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Fox Chase Cancer Center Inpatient Curriculum
Temple University Internal Medicine Residency Program

*Adapted from the Michigan State University Internal Medicine Inpatient Curriculum dated December, 2003

I. Educational Goals

PGY-2 and PGY-3 residents rotate for 4 weeks each year on the inpatient ward at Fox Chase Cancer Center. Fox Chase is an NCI-designated comprehensive cancer center, dedicated to reducing the burden of human cancer through basic, clinical, and prevention research. The Fox Chase hospital is a 100 bed hospital devoted entirely to cancer care using a state of the art multidisciplinary approach to include surgical, radiation oncology, and medical oncology subspecialties. Over 170 clinical trials for cancer prevention, cancer diagnosis and cancer treatments are underway at any given time.

The inpatient ward service at Fox Chase Cancer Center supports the fundamental inpatient educational experience of the Temple University internal medicine residency. With graded responsibility and appropriate supervision, our residents actively participate in the care of a wide variety of cancer patients seen on the inpatient medical oncology service. From direct experience, they hone their skills in history taking, physical examination, differential diagnosis, clinical decision making, and communication. In the process, our residents expand their knowledge of malignancies, pain management, and end of life care. The ward service experience is a key element in promoting the professional and personal growth of our residents.

II. Principal Teaching Methods

A. Supervised direct patient care

i. The ward team – The ward team consists of an attending hospitalist physician, two upper year residents, and at times, two sub-interns. The ward attending is the attending of record for any patient on the service. Each inpatient also has a primary medical oncologist (and often a hematology/oncology fellow) to assist in decision-making.

ii. First encounter – Patients cared for on the medicine service may be admitted through the Jeanes emergency department or directly from a Fox Chase outpatient practice, or may be transferred from other services in the hospital when internal medicine problems supersede the problems being cared for on the non-medicine service. Once a patient has been assigned to a service from one of these sources, the resident on the receiving team performs the initial evaluation. This initial evaluation is expected to include a comprehensive history and physical, review of appropriate medical records, and generation of a comprehensive assessment and plan, all of which are recorded in the medical record. Any laboratory or radiographic studies that are immediately obtainable and necessary to the immediate evaluation of the patient are expected to be performed. Within two hours of the completion of the initial evaluation, the resident

presents that patient in person or by phone to the attending physician of record. The attending is responsible for personally confirming the history and physical in a timely fashion, but within a period not to exceed 24 hours.

iii. Follow up patient care – The ward team, minus the attending, performs the initial patient re-evaluation each day on work rounds that immediately follow the pick up of sign out from the team covering the service overnight. The ongoing care of the patients assigned to a service are discussed at least daily with the attending physician of record, including weekends. The diagnostic and therapeutic plan is communicated both in the daily progress notes in the medical record and verbally in person or by phone. The attending of record is responsible for personally confirming the interim history and physical exam on a daily basis.

iv. Teaching attending rounds – Bedside teaching attending rounds occur for 2 hours, 7 days per week. Bedside teaching is complemented by more formal didactic sessions 5 days per week. Because all of the patients on a service are under the care of the hospitalist ward attending, most of the educational content of teaching attending rounds springs directly from the care of the patients on service. Although day-to-day management discussions occur as part of teaching attending rounds, the emphasis is strongly on education. The educational content typically includes medical knowledge, the association of findings and data with underlying pathology, modeling productive, respectful interactions with patients, the principles of clinical decision making, the application of medical literature to clinical scenarios, ethics and professionalism, and the appropriate utilization of health care resources. Bedside teaching promotes the direct observation by the attending of the patient interactions and physical examinations of the resident.

v. Discussions outside of teaching attending rounds – Additional face-to-face or phone encounters occur throughout the typical work day related to patient care, supplementing teaching attending rounds on weekdays. Although usually focused on the execution of the care plan, they offer additional focused teaching opportunities.

B. Participatory conferences

i. Didactic teaching conferences-

1. Frequency – Five times per week daily at noon, Monday through Friday.
2. Attendees – All upper year residents on service and fourth year medical students.
3. Presenter – Medical Oncology teaching attendings, Medical Oncology fellows, and Medical residents.
4. Format –
   (a) Didactic lectures (Monday, Wednesday and Friday). Topics include cancer screening, cancer risk assessment, cancer prevention and genetics, initial diagnosis and treatment of common malignancies, disease pathogenesis, and pain management.
   (b) Fellow lecture (once per month)- Medical Oncology fellow conducts a didactic lecture.
   (c) Professor Rounds (Tuesday and Thursday). Case-based discussions on the medical oncologic issues surrounding patients on the inpatient ward. The medical resident or student presents a recent case to start off an informal discussion regarding malignant diseases and diagnostic and management issues.

(d) Resident Report –Select Fridays twice per month. Two residents present a 25-30 minute review of a cancer-related topic encountered during their rotation using the literature to support content.

C. Attendance – Prompt attendance by eligible residents and students is expected at all noon conferences. Additionally, in the participatory conferences appropriate contributions beyond just completing assignments are strongly encouraged.

III. Schedules

A. Weekly schedule

	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Weekends**
7:30-9:00	Work Rounds	Work Rounds	Work Rounds	Work Rounds	Work Rounds	Work Rounds
9:00-11:00	Teaching Rounds	Teaching Rounds	Teaching Rounds	Teaching Rounds	Teaching Rounds	Teaching Rounds
11:00-12:00	Patient care	Patient care	Patient care	Patient care	Patient care	Patient care
12:00-1:00	Didactic/Fellow Conference	Professor Rounds	Didactic Conference	Professor Rounds	Didactic Conference /Resident Report	Patient care
1:00-5:00	Patient care	Patient care	Patient care	Patient care	Patient care	Patient care

B. Sign out – Sign out is picked up from the on call resident by 7:30 AM. Sign out is given to an on-call team at the conclusion of the day's work, typically around 5:00 PM.

C. Short call – On weekdays, every ward team that is not on call or post-call is eligible for short call admissions, which can be taken from 8:00 AM to 3:00 PM.

D. Overnight call – The overnight on-call teams begin to take admissions at 3:00 PM. Overnight call continues until 8:00 AM the next morning. Overnight call occurs every fourth day.

E. Service cap – General medicine ward services are limited to 10 patients per resident without a sub-intern and 12 patients per resident/sub-intern team.

F. Duty hour accommodations

i. One day off per week – It is the responsibility of the resident director on site to ensure that each resident on the team receives one day off in seven averaged over the block.

ii. 24/6 – An overnight on-call team rounds early in the morning post-call with the ward attending. After rounds, the team finishes its patient care work, signs out to the

covering resident, and leaves the hospital no later than 1:00 PM. Post-call residents are excused from attending any of the scheduled educational conferences.

IV. Educational Resources

A. The patients cared for – Fox Chase Cancer Center is a 100-bed hospital located in Philadelphia and serves patients with all stages of a variety of malignancies. The majority of patients on the ward service are local residents, although the center has a wide referral area to include the tri-state region. Encountered patients present with a spectrum of common cancer-related illnesses and treatment toxicities.

B. The ward attending – Ward attendings are full-time internal medicine hospitalists and medical oncology faculty members with appointments to the Temple University. As such, faculty members have demonstrated skill and interest in resident education. Their success as educators are measured by resident evaluations. A ward attending's role includes, but is not limited to, expanding their assigned residents' fund of knowledge, refining their clinical judgment and medical decision making skills, identifying gaps in knowledge or skills for the resident to remediate, modeling productive and respectful interactions with patients and colleagues, exemplifying professional and ethical behavior, and serving as a role model as an educator. The ward attending also has the role of reviewing the tiered objectives organized by competency with the resident at the beginning of the rotation.

C. Medical library – The medical library at Fox Chase is available to residents 24 hours a day, 7 days a week. Available in its holdings are basic textbooks of internal medicine and cancer subspecialty medicine. Searchable computer-based databases for finding and retrieving information from the published medical literature are widely available throughout the hospital as well. Library staff is available to assist and educate in carrying out literature searches during normal business hours.

D. Internet-based computer resources – Residents have immediate internet access at all nurses stations, in call rooms, and in a devoted library. Much of the medical library's resources are available remotely. Additionally, residents have free access to the on-line text Up-to-Date via institutional subscription.

E. Dialogues

   i. Physician consultants – Residents routinely engage the assistance of consultants from within and outside of the specialties of internal medicine in the course of their patient care. Along with their care, these consultants are expected to be readily accessible to residents to answer questions about the basic science, up to date interpretation of medical literature, and accepted evidence-based and consensus management algorithms for diagnoses in their field.

   ii. Case managers, hospice coordinators and social workers – Residents routinely engage the expertise of case managers, hospice coordinators and social workers to navigate the often complex systems of health care delivery. These professionals educate the residents about end-of-life issues, the third-party payer system, discharge guidelines, and resource management in the course of their interactions.

   iii. Clinical pharmacists – Residents frequently interact with the hospital-based clinical pharmacists in the course of the care of their patients. These pharmacists provide information on scheduling, dosing, drug-drug interactions, cost, availability, and adverse events.

iv. Physical and occupational therapists – In the course of caring for patients with rehabilitation issues, residents interact with physical and occupational therapists who educate in identifying rehabilitation needs, setting discharge goals, and utilizing accommodative equipment and techniques.

F. Program directors – Issues may arise in the course of clinical care that the resident feels are best discussed with an individual outside the health care team (e.g. interpersonal conflicts, breaches of professionalism). The program directors invite the residents and maintain easy accessibility for them to discuss any such issues. At all times, the program directors will model superlative interpersonal interactions, professional behavior, and ethical conduct.

V. Methods of Evaluation

A. Resident Performance - Evaluation of the resident occurs by:

i. faculty

1. Rotation – Each resident on a ward service is evaluated by each teaching attending who works with him or her. Residents receive verbal feedback throughout their rotation as well as a written, competency-based form developed along internal medicine RRC guidelines. The written evaluation is provided to the Temple Internal Medicine Department and is filed in the resident's folder and remains available to the resident to review. Additionally, each of those evaluations is reviewed by the program director, deputy program director, or associate program director in the presence of the resident in a biannual meeting. Because the teaching attending is also the attending of record for the majority of patients cared for by the resident on the ward service, opportunities for evaluation occur not only in didactic sessions and discussions, but also on bedside rounds, in review of all of the resident's admission and daily progress notes, and in direct observation of the resident addressing and examining patients and interacting with colleagues in the course of the delivery of medical care.
2. Procedures – In the discussion of medical care, the attending assures that the resident understands the indications, contraindications, and patient after-care of a proposed procedure. The attending reviews appropriate informed consent and assistance in patient decision-making. By direct observation, the attending confirms that the resident is able to complete the procedure with efficiency, skill, techniques to minimize patient discomfort, and attention to the safety of the patient, the resident, and other medical staff. Review of the chart assures that timely documentation of successful and unsuccessful procedures is recorded. Residents document their procedures either in a logbook or electronically. The attending provides confirmation of the above observations in the logbook by his signature. A past electronic evaluation documentation system did not provide for the attending's confirmation of direct observation, but a newly purchased system will. A review of each resident's success in completing and documenting procedures occurs in the resident's biannual meeting.

B. Teaching Attending Performance – Evaluation of the teaching attendings occurs by:

i. residents - Residents evaluate their teaching attending in a written format for each rotation and may provide verbal feedback in their face-to-face evaluation meeting. The written evaluation may remain confidential, but is most commonly returned to

the attending for review. The program director reviews all evaluations and annually provides to each ward attending an aggregate summary of his evaluations.

ii. students – The medical students on a ward service evaluate their teaching attending in a written format and may provide verbal feedback in their face-to-face evaluation meeting. The written evaluations may remain anonymous. The clerkship director collects the evaluations and returns a copy of each to the attending.

C. Program Performance – Residents provide verbal or written feedback regarding the residency program at the completion of their rotation and any time to their ward attending or to a program director, deputy program director, or associate program director. The program director and deputy program director maintain a bi-monthly interactive feedback session soliciting resident concerns. Additionally, at the biannual meeting with each resident, the program director, deputy program director, or associate program director actively solicit resident comments about the program as part of the meeting's agenda. Residents may also report concerns or problems directly to the institution's graduate medical education office.

VI. Tiered Objectives Organized by Competency

Note: Some objectives may address more than one competency. Such instances are identified with the additional competencies noted in italics following the item. These objectives are in concordance with the Temple University General Medicine Inpatient Ward Service Curriculum.

Where tiered objectives are listed, it is expected that residents in each year will have mastered the competencies outlined for the previous levels of training. PGY-1 residents do not rotate at Fox Chase Cancer Center on the inpatient service.

A. Patient Care

i. History taking

All residents will:

(a) efficiently elicit a thorough, hypothesis-driven history from the patient or patient's representative.

(b) incorporate verbal and non-verbal techniques in their history taking to promote disclosure of relevant information and maintenance of patient comfort.

(c) use translator services appropriately.

(d) include in the information they elicit their patients' emotional feelings about their illnesses and their beliefs about its causes and remedies. (*interpersonal and communication skills*)

ii. Researching medical records

All residents will:

(a) supplement the history obtained from the patient with appropriate information gleaned from medical records, including but not limited to labs, radiologic studies, electrocardiograms, echocardiograms, stress tests, pulmonary function tests, pathology, records of previous inpatient admissions, records from outside institutions, and records from the primary care physician.

(b) understand how to access the variety of information systems in the hospital to retrieve appropriate past medical records and studies.
(c) understand the process by which outside medical records are obtained. (*system-based practice*)
(d) routinely identify and prioritize the important records to be obtained.
(e) know how and when to access the records of the department of public health. (*system-based practice*)

iii. Physical examination – Residents at all levels will perform a systematic, comprehensive physical examination and be able to report the physiologic and anatomic bases of normal and abnormal findings. The physical exam will be obtained discretely, with attention to patient comfort and privacy.

iv. Charting – Residents at all levels will record data in the medical record in a thorough, legible, systematic manner and at regular, timely intervals. Such documentation will include not only documentation of the facts, but will also reflect the reasoning underlying the resident's decision making. (*interpersonal and communication skills*)

v. Procedures
1. All residents will:
(a) understand the indications, contraindications, necessary equipment, specimen handling, potential complications, and patient after-care of commonly performed procedures. Procedures will be performed with attention to the safety of the patient, the resident, and other medical staff. Techniques to minimize patient discomfort will be utilized. (*medical knowledge*)
(b) obtain appropriate informed consent and will assist in patient decision-making. Timely documentation of successful and unsuccessful procedures will be recorded in the chart. (*interpersonal and communication skills*)
(c) achieve and maintain basic cardiac life support and advanced cardiac life support certification. (*medical knowledge*)
(d) hone their own procedural skills.
(e) be willing and able to assist medical students in skill acquisition. (*professionalism*)
2. PGY-3 residents will ensure that they have mastered the procedures required for certification by the ABIM. (*practice based learning and improvement*)

vi. Medical decision making, clinical judgment, and management plans
1. All residents will:
(a) interrelate findings and disease processes, including the correct interpretation of
(i) symptoms and abnormalities on physical examination
(ii) routine lab studies, including the basic metabolic panel, liver function tests, complete blood count, peripheral blood smear, coagulation studies, urinalysis, and arterial blood gases
(iii) microbiologic studies, including gram stains and culture results
(iv) chest roentgenograms and abdominal plain films
(v) electrocardiograms
(vi) pulmonary function tests (*medical knowledge*)
(b) be able to create a focused, thorough, appropriately prioritized problem list.

(c) be able to suggest a diagnostic and therapeutic plan of action based on their problem list that reflects the identified priorities and respects patient preferences.
(d) utilize evidence-based strategies or practice guidelines whenever applicable. Cost effective strategies will be emphasized. (*system-based practice*)
(e) understand the risks and benefits of the proposed diagnostic studies and therapeutic interventions. Particular attention will be given to communicating to the patient those risks and benefits and ensuring that the patient has a clear understanding of the course of action. (*interpersonal and communication skills*)
(f) understand how to evaluate the success of therapeutic interventions, including measurement of the desired response and recognition of complications.
(g) be able to identify alternate strategies to the one they have proposed and discuss the risks and benefits of those strategies.
(h) be able to identify the limitations in the execution or interpretation of proposed diagnostic studies. (*medical knowledge*)
(i) not only have knowledge of the complications associated with therapeutic interventions, but will anticipate them.
(j) identify when consultation of an appropriate specialist can augment patient care. (*system-based practice*)
(k) anticipate when medical care can be completed in a non-hospital setting.
(l) be able to anticipate the likely condition of the patient at the conclusion of the hospital stay and identify and arrange for the resources necessary to ensure safe transition of care to the next setting. (*system-based practice*)

2. PGY-3 residents will make decisions in situations in which there is insufficient or ambiguous literature to make definitive recommendations.

B. Medical Knowledge

i. All residents will:

1. recall the approach to therapy for common diagnoses, including the information that is necessary to guide clinical decision making.
2. be able to deliver the initial care in medical emergencies such as hypotension, acute respiratory distress, hyperkalemia, and unresponsiveness.
3. supplement their medical knowledge with information from sources including textbooks, review articles, and on-line databases. They will begin to understand and apply information from current medical literature. (*practice based learning and improvement*)
4. be able to recall an expanded differential diagnosis including common and uncommon causes of the patient's problems.
5. recall the specific indications and contraindications for the treatment of common diagnoses.
6. recall both the typical and unusual presentations of diseases common to internal medicine.
7. understand the indications for hospitalization of patients who present to the hospital. (*system-based practice*)
8. recognize the indications for transfer of patient care to an intensive care unit setting. (*system-based practice*)

9. begin to critically evaluate current medical literature as it applies to the care of their patients. (*practice based learning and improvement*)
10. recognize cultural barriers to treating disease and maintaining good health. These barriers will be addressed with sensitivity and with respect for the patient's beliefs. (*interpersonal and communication skills*)

ii. PGY-3 residents will:

1. be able to recall a comprehensive differential diagnosis, including rare causes of the patient's problems.
2. recall the various options for treatment of common diagnoses and understand the specific indications and contraindications for each of those options.
3. recognize presentations of common diseases usually cared for by non-medicine services. The resident will recall usual first line treatments for those diseases.
4. actively access and critically evaluate current medical literature as it applies to the care of their patients. (*practice based learning and improvement*)

C. Practice Based Learning and Improvement

i. All residents will:

1. identify their own weaknesses compared to the skills of their peers.
2. be receptive and responsive to constructive criticism.
3. routinely reevaluate their clinical decision-making when unexpected negative outcomes are encountered.
4. continuously seek to expand their medical knowledge. (*medical knowledge, professionalism*)
5. reflect on the types of mistakes they have made in the care of their patients and look for common themes among those mistakes.
6. understand how their personal beliefs, biases, emotions, response to stress, and approach to decision making may have an impact on the quality of the medical care they deliver.

ii. PGY-3 residents, with the knowledge gained from self-reflection, will display vigilance for and develop strategies to overcome the types of mistakes they are prone to make based on their personal beliefs, biases, emotions, response to stress, and approach to decision making.

D. Interpersonal and Communication Skills

All residents will:

1. be effective listeners in medical and professional encounters, including recognizing verbal and non-verbal cues from the people with whom they interact.
2. communicate respect, empathy, and concern in their encounters.
3. write legibly in all situations.
4. remain quickly, reliably, and easily accessible by beeper when on duty. (*professionalism*)
5. provide effective and detailed sign-out to allow covering physicians to knowledgeably and efficiently continue their patients' care. (*system-based practice*)
6. effectively coordinate the transition of patient care from inpatient to non-hospital settings, with particular attention given to communicating with the primary care physician. (*system-based practice*)

7. provide constructive feedback regarding the residency program. (*professionalism, system-based practice*)
8. model effective and respectful relationships with patients, students, peers, supervisors, and other medical and administrative workers.
9. model skills for dealing with difficult patients and stressful situations.
10. model skills for handling situations of unprofessional behavior by other health care professionals.
11. be able to direct sensitive or difficult interactions with patients or their representatives, including the delivery of bad news or initiation of end-of-life discussions.
12. manage and direct the students on the service to ensure timely and effective completion of the tasks of patient care.
13. anticipate duty hours issues and proactively develop a plan that ensures compliance of all team members with the requirements. (*system-based practic*e, *professionalism*)
14. effectively educate the students and intern in such a way as to improve their understanding and practice of internal medicine and to promote their professional success. (*professionalism*)

E. Professionalism

All residents will:

1. comply with all locally and nationally accepted standards of behavior for health care professionals, including but not limited to those mandated by law.
2. in all activities demonstrate a commitment to excellence.
3. in general, put the needs of their patients ahead of their own.
4. ensure adequate attention to their own needs, particularly those of rest, sleep, and personal relationships, to optimize their readiness to provide the highest quality care for their patients.
5. take ownership of the well being of the patients assigned to their care, no matter how brief the assignment.
6. act as patient advocates.
7. show respect at all times for the unique and individual perspectives of patients, patient families, and other health care professionals.
8. be committed to participating in the organized curricular program offered by the residency. This participation includes attendance and, when appropriate, making contributions to enhance the education of others.
9. manage work efficiently to allow attendance at educational conferences.
10. respond to unpleasant patient or professional interactions with restraint, insight, and empathy. The betterment of patient care will remain the priority in all attempts at conflict resolution. (*interpersonal and communication skills*)
11. reflect on their own behavior after difficult or unpleasant interactions. (*practice based learning and improvement*)
12. actively seek to provide feedback in a constructive fashion for the students and interns with whom they work. (*interpersonal and communication skills*)
13. be willing to challenge the accepted plan of care when their professional judgment differs from that of other providers.
14. act as a role model for students and fellow residents.

F. System-based Practice

All residents will:

1. utilize hospital resources to deliver effective, efficient, high quality patient care.
2. remain sensitive to health care costs while providing high quality care.
3. provide timely dictation of the patient records assigned to them. Note that PGY-1 residents are not assigned charts for dictation until they have completed 6 months of their training. (*professionalism*)
4. be cooperative in complying with performance improvement initiatives developed by the hospital administration. (*practice based learning and improvement, professionalism*)
5. identify resources at the time of discharge that will benefit the patient in their post-hospital care. The resident will work with the case manager and social worker to integrate these resources into the discharge plan.
6. identify areas where the process of patient care can be improved.
7. be participants in the improvement of hospital-based care and of residency education by actively contributing their insights, opinions, energies, and leadership. (*professionalism*)