post-hormone therapy, etc.). An example of this would be a Stage II (T₂N₁M₀) adenocarcinoma of the left breast with axillary lymph node metastasis (5/20), post-operative, post-chemotherapy, recurrence. An exact stage will be assigned to all patients. A separate paragraph for recommendations will include additional workup (mandatory or optional) and a plan of therapy. If patients have had a discussion of the risk, benefits, and possible side effects of radiation therapy, then that should also be listed, as well as whether a consent was signed. At the end of every dictation when a staff physician has been involved, there should be a comment outlining the particulars of the staff physician involvement. **Templates for our comprehensive consultations are available through the nurses in the clinic or directly from the Program Coordinator.** An example is attached. (See Appendix D)

All workups should be performed and dictated the same day the work was done. Obviously, emergency consultations should be seen immediately and dictated.

Patients who come in for simulation and/or who sign a consent form should have a note regarding the discussion before the consent was signed, whether the consent was signed, and the fact that the simulation was performed as well as specific details of the simulation procedure.

R. Residents as Teachers

The Residency Review Committee requires that all residents teach as a part of their residency. This includes teaching the clinical Radiation Oncology Therapists and Therapy Students as needed. The residents will also be required to teach the medical students and other residents who rotate through the department. Medical students rotating through the department will evaluate the residents ability to teach as will the therapy students.

S. Evaluations

The faculty to which the resident is assigned will complete an evaluation form at the end of each three-month rotation. Other faculty may also submit an evaluation at this time or at any other time. These evaluations should be discussed with the resident, and are available for review. If you have any problems with these evaluations, please contact Dr. Currey, Dr. Shukla or Dr. Schultz.

Residents also evaluate their respective faculty at the end of each three-month rotation. These evaluations are totally confidential and will be shared with the faculty annually in a confidential manner. Drs. Currey or Shukla will meet with each resident at least twice a year for a programmatic evaluation.

The nursing staff, therapy staff, dosimetrists and Program Coordinator will also fill out evaluations on all residents rotating with them. These evaluations will serve as tools to evaluate the overall performance of residents in the program.

Semi-annually the residents will also evaluate themselves and discuss all evaluations with Dr. Shukla or Dr. Currey. Evaluation tools are attached in Attachment A. Annually the residents will evaluate the entire program. Finally an overall evaluation of the 4-year program will be done by senior residents who are graduating.

Mock boards will be conducted annually in the spring. Dates and times will be decided through program leadership. Faculty and residents participation is mandatory as this is one evaluation tool.

Chart stimulation recall will be done annually and serves as another evaluation tool.

XVI. Miscellaneous

A. Moonlighting

Moonlighting is against departmental policy. Any resident needing additional income from moonlighting must discuss this with Program Leadership. If approved by the departmental leadership, all moonlighting must also be approved by MCWAH's Designated Institutional Official (DIO) and comply with all MCWAH guidelines.

B. Dress Code

Since patient care and sensitivity is our #1 priority, we require professional dressing in our clinic environment. This dress code requires that all students/residents have clean white lab coats on over their clothes. No jeans or tennis shoes are allowed and no outfits that expose cleavage or any part of the torso will be allowed. It is assumed that the men will wear clean dress shirts, dress slacks, and socks and that women will wear appropriate skirts, dresses, or dress slacks.

Appropriate attire in addition includes a clean, long white coat with a name for identification. The department will provide these. It is the job of the Program Director to implement this policy. If there is any question of a particular resident's choice of clothing, the Program Director will meet and discuss this with the resident. The dress code policy may change at the discretion of the program director at any time.

C. Societies

Each resident should, to the best of his/her ability, join the ASTRO Society as a junior member, as well as the RSNA. Becoming junior members in these societies is important not only for your curriculum vitae, but ultimately in seeking jobs, etc. There are benefits to belonging to these societies including subscriptions to the Red Journal, Radiology, etc. If you need more information or letters of recommendation to join these societies, please ask Program Leadership

D. Graduation Ceremonies

Each year in June our residents have a graduation ceremony. The date and specific arrangements regarding the ceremony should be arranged through the Chairman and Program Director.

E. Chart Handling

Any residents who want to use either active charts in the clinic or inactive/expired charts found in the back offices must check out the charts through either the receptionist at the front desk or through the secretaries in the back office. **Charts are not to leave the department under any circumstances.** Thus, all work regarding paper chart review must be done within the department.

F. Department of Veteran Affairs

There are several things that each resident needs to know regarding procedures and policies at the Zablocki VA Radiation Oncology Section in addition to the orientation to the physical layout of the department which will be explained to you individually. On first arrival at VA, you must go to the Credentialing Office before you can be cleared to see patients. You will also be given a hospital computer access code. This will be issued to you in the Library after you fill out the access code form. This will provide you access to patient reports and data on the VA hospital computer system (DHCP/VISTA) and the ability to use "electronic signatures" for the consults, simulation notes and treatment summaries you dictate using the hospital system.

POLICIES AND PROCEDURES AND QA

There is a Policies and Procedures Manual which is available for your reference. It is suggested that you look through this manual when you first begin your rotation just to get yourself oriented to its contents. Pay particular attention to memos describing the procedures of performing a consultation and the elements of a complete physical examination relative to radiation oncology consults. The Quality Assurance Manual discusses issues regarding the completeness of a consultation, follow-up and other matters.

Unless otherwise stated, the documentation of patient interactions described below are made part of the patient's electronic medical record via VISTA/CPRS or DHCP either by direct physician entry or by dictation.

CONSULTATION REPORT

Both the resident and staff physician should review all available electronic/paper chart-based historical data, reports, laboratory and imaging studies; the consultation report should reflect this review.

The report should follow guidelines outlined in the Consultation P&P and should follow CMS E/M guidelines. When dictated and available for editing in CPRS/VISTA, the resident's consult report will be proofread, corrected, if needed, by the resident and electronically signed. It will then be sent via CPRS alert to the applicable staff physician for electronic co-signature. The staff physician will also dictate a consultation report, which should include references to the interaction with the resident in terms of the interview, the exam, the imaging review, and discussions held with the patient. Indication should be made of time spent with the patient and family if applicable in discussion of treatment recommendations, alternatives, benefits, and risks. The CPRS/VISTA record automatically links the resident and staff consultation reports. The final, linked resident and staff consultation reports will be electronically signed by the staff physician and printed out to include in the Radiation Oncology clinical chart. For inpatients, the resident will also manually enter a brief summary note into the electronic record on the day of consultation outlining the basic findings and recommendations so that the referring physicians have an immediate summary of the consultation to use until the dictated reports are complete. This note will be linked via CPRS/VISTA to the staff physician for co-signature. The staff may also choose to enter a similar note into the electronic record or add an addendum to the resident note. The consultation documentation, as described above, will be required of each radiation oncology resident, regardless of training level.

WEEKLY TREATMENT REVIEW NOTE

It is recommended that when a staff physician does a weekly review, that a Weekly Review note be entered into CPRS/VISTA, manually or by use of the weekly review template, documenting the interview and exam elements. It should also indicate that the treatment plan, cumulative dose chart, and dose calculations were checked and verified to be accurate. It should indicate that the simulation and beam films for that week were reviewed, adjustments made as necessary, and were found to accurately reflect the treatment plan. If applicable, it should also indicate that dosimetry was reviewed and found satisfactory to carry out the treatment plan. A statement should be included that the applicable staff physician reviewed the patient's progress, calculations, cumulative doses, dosimetry, and approved continuation of treatment. If time or other circumstances do not permit entry into CPRS/VISTA, for outpatients only, a hand-written note containing the same elements described above, will be completed on a VA progress note form, with a photocopy placed in the Radiation Oncology record and the original sent to medical records. However, use of CPRS is strongly recommended and preferred. For inpatients, a hand-written note is not permitted. The note must be placed in CPRS/VISTA so that the medical/surgical team is kept apprised of the patient's treatment progress.

For patients seen in weekly review by the resident, the degree of staff supervision will be graded to the level of training of the resident.

Weekly Review notes entered into CPRS/VISTA by the resident will be electronically signed by the resident and linked by CPRS to the appropriate staff physician for co-signature.

FOLLOWUP NOTES

For patients seen in Follow-up by the resident, the degree of staff supervision will be graded to level of training of the resident. The staff physician will interview and examine with the resident select patients. Staff physician judgment determines the appropriate level of staff involvement.

VA MORNING CONFERENCE

The senior (or solo) VA resident is responsible for coordinating the VA morning conference topics with the VA staff and other residents. Conference is held on the first, third and fifth Wednesdays of the month. On the second and fourth Wednesdays, residents attend ENT tumor board at the VA or other tumor board at FMLH depending on the resident's rotation.

VA TREATMENT PLANNING

The VA resident(s), are expected to divide dosimetry and treatment planning time to have experience with each of the VA staff

G. Locum Tenens

Locum Tenens is discouraged. If a senior resident opts to do this, it is to be done during their vacation time. Malpractice insurance coverage is the responsibility of the resident, as the Medical College of Wisconsin Affiliated Hospitals is not responsible.

Resident Tips

The following pages contain information to help you get started here. Don't be overwhelmed – some is useful to help you get started with our systems here and other information is for reference as questions arise during your first few months. Of course, never hesitate to ask us any questions as well!

- The MCW Residents

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I. Computer Systems

A. Froedtert Systems

- (1) EPIC. At Froedtert, this system is the main one for charting and reviewing patient information. You should be assigned a username and password during orientation week. If you have problems with your EPIC log-in or other EPIC questions, you may need to contact IT Support. We are able to dictate follow-up notes and clinic consults in EPIC (You can also type them in if you prefer. Some of the residents have templates) or use Dragon's voice recognition software. We type in weekly review notes and CT sim notes (there are templates you can use). This should be reviewed in EPIC training or ask another resident to show you. On the weekly review and CT sim notes, you will be prompted to enter a co-signer to your note. Type in your attending's name, and when you hit the Accept button, it will automatically go to him or her for the staff note.
- (2) When signing notes, also use the CC (Cancer Center) visit tab to make sure the chief complaint and diagnosis are filled in, and the communications manager to make sure any relevant providers will be copied on the note. At the present time residents are not supposed to enter billing codes into follow up or consultation notes (in the LOS or level of service tab). For CT-SIM notes put

“No E&M” in the billing section, and for Weekly review notes type “WRV” into the billing section.

(3)

To text page, go to "Help" at the top of the screen and on the drop down menu go to "AMCOM Paging"

There is a link to PACS on the radiology report. Sometimes (especially if it's an outside film that was uploaded), the image won't appear in PACS if you enter through Epic. Try to enter PACS directly using the icon on the desktop.

Dictations: Dial 52863 from phones on campus. You will be asked to provide your ID number. It will then ask for work type. Use:

- 206 for outpatient radiation oncology consult,
- 204 for inpatient consult,
- 225 for outpatient follow-up.

(There should be a green notecard on each computer showing which work type numbers to use). Include the encounter number and requesting (*say requesting, not referring) physician in your dictation. The job number is given at the end of the dictation. Dictations are usually transcribed within 24-48 hours. Once your dictation is in your inbox, go to the encounter, choose “notes” and find your note. Then make sure your attending is selected and “co-sign needed” is checked. Once you have signed the note, it then gets send to your attending. Enter the diagnosis for each patient at each visit. If it won't let you enter a diagnosis, check the problem list. The diagnosis comes off the Problem List, so you may need to add the condition to the Problem List before you can choose it in Diagnosis. Use the look up tab (magnifying glass) if the appropriate diagnosis is not showing up. Each consult will likely have several physicians who need to be “CC'd” in the note to communicate the recommendations. This can be dictated at the end of a note (ex. “please also send a copy of this dictation to such and such”) or this can be added later after the transcription is done through the “communications” tab in Epic, which allows you to type in the name of a provider and epic will automatically route a copy of the note to them if they are in Epic or it will fax them a note if they are outside the epic system. You can copy the provider names into the text of your note before signing it at the end to document the CC'd providers in the note itself for future reference.

() MOSAIQ: This system is internal to the radiation oncology department and contains all of the information pertinent to the radiation itself such as dose prescribed, number of fractions given, date treatment was given, port films, etc. At the time of CT sim, you should enter a brief clinical history about the patient (~1-3 sentences). This history is particularly helpful when we review the patient during chart rounds. As a resident, you enter information under the MD tab and end all of your entries with "Electronically signed by Dr. (first name) (last name) on (date) at (time)." Your attending needs to cosign your Mosaic note.

(5) PACS: Your username and password is the same as that for EPIC. You can access through Epic or directly through the desktop icon.

B. VA Systems

(1) CPRS: This is the electronic medical record system used at the VA. You will be required to undergo training with this system prior to doing a VA rotation and you'll be given username and password at that time. The number to call if you have trouble with CPRS access is 322-5914.

At the VA, we are only able to dictate consult notes. In order to get dictation rights, call Sally at 42412 and say you are a new rad onc resident. To dictate a consult note, after you create a new note, type

in "to be dictated" and then save without signature (under the "action" tab). Then a work number and progress note number will appear as well as the phone number to use to dictate. Call the phone number and follow the prompts. The dictation number is given to you at the beginning after you enter the patient's SSN, so be ready to write it down.

To page someone from Froedtert, go to "Tools" at the top of the screen, and the last selection on the drop down menu is "Other user tools/applications." A new small screen will appear with several links, one of them to the Froedtert text paging system. Another one is for Stentor imaging. At the VA, log-in to Stentor is username: view password: image4.

On the VA homepage (<http://vaww.milwaukee.med.va.gov/>), at the bottom left of the screen, there is "VISN 12 Phonebook" in which you can look up pager or phone number for employees at the Milwaukee or other regional VAs. This is helpful as Milwaukee is the VA where all patients are sent for radiation in this region, and we often need to get in touch with the medical oncologists from the referring VAs (e.g. Madison, North Chicago).

C. Froedtert Menomonee Falls (FMF)

(1) Each resident has a 1 month rotations at FMF during the residency. There are a number of attendings that work at FMF. Contact Karen Ferkans-Rupert to arrange the various passwords and permits that you will need at FMF. The computer systems are very similar to Froedtert. We use Epic and MOSAIQ for patient care and then Xio (Monaco) to contour. You can contour remotely as well. If there are 2 attendings in clinic at the same time, our default is to go with the more senior attending. Karen Ferkans-Rupert is helpful for any questions. Her email is: kferkans@froedterthealth.org

D. Children's Systems

(1) Children's Hospital: You only need access to this system when you are on your peds oncology month, and you can get access by going to Physician Services on the 1st floor of Children's. This just transitioned to EPIC however there are separate access credentials from FMLH, this will be an evolving issue. You will need to obtain Children's hospital EPIC access from IT support at children's: Physician Services.

E. Remote Access

(1) Froedtert: <https://remote.fmlh.edu> or remote.froedterthealth.org

Log-in is the same as your EPIC log-in. Jeanette Terry can help you obtain access, or try the MCW-IS service center (414-456-4357; help@mcw.edu)

This web-page has links to EPIC, PACS, Mosaiq, and Xio so you can dictate, edit dictations, look-up patients, and contour from home. The internet icon opens up to Froedtert's home page, with a link for text paging.

(a) Focal sim: Go to <https://remote.fmlh.edu> and login. Open Focal Sim. Username and password is same as for Xio in dosimetry. Click on "Remote Xio Patient" in the gray box that pops up, and click on the + next to rtp 1. Then select the patient's name. In the upper left corner of the screen, click on 1 and press load. To edit your contour, use "replace" (it's easier than "reshape"). The rest is pretty self-explanatory. You can add a new structure by typing it into the white drop-down box on the toolbar. When you are done, go to File and Send Patient. Click the box next to your patient. Then go to File, Exit. Remember to send the patient back - no one can access the patient through Xio if you don't send the patient back.

(c) Remote Whiteboard: The Whiteboard lists all of the patients that are to be contoured along with what rtp the patient is on and the dosimetrist. The website is: <http://141.106.35.242/fmi/iwp>. The user name is radonc, and the password is radonc. Choose the archive option in Whiteboard to see patients that are not currently being treated.

(2) MCW: www.portal.mcw.edu

This website allows you access into the MCW system, most notably access to the MCW library online. Ask Cindy Worgull about how to obtain username/password. As a bonus, you can also get to your non-MCW email through the internet browser on this site (websites like Gmail are blocked on the Froedtert browser).

(a) Remote MCW library access: <https://login.proxy.lib.mcw.edu/login> This webpage has a link that allows you to obtain a remote access account, and it is also the webpage that you use to log-in to the library. (You can also go through www.mcw.edu, go to Education and down to MCW Libraries, and there is a link to "Connect from off campus" which brings you to the website above)

(3) VA:

(a) CPRS: <http://infoscope.mcw.edu/> On the right side of the page, scroll down and click "College Affiliate Links." Then click "VA network access" which will bring you to Remote Desktop Web Connection. Click on "connect" and it will look like your VA screen, asking for username and password.

(b) We do not have remote contouring for the VA yet.

(4) Children's:

-*login.chw.org is the easiest access from any browser using your CHW login ID.

Or <http://infoscope.mcw.edu/> on the right side of the page, scroll down and click "College Affiliate Links." Then click "Children's Hospital Web VPN" A new screen will appear and ask for your username and password. The next screen lets you choose Sunrise Acute Care, Sunrise Ambulatory Care, 3M-Softmed, etc.

F. Email

(1) MCW email: <https://owamail.mcw.edu> or <http://portal.mcw.edu/> and use the link to Outlook Web Access

Username and password should be given to you at orientation.

To keep track of our conferences, we use google calendar. Username is: mcwradonc Password is: Mcwradonc#1 You should enter the staff and topic for your assigned day once you know that information.

G. G drive

This is a good source for a variety of articles, presentations, etc. from other residents and some staff. Also, our radiobiology and physics PowerPoints for our lectures are kept here. To access, go to portal.mcw.edu. Sign in and double click on the Windows Explorer icon. Then select My Computer, and several drives will appear, including the G drive ("radiation oncology on mcwshared (G:)"). Many folders come up. The most pertinent for us are the Resident File and Radiobiology. If you don't have access (or the G drive does not appear when you open My Computer), email Cindy Worgull to get access.

II. Helpful websites:

(1) www.nccn.org

This website has staging and treatment guidelines for every cancer.

(2) www.rtog.org

Among other things, you can look up RTOG protocols.

You can also access online atlases for contouring anorectal, GYN, prostate (pelvic lymph nodes and post-op), head and neck, brachial plexus, and breast sites. Go to Protocols and Contouring Atlases (There is a hardcopy version of the prostate and head and neck atlases in black binders in the resident workroom.)

(3) www.arro.org

-Links for on demand playback of journal clubs and econtouring sessions.

(2) Text Books Online

Perez and Brady

<http://solution.lww.com/perezandbradys>

Username: mcwresident

Login: mcwradonc

EXPERT CONSULT Leibel 2010, Cox 2010, Gunderson 2012

<http://www.expertconsultbook.com/expertconsult/o/login.do?method=display>

username: mcwradonc@gmail.com

password: mcwradonc

(5) www.med.harvard.edu/AANLIB/cases/caseB/tab10.html

Website with axial images of brain anatomy with important structures labeled

(6) <http://www.entusa.com/index.html>

Website with videos of a laryngoscopy and self-test of laryngeal anatomy.

(7) www.irsa.org

Website with CNS treatment guidelines.

(8) http://www.med.wayne.edu/diagradiology/anatomy_modules/axialpages/Detail_01_00.html

Skull base anatomy

(9) http://en.wikibooks.org/wiki/Radiation_Oncology/Chemotherapy_combinations

Abbreviations for chemotherapies

(10) ***Wikibooks, radiation oncology, in general has good reviews of different topics, including the relevant studies.

III. Important numbers to know when you're on call:

(1) Froedtert main number: 414-805-3000

(2) Froedtert rad onc number: 414-805-4400 (if you call this number after hours the answering service will pick up)

(3) Froedtert answering service: 414-805-6070 You don't need to give this number out to patients or remember it. Tell patients to call 805-4400 which is the rad onc clinic number and they can get to the answering service after hours through this number. But the 805-6070 is the number that will come up on your pager when it's the answering service calling you.

(4) VA main number: 414-384-2000 (Call this number, then enter the extension on your pager).

All VA numbers internally are 5 digit numbers starting with a 4 (ex 42585 = Rad Onc front desk) If you get a page with a 5 digit number starting with 4, it's from the VA. Note: if you are ever paged to a 5-digit number beginning with a '1', and are unsure of the source, it is probably coming from the Madison VA. Call the VA main number and enter the extension as normal.

(5) VA rad onc number: 414-384-2585

(6) CMH operator: 262-257-5100

(7) CMH answering service: 262-805-4749

On the call schedule for the month, the attendings' pagers and phone numbers are listed. If you need them, page first. If there is a patient you are coming in to see and will likely need to treat, page the attending to give him or her a heads up and convey that you are on your way in to see the patient. When you start the call week it is a good idea to "round up" all the contact information from the therapists who are on call for that week, including the on call therapists at FMLH, VA, and CMH. In addition it is a good idea to confirm with the on call faculty who is listed on the schedule that they are in fact on call that week, because sometimes faculty make switches with each other (or cover for each other for a weekend) but that information can slip through the cracks.

The therapists' call schedule is on a different sheet with their phone numbers and pagers (separate lists for Froedtert and the VA). The CMH pager for the therapist on call is 414-557-8838. If you are unable to contact a RTT on call, you may call Karen anytime for assistance: Karen Ferkans Rupert 414-587-4680 (first) or pager 414-590-0667. It's helpful to know which therapist is on-call for each hospital and how they can be contacted (phone or pager). Call each site on the Monday of your call week to get this information. The therapist call schedule at FMLH is usually posted by most of the machines, but it is good to double check with the therapists to make sure that it is correct. . The therapist call schedule at the VA is almost always incorrect as they tend to split up the call between several therapists during the week, so it is always a good idea to call over to the VA to ask who is on call for what days and have a pen and paper handy.

Typically the therapists like to have you use their cell phones as a contact method instead of the pager.

Some people like to e-mail themselves all of the information for the week or write it on a slip of paper and keep it with the call pager so that its always available.

Before your first call one of us will try and go over some basic things that are helpful to know on certain situations that can come up over the phone.

If there is a patient that needs to be treated on the weekend, the on-call therapist from that hospital will page you via the on-call resident pager Friday afternoon and together you will select a time to come in.

For the calls that come in, email or talk to the resident and attending caring for the patient the next day or after the weekend so they are aware and can provide follow-up of the issue.

Before your first call, call the answering service and make sure they have your personal home phone and cell phone numbers in case there is a glitch in the paging system and you don't get the page. This does happen on occasion. If you don't return your page, they will try your personal pager and then your home/cell phones. Make sure to always carry both pagers when you're on call (call pager and personal pager).

If you want to switch a call resident with another resident, email Cheri McElhatton the dates you are swapping.

IV. Keys:

(1) Froedtert: Cheri will give you keys to the rad onc department at Froedtert.

(2) VA: ask Roberta to help you get security clearance. Once your key is ready, you'll have to go to the Human Resources department to pick it up. This office is located at the west end of the VA (in the older red brick building). Go up one flight of stairs, then make a left, go down the hallway, and through the glass doors at the end of the hallway.

V. Professional Societies

The applications for these will likely show up in your mailbox, but there are the ones to keep an eye out for. Also, there are links to the membership application on the websites. (Ask Cindy Worgull if the department will pay for your membership).

(1) ASTRO: <http://www.astro.org/>

You receive the Red Journal (International Journal of Radiation Oncology, Biology, Physics) complimentary with the membership.

(2) ASCO: <http://www.asco.org/>

Comes with Journal of Clinical Oncology for ~\$50 – this counts for one of your journal subscriptions if you want it.

(3) American Radium Society (ARS)

Membership is free. Need a member to sponsor your application and a letter from the program director.

<http://www.americanradiumsociety.org/member.php>

(4) American Brachytherapy Society (ABS)

Membership is free. You also get the Brachytherapy journal free with this membership. Easy to complete online form. Residents may also attend the Brachytherapy school in Chicago each summer for free with membership.

VI. Research Project

We are required to do one research project per year (except your 1st year). We give a 30 minute PowerPoint presentation in September at Grand Rounds to present our work. In January, Dr. Lawton would like to know our project for the upcoming year. If you need to search for patients with certain types of cancer, this can be done by looking at billing codes in Mosaiq. John Koenig can search the billing code and print you out a list of patients (for dates 1999 forward). For dates prior to 1999, contact Cheryl Glisch and she will help you obtain a list of patients, again by searching the ICD-9 codes. Mary Ann Fitzgerald (one of the research nurses) can help you with submitting an IRB if your study needs one. If you can't find patient information in Epic, also try Eclipsys and/or Clinician Access. If you apply for a grant, you need to submit a grant application to *MCW at least 5 days before your grant is due*. This is done through

ebridge, like the IRB is. Contact Mary Lucas (her office is next to the research nurses) for help with this application.

VII. Weekly Conferences:

Monday: Resident conference 7:30-9:00am at Froedtert
7:30-8am; Chart rounds 8-8:30/9am.

Wednesday: Resident conference 7:30-8:30am at the VA or a tumor board; Grand Rounds 5-6pm
(Sept-June)

Thursday: Tumor board (Peds, Thoracic, GYN depending on what service you are on)

Friday: Alternating GU and General Surgery tumor board (occasionally none) 7:30-8:30am

Also, we have physics and biology (physics 8:30-9:30am on Thursday (Sept-June) and Biology was 4:30-5:30pm on Tuesday (Sept - March)). These schedules can vary from year to year. There is an “in-house” exam on each of these subjects at the end of the lecture series for the year.

VIII. Books and other supplies

- (1) One personal text book – see the list below for recommendations (talk to Cindy)
- (2) 1 journal subscription (most residents have JCO or Seminars in Radiation oncology). (talk to Cindy)
- (3) Handbook of Evidence Based Radiation Oncology*
- (4) Hall – Radiobiology*
- (5) Kahn – Physics*
- (6) AJCC staging manual*
- (7) 1G flash drive with some important papers on pdf (we will give this to you when you arrive)
- (8) You can talk to Cindy about ordering supplies for your desk

* Numbers 3-6 are typically supplied by the department.

Recommended books (books we have and like):

1. Gunderson (most residents have this text)
2. Perez (also available online as mentioned previously)
3. DeVita
4. Halperin – Pediatric Radiation Oncology
5. Leibel

IX. Step 3, Licensing, and Boards

(1) Step 3: The department may cover the cost of the exam if you take it once you are an MCW resident (talk to Cindy). However, you will need to take it in early July or sooner because the results are needed to obtain your license.

(2) Wisconsin license: This process takes a while, and you need your license before you are able to take call.

Below is the address and contact info for the MCWAH office. They can help you with any questions you have.

Curative Care Network Building
1000 North 92 Street

Room 170 (Lower Level, North Entrance)

Telephone: (414) 456-4575 Fax: (414) 456-6528 Email: gme@mcw.edu

The licensing website is <http://drl.wi.gov/index.htm> Go to "Health Professions" then "Physicians." Go to "Forms" on the left side of the webpage. Then choose either "Physician (MD/DO) by Endorsement/Reciprocity Application Packet Physician (MD/DO) or Needing to Take Step 3 of USMLE Application Packet" depending on whether or not you've taken Step 3.

Below is a checklist of the forms you'll need to complete. Some require paperwork be sent and filled out by your medical school and internship program.

NOTE: You should start this process right away because you need to be licensed before your first call. It takes a LONG time, so do not put it off!

(FYI: The department will pay for you to FedEx your paperwork to where it needs to go. Bring the paperwork and address to Cindy and she'll take care of it for you.)

Mary Kircher can notarize the paperwork for you (her desk is across the hallway from Cheri towards Dr. Wilson's office)

- a. Application (Form #570). *Check either "Endorsement of Steps 1, 2, & 3 of USMLE" or "To Write PART III USMLE" depending on if you have or have not already taken Step 3.
- b. Malpractice Suits or Claims Form (Form #2829) and copies of malpractice suit. Court documents with allegations and settlement, if applicable.
- c. Copy of ECFMG certificate if a Foreign Graduate
- d. Letters from all State Boards where licensed (includes active and inactive licenses) (See page 3 of Application Form for instructions) *(Since I only had a temporary license for my intern year, I did not do this).
- e. Copy of Professional Diploma (and translation if necessary)
- f. Signed Authorization and Waiver Form (Form #571)
- g. Medical Education Verification Form (Form #2164) *Send to your medical school. May want to call several days later to verify they received it and will send it back to the licensing board.
- h. Physician Profile Data Report from the American Medical Association, or American Osteopathic Association *There is a link from the Wisconsin licensing page, but the website is <https://profiles.ama-assn.org/amaprofiles/>
- i. Certificate of Post-graduate Training (Form #2165) * I can't remember if this form also needs to be filled out by Cheri for your few weeks at MCW Rad Onc.
- j. Disciplinary Inquiry Report from the Federation of State Medical Boards (Form #1445) (FCVS)

k. National Board, FLEX, State Board, USMLE or LMCC score *Go to <http://www.nbme.org> and request score documents.

l. Fee attached to application Form #570

m. Work History (Form #1934)

n. Passage of the Wisconsin Statutes and Rules Examination *You will get an ID number for this once you have submitted some of the required paperwork

o. National Practitioner Data Bank Report *Go to <http://www.npdb-hipdb.hrsa.gov/> and select “perform a self-query” on the right side of the webpage. If this is mailed directly to your house, you need to then mail it to the Wisconsin Board of Licensing.

p. Convictions & Pending Charges Form (if applicable) #2252

q. Hospital, Facility and Employer Verification (Form #2167). *I think this form needs to be filled out by the institution where you did your 1st year and another copy of the form filled out by Cheri for the several weeks you’ve spent in the MCW Rad Onc department.

You can monitor the status of your license online at <https://ice.wi.gov/CredAppStatus/search.do> Once completed, the website will list your license number and you will be mailed a license. Please bring Cheri a copy of the license you receive in the mail.

The goal is to have your license by October when you are assigned your first call. The hospital requires that you have it 6 months after starting your PGY 2 year.

(3) DEA number: Apply for your DEA number after you have obtained your Wisconsin license. The website is http://www.deadiversion.usdoj.gov/online_forms.htm Please bring Cheri a copy of the DEA license you receive in the mail.

(4) Rad Onc Boards: We are required to pay for our boards in yearly installments of \$577. This is not reimbursed by the department, and it needs to be paid before September. You'll need to register on the American Board of Radiology website: <http://theabr.org/> Go to “Initial Certification: Radiation Oncology,” then “Forms” in the column on the left of the page. Then select Radiation Oncology from the top of the page, and click on “Initial Exam Registration” under Initial Certification.

X. Non-Rad Onc Rotations

1. Medical Oncology (adult):

This is done at the VA. You can find out who the fellow on-call is at the VA through the VA websites. But you really can just show up between 8:30am and 9am the first day of your rotation in the hem-onc workroom which is located on the 4th floor of the VA. If you're at the nurses station, go to the right down the hallway. On your left, there will be different medicine team workrooms, and the last one on the left is the hem-onc workroom which will be your home base. The fellow will be there to round with the inpatient team, so let him or her know you are on consults and see how he or she likes to run the consult service. FYI: the VA library is on the 6th floor and there is another workroom that is usually empty down the hallway to the left of the nurses station past the medicine team rooms. This is a nice place to do work if the hem-onc workroom is crowded.

2. Pathology: Dr. Stabefeldt is in charge of this rotation (His assistant is Kathy McBride kmcbride@mcw.edu). You can rotate with the various pathologists who have divided their responsibilities to different subsites. This rotation is done at Froedtert. Usually you can just show up to the resident pathology work room (ask one of us how to get there) and the chief or senior resident should help you get oriented. They will likely have a workspace for you with a computer. Generally the residents work on cases most of the day but staff cases at least once in the AM and once in the PM, and they also have a daily departmental “pathology rounds” at around 2 PM near the chairman’s office which can have interesting cases and they have multi-headed teaching microscopes available.

3. Radiology: Dr. Mark Hohenwalter is in charge of this rotation at the FMLH.

XI. Miscellaneous:

- (1) Our white coats are cleaned for us, and our white buttons can be reattached for us. There is a bag in the administrative office area. If you use the door by Dr. Firat's office, walk about halfway down the hallways and there is a door on the right you can drop your dirty white coat in the bag and pick up your clean ones there.
- (2) National Conferences: You get to attend one free conference per year in the continental U.S. or Canada, budget allowing. You may go to almost any conference you want so long as there is adequate resident coverage while you are gone (e.g. not all the residents can go to ASTRO) – clear the meeting with Dr. Currey. The department will pay for your registration, airfare, hotel, transportation at the conference, and give you a per diem for food if budget allows. Common conferences we go to are ASTRO in the Fall (usually end of October) and ASTRO Spring Refresher (usually in March or April). American Radium Society has a conference in April or May. And ASTRO has multidisciplinary subspecialty conferences (e.g., head and neck, lung, gyn, etc.) that we can go to and are at different times throughout the year.
- (3) FYI Dates:
 - a. In-Service Exam: usually early March on a weekday. Same date for all residents across the country. Cannot take vacation on this day.
 - b. Mock Orals: usually early April, on a weekday. Cannot take vacation on this day.
 - c. Radiobiology or Physics crash course: alternate yearly. Usually in mid-to-late April. We attend along with the Madison residents. Radiobiology is in Madison (Friday, Saturday, +/- Sunday) and Physics is in Milwaukee (Thurs, Fri, Sat, Sun). The review books from these courses are great for studying for the boards.
 - d. ASTRO abstract deadline is usually in February and the meeting is in the Fall.
 - e. There is a Southeastern Cancer Conference in the spring (usually March) in Milwaukee. Recent topics were colorectal cancer and breast cancer. It is highly encouraged that we attend this conference, but we don’t usually find out the date until 2 weeks before.
- (4) Scrub Access: Take the East Clinics elevator to the LL. Use your ID to get through the 1st set of doors on the right. These doors lead you into the hallway outside the ORs. Follow the hallway around and about halfway you'll see scrub machines on your right. Near there on the left there is a hallway. Go down that hallway on the left and you'll run into the ORs central station. Let them know there that you are a new resident and you need scrubs. They will give you paperwork to fill out. I think they can also help you get scrubs to wear for that day if you need them right away.

(5) Physicians we like:

- a. OB/Gyn:
 - i. Dr. Michael Lund (414) 805-4777
 - ii. Dr. Michael Lee (414)778-0070
- b. Pediatrician:
 - i. Dr. Pamela West (414) 479-9990
 - ii. Dr. Jerome Esser (414) 479-9990
- c. Dentist:
 - i. Dr. Chris Bauer (262) 641-0056
 - ii. Dr. Monica Hebl (414) 444-4334
- d. PCP:
 - i. Dr. Dhariwal Westbrook