# Goals and Objectives for Pediatric Hematology/Oncology Fellows

# **Goals of the Program**

The clinical experience in Pediatric Hematology/Oncology involves patients who have a broad variety of hematologic-oncologic problems. The subspecialty fellow in Pediatric Hematology/Oncology must understand the difficult nature of dealing with patients and families involved with life-threatening and chronic disorders. The subspecialty fellow will develop skills to: provide compassionate, appropriate and effective treatment by communicating effectively with both patients (considering developmental stage) and their families; obtain information essential for the understanding of Hematologic and Oncologic disorders in children (including how the past and family history may influence the disorder); Use the most up to date information (including information technology) to make decisions about diagnostic and therapeutic interventions which are sensitive to the needs and beliefs of the patient; Carry out the management plans; and educate and counsel patients and their families about the varied aspects of their disorders, including the nature, purpose and risks involved with treatment, end of life issue when appropriate, and day to day living with chronic Hematologic and Oncologic disorders.

The Objectives of the training program in Pediatric Hematology/Oncology are to prepare the fellow for an academic career in Pediatric Hematology/Oncology and to assist the trainee in acquiring a faculty position compatible with his/her clinical and research strengths and goals. When successfully completed, this program will provide trainees with the clinical and academic skills to become Board Certified in Pediatric Hematology/Oncology, and to be competitive for available faculty positions. The focus of the program will be on training of the fellow and not on filling service needs.

The Pediatric Hematology/Oncology fellow will develop knowledge of the biologic basis for Cancers and Hematologic disorders including the epidemiology of the disorders and how this information applies to patient diagnosis and care.

The subspecialty residents will become familiar with all aspects of chemotherapy as well as the pertinent aspects of surgical therapy and radiotherapy in managing patients with malignant diseases. They also must become familiar with the diagnosis, management of complications, and treatment of infections in the compromised host and indications and procedures for transfusion of blood components, including apheresis, plateletpheresis, and stem cell harvest and infusion. The Trainee will also become knowledgeable in the methods of physiologic support of the cancer patient, including parenteral nutrition, control of nausea, and management of pain.

The pediatric oncology trainee will become familiar with the staging and classification of tumors, the application of multimodal therapy, the epidemiology and etiology of childhood cancer, how to make appropriate observations, and how to keep accurate patient data.

The subspecialty resident will become familiar with those disciplines that interface with Pediatric Hematology/Oncology such as Radiation Oncology, Surgery, Blood banking, Pathology (including Hematopathology), and diagnostic radiology.

The trainee will become familiar with the basic mechanisms of action of chemotherapeutic agents, the molecular biology of cancer (including cytogenetic), the immunology of cancer and the principles of cellular growth and proliferation.

The experience will include learning to function as a member of a multidisciplinary team serving patients with cancer and chronic hematologic disorders to develop a method for patient directed care.

The trainee will learn to access the data bases of the Children's Oncology Group, the National Cancer Institute, Medline, the National Institutes of Health, and other available internet resources in understanding the nature and treatment of the disease processes seen. The experience will include instruction in the evaluation and interpretation of recovered data and clinical research using the principles of evidenced based medicine and a life-long approach to learning. The fellow will learn the statistical basis for clinical research, including the interpretation of clinical trial data, and how past clinical trials impact on the design of the current treatment protocols available from the above named data bases. This will be done through the use of information technology and on-line medical information.

The subspecialty resident will participate in the activities of the Pediatric tumor board as a forum for the development of an understanding of the importance of literature review, Evidence Based Medicine and the review of past patient experiences (practice based learning) in making decisions about patient management.

The subspecialty resident will develop and have experience in support of the patient, family, and staff in dealing with terminal illness and the principles involved in palliative care.

The subspecialty resident will learn to function as a consultant by being "on call" for Oncologic and Hematologic consults.

The subspecialty residents will work to develop advanced skills in communication and counseling, including the recognition and management of psychosocial problems in pediatric patients.

The subspecialty resident will demonstrate communication skills that facilitate effective exchange of information with both patients in a developmentally appropriate manner, the patient's family in a manner that respects the families' individual ideas and values, and coworkers to allow for the development and management of an effective health care team.

The subspecialty resident will demonstrate awareness and responsiveness to the health care system including peers and coworkers, demonstrating the responsibility and reliability that indicates professional standards. The resident will remain sensitive and responsive to differing points of view and be able to accept criticism.

The subspecialty resident will learn to participate in the health care system that is diverse in its approaches to health care delivery, including the need to evaluate cost effectiveness of therapies.

The subspecialty resident will learn the importance of longitudinal follow-up of patients through participation is continuity clinics containing patients with both oncologic and Hematologic disorders. The subspecialty resident will participate in comprehensive clinics for children with Sickle Cell Disorders and children with Coagulation abnormalities.

# **Clinical Fellows (First Year of Fellowship)**

The first year of the fellowship is focused on intensive clinical training in the field of pediatric hematology and oncology. Time will be divided as follows:

- 1. General hematology/oncology (five and one-half months)
- 2. Stem cell transplant and Neuro-oncology (two and one-half months)
- 3. Outpatient and elective time (three months to include 3 weeks of vacation).
- 4. Hematology (1 month)

Rotation-specific goals, objectives, and responsibilities are described below and are noted more specifically on the Heme/Onc portal. The specific competencies expected are contained within the Core Competencies for Pediatric Hematology/Oncology.

## **Fellow Continuity Clinic:**

All fellows are assigned a weekly continuity clinic in which they will see their primary patients. The fellow will also be available in clinic to perform bone marrow aspirates and biopsies and lumbar puncture with intra-thecal medication administration. The fellow will remain in clinic until 4 PM or until dismissed by the clinic attending physician. The fellow will remain available to see both

scheduled and unscheduled patients presenting to the clinic as needed. All clinic notes must be completed within 24 hours of seeing the patient.

# General hematology/oncology

Goals – To learn and practice the optimal care and management of complex patients with hematologic and oncologic problems using a team approach. We use the core competency approach to guide our learning and patient care.

# Responsibilities:

- Coordination of patient assessment and problem management during morning and afternoon rounds with the aid of the attending physician, nurse practitioners, social services, nutrition services and residents.
- 2. Responsibility for full knowledge of all patients covered by the inpatient attending. The service is divided into the Medical service (Resident) (new diagnoses and ill patients) and routine chemotherapy service covered by the back-up attending along with the nurse practitioner. On weekends the inpatient attending is responsible for the chemotherapy patients along with the regular "medical" patients
- 3. Initial evaluation of all inpatient consultations after completion by the resident, to be reviewed with the attending physician.
- 4. Attending his/her regularly scheduled clinics (once weekly) after reviewing the in-patients with the Attending physician.
- 5. The attending physician will serve as back-up for all patients acquired by the fellow during his/her inpatient months, and may elect to handle particular consultations without the fellow, as dictated by overall workload.
- 6. The fellow and attending physician will determine who is to be responsible for review and annotation of daily inpatient notes initially written by the resident and nurse practitioner staff. The attending physician also responsible for the review, critique and annotation of all inpatient notes dictated or reviewed by the fellow and is responsible for Co-signing all notes. All notes must be completed on the day of service.

Since the inpatient fellow has continuity clinics one day per week that supersedes their inpatient service responsibilities, the following delineates how the time should be divided.

The time of rounds is to be determined by the attending physician, but typically is 8:30. Prior to rounds, the fellow should collect laboratory values and see new patients, ICU patients, and any patients with a significant change in status. Laboratories should be obtained and important abnormalities should be addressed prior to rounds. **On the fellow's assigned clinic day,** they should

complete their pre-round responsibilities and sign out to the attending before going to clinic. **Unless excused by the attending, they should remain in rounds until 9 am**. During clinics, the attending will assume primary care of the service. However, after completion of clinics, the fellow should report to their attending physician to resume primary responsibility for the service.

## Stem cell transplant:

Goals – To learn and practice the optimal care and management of complex patients that are in preparation for, presently receiving, or after stem cell transplant using a team approach. We use the core competency approach to guide our learning and patient care.

# Responsibilities:

- 1. Coordination of patient assessment and problem management during morning rounds with the aid of the attending physician.
- 2. Coordination of patient assessment and problem management for all Stem Cell outpatients with the aid of the attending physician.
- 3. Evaluation of consultations with the attending physician and transplant coordinator.
- 4. Research relevant literature for all consults seen
- 5. The above general principles as applies to the inpatient service also apply to the Stem Cell Transplant service.

During the BMT rotation the fellow should observe and participate in:

- 1) BM harvest
- 2) Observe leukopheresis
- 3) Observe infusion of stem cells
- 4) Observe BMT consultation

The attending physician will serve as back-up for all patients cared for by the fellow during his/her stem cell months, and may elect to handle consultations without the fellow, as dictated by overall workload.

Since the stem cell transplant fellow has continuity clinic and Neurooncology clinics during these months, the following delineates how the time should be divided.

The time of rounds is to be determined by the attending physician, but typically is 9:00. The fellow is expected to arrive at 7 am to take sign-out from the moonlighter. Prior to rounds, the fellow should collect laboratory values and see all patients including those in the ICU. Fellows should be in rounds, participating in treatment planning. The fellow is responsible for all daily notes. After rounds, the fellow is expected to assume primary responsibility for patient care until sign-out at 5pm. Any issues requiring physician input should first be addressed by the fellow. Any departure from these expectations is at the discretion of the attending physician for that day.

On the fellow's assigned clinic day, they should complete their pre-round responsibilities and sign out to the attending before going to clinic. Unless excused by the attending, they should remain in rounds until 9 am. On Neuro-oncology clinic days, the fellow is expected to complete these same responsibilities, but remain in rounds until 10am. During the time the fellow is in primary continuity clinic or Neuro-oncology clinic, the Stem Cell attending will assume primary care of the service. However, after completion of clinics, the fellow should report to their attending physician to resume primary responsibility for the service.

# **Outpatient Months:**

Goals – To learn and practice the optimal care and management of hematology patients that are primarily treated in the outpatient setting. To master procedures necessary for the practice of pediatric hematology- oncology. To master skills and knowledge from subspecialists that work closely with us in the care of pediatric hematology, oncology, Neuro-oncology, and stem cell transplant patients.

During the time the fellow is assigned to the ambulatory clinic the following clinics will be attended by the fellow.

- 1. Comprehensive Sickle Cell Clinic (held on the first and third Thursday afternoons of each month)
- 2. Comprehensive Hemophilia Clinic (held on the second Friday morning of each month)
- 3. Neuro-Oncology Clinic (held every Wednesday)
- 4. Off-site Comprehensive Sickle Cell Clinics as scheduling allows and at the discretion of the responsible attending physician (held two Fridays per month)

To supplement exposure to the following areas obtained during regular conferences and patient care the fellow can attend the following areas during outpatient rotations or during year 2 and 3:

**Radiation Oncology** — report to Dr. Kimberly Keene in the Department of Radiation Oncology. (See the specific learning objectives for this week).

**Special Coagulation** — Report to Dr. Marisa Marques in the Department of Pathology (see the specific learning objectives).

**Blood Banking** - – Report to the Department of Pathology at Children's Hospital (see the specific learning objectives).

**Pediatric pathology** — Report to Dr. David Kelly in the Department of Pathology (see the specific learning objectives).

## Procedures:

Subspecialty residents must become proficient in the current diagnostic procedures of hematology and oncology. These include (a) the performance and

interpretation of bone marrow aspiration and biopsy, (b) lumbar puncture with evaluation of cerebrospinal fluid, (c) microscopic interpretation of peripheral blood films, and (d) interpretation of all hematologic laboratory diagnostic tests, (e) The harvest of bone marrow and stem cells.

Competence in performance of procedures is an absolute requirement of the pediatric hematology/oncology fellowship. When assigned to the outpatient clinics and ambulatory rotations, the fellow should perform all possible procedures (bone marrow aspirations and biopsies and lumbar punctures with intrathecal chemotherapy administration) in the hematology/oncology clinic with the oversight of the attending physician and the nurse practitioners. It is expected that the fellow will perform:

20-30 BMA,

10-15 Bone marrow biopsies

15-20 LP with IT medication administrations

All procedures must be placed into a log on the web portal or maintained by the fellow.

# **Chemotherapy Orders:**

The fellow should write as many chemotherapy orders as possible to familiarize themselves with this process. For the first six months of the fellowship the fellows must have all chemotherapy orders signed off by an attending physician using the standard chemotherapy order form for clinic. After that time a review will be done to assess errors. At that time the decision will be made if the fellow may have their orders countersigned by any attending physician or Oncology Nurse Practitioners (as is the practice for all faculty and other fellows).

Responsibilities in the outpatient clinic: During the fellows regularly scheduled clinic their primary responsibility is to see the patients which they are following as the primary Oncologist or Hematologist. All patients followed as primary patients should be recorded in the fellow's patient log. During the specific outpatient blocks (on the schedule) the fellow will see outpatient hematology consults with the "Back-up" attending, help to see unattached patients in the clinic and attend the above noted clinics. All new patients which the fellow sees should be recorded in the fellow's patient log.

## **New Patient Accrual and Continuity of Care:**

The fellow will become the primary physician for all new oncology and hematology patients presenting during his/her inpatient months. The inpatient attending working with the fellow at the time of the patient's presentation will serve as the back-up primary physician for the fellow's

patients. The fellow and attending physician may jointly decide for the fellow not to pick up a particular patient as dictated by the current variety of the fellow's patient population. If the fellow joins the faculty after completion of the fellowship program, he/she will become the sole primary physician for all patients he/she was responsible for during fellowship. If the fellow leaves the division after completing the program, the back-up attending will become the sole primary physician for all patients he/she shared with the fellow. The fellows will be required to keep a log of all patients and their diagnoses. The fellow will work with the attending physician to develop a balance of disease types for them to follow. If a fellow has too many of one type of patient that patient would then be followed by the attending physician. The fellows are expected to follow no more than **30 new oncology** patients. Once the fellow has taken responsibility for 30 oncology patients they may "pick up" additional patients if a new patient presents to the service that they have not cared for before. The fellow should expect to pick up no more than 3 patients during each inpatient block.

During the first year of the fellowship, the fellow will have regularly scheduled clinic once a week. Specific patients will be scheduled to the fellow's clinic day. If the fellow is unable to see his/her patient (due to inpatient/stem cell responsibilities, scheduling conflicts with ancillary activities, or vacation), the assigned attending will see the patient in place of the fellow. If the assigned attending is unavailable, another faculty member in clinic at that time will serve as temporary assigned attending as the fellow's needs require. The fellow will sign out all patients during time they are away from the clinic in a written format and have spoken to the attending physician or fellow who will see their patients during their absence.

All major decisions regarding patient care and all decisions involving a change in therapy or discontinuation of therapy must be discussed with and approved by the back-up attending.

## **Hematology Rotations:**

Goals – To learn and practice the optimal care and management of hematology patients that are primarily treated in the outpatient setting. To master skills and knowledge from subspecialists that work closely with us in the care of pediatric hematology patients.

During the time the fellow is assigned to the hematology rotation the following clinics will be attended by the fellow.

1. Comprehensive Sickle Cell Clinic (held on Thursday afternoons)

- 2. Comprehensive Hemophilia Clinic (held on the second Friday morning of each month)
- 3. Off-site Comprehensive Sickle Cell Clinics (held on selected Fridays)

#### Procedures:

Subspecialty residents must become proficient in the current diagnostic procedures of hematology and oncology. These include (a) the performance and interpretation of bone marrow aspiration and biopsy, (b) microscopic interpretation of peripheral blood films, and (d) interpretation of all hematologic laboratory diagnostic tests.

Competence in performance of procedures is an absolute requirement of the pediatric hematology/oncology fellowship. When assigned to the hematology rotations, the fellow should perform all possible procedures (bone marrow aspirations and biopsies) in the hematology/oncology clinic with the oversight of the attending physician and the nurse practitioners. They are also expected to review peripheral blood smears with the attending physician and participate in the management of patients on chronic transfusion and red cell pheresis.

Responsibilities in the outpatient clinic: During the fellows regularly scheduled clinic their primary responsibility is to see the patients which they are following as the primary Oncologist or Hematologist. All patients followed as primary patients should be recorded in the fellow's patient log. During the specific outpatient blocks (on the schedule) the fellow will see outpatient hematology consults with the "Back-up" attending, help to see unattached hematology patients in the clinic and attend the above noted clinics. They will answer outside phone calls from 8am-5pm on all days except their primary clinic day and on days when they are offsite. They will review new patient referrals with their back up attending and formulate an appropriate management plan. All new patients which the fellow sees should be recorded in the fellow's patient log.

# **Neuro-Oncology:**

Goals – To learn and practice the optimal care and management of Neurooncology patients that are primarily treated in the outpatient setting.

## Responsibilities:

 The fellow will attend the Neuro-oncology clinic by 10 am on Wednesdays when assigned to the Stem Cell/Neuro-Oncology rotation. The fellow is expected to see any new patient consults presenting to the clinic on those days.

- 2. To see all available Neuro-oncology patients and participate in their care and management with the help of Drs. Reddy, Alva, and Friedman.
- 3. To perform some Neuro-oncology consults during their Neuro-oncology and outpatient months.
- 4. For inpatient Neuro-oncology consults, the Neuro-oncology attending will check the fellow's schedule when a new Neuro-oncology consult is called in to determine if a fellow is "on" for new Neuro-oncology consults (ambulatory months). The attending Neuro-oncology physician will page the appropriate fellow and inform them of the consult and determine whether it is possible for the fellow to see the Neuro-oncology consult.
- Each fellow will participate in the evaluation of at least 10 Neurooncology patients in clinic or as a new consult. These patients will be added to the fellow's patient log, but will be followed in the Neurooncology clinic.

#### Call:

Inpatient Service:

While on the inpatient service, the fellow will take beeper call from home every other night, rotating with the inpatient attending physician. The inpatient attending will serve as back-up for the fellow on the nights he/she is taking call. The fellow may make decisions appropriate for their level of training and knowledge without immediately contacting the attending. However, if they are uncertain about how to deal with an issue, they must contact the attending to seek their advice. The fellow is NEVER on call without a back-up attending that is readily available. Call responsibilities will include:

- 1. Outside physician calls regarding hematology or oncology patients
- 2. TCHA Emergency Room calls regarding hematology or oncology patients
- 3. Cross-coverage calls on current hematology and oncology inpatients
- 4. Urgent inpatient consultations at TCHA or the RNICU at UAB
- 5. Parent calls from hematology patients

Call responsibilities will NOT include parent calls from oncology patients that are handled by the oncology nurses and nurse practitioners.

Call will be taken from home, but it is expected that the fellow would come in to evaluate any patients transferred to the PICU, to be with the family of a patient who has just died, and to evaluate new patients admitted with a high risk for complications before morning rounds.

All calls must be recorded in the Logician record or as a saved note as per the telephone call policy.

A log of all calls with the advice given will be sent the day after the call to the attending physician who will keep a copy of this as a permanent record. The

attending physician will review with the fellow the advice given and give feedback to the fellow and the fellowship director about any advice that they disagree with.

#### SCT Service:

While on the Stem Cell service, the fellow is responsible for being on the unit from 7:00 am to 5:00 pm Monday-Friday, and 7:00 am to 12:00 pm on Saturday and Sunday. A moonlighter physician provides coverage on the unit from 5:00 pm-7:00 am on Monday-Friday nights, and from 12:00 pm-7:00 am on Saturday and Sunday nights.

The fellow will take beeper call from home as first call from the moonlighter on Monday-Thursday nights, and every other Friday-Sunday weekends. The Stem Cell attending will serve as back-up or second call for the fellow. The fellow may make decisions appropriate for their level of training and knowledge without immediately contacting the attending. However, if they are uncertain about how to deal with an issue, they must contact the attending to seek their advice. The fellow is NEVER on call without a back-up attending that is readily available. The Stem Cell attending will provide first call for those Friday-Sunday periods where the fellow is not taking call in which case the fellow will be completely off. While on call it is expected that the fellow would come in to evaluate any patients transferred to the PICU, to be with the family of a patient who has just died, and to evaluate new patients admitted with a high risk for complications before morning rounds.

# **Outpatient and Hematology months:**

No nighttime home call during the first year of the fellowship.

## Time Off and Duty hours:

During inpatient and stem cell transplant months, the fellow has every other weekend entirely off from Friday evening through Monday morning. In addition, during the week, the fellow has every other night off with no call. There is no call during first year outpatient months. The fellow should not exceed 80 hours per week of work averaged over a four week period or 30 hours of continuous work time. The fellow will have 10 hours of rest between work shifts. Attention to fellow fatigue and ways to prevent fatigue are crucial components of the fellowship. See specific policies on Work Hours and fatigue on the web portal.

## Vacation/Leave:

All pediatric hematology/oncology fellows receive three weeks of vacation. These times are assigned with the fellows requests observed whenever possible.

# Hematology/Oncology specific conferences:

The fellow will attend all the following conferences during the first year of the fellowship:

1. Fellows/Research Conference –Tuesday mornings at 7:30. There is a mix of didactic presentations, leukemia conferences, research presentations, and hematology presentations. Active participation by fellows is required.

Second and third year fellows will present their research progress at least two times each year as a review of their research progress. Their scholarship oversight Committee members should be present at these conferences.

2. Tumor Board - Every Wednesday from 12:00-1:00 pm in the Surgical Commons. Formal presentations by the fellows that include the case history, radiographic (with the radiologist), and pathologic features (with the pathologist), a review of the literature and an **evidence based assessment** of the patient problem and treatment plan will be presented:

5 times in year one

- 3 times in year 2 and 3
- 3. Morphology Rounds Mondays and Wednesdays at 7:30-8:30.
- 4. Neuro-Onc Tumor Board- every 3<sup>rd</sup> Monday from 3:30-4:30
- 5. Faculty Research Conference- every 2<sup>nd</sup> Monday from 3:30-4:30

## Moonlighting:

Due to conflict with ACGME work-hour limits and afternoon rounds, moonlighting is prohibited while on the inpatient service. Moonlighting in the Stem Cell unit may be permitted during stem cell months with the advance permission of the Stem cell attending physician for that month. Moonlighting during outpatient months is permitted to the extent that it does not interfere with fellowship responsibilities or work hour rules. See policy on Moonlighting on the web portal.

#### **Maternity Leave:**

See Maternity/Paternity leave policy on the web Portal.

# Research Fellows (Second and Third Year of Fellowship)

The second and third years of fellowship are designated for research training, so the amount of clinical responsibility decreases considerably, with approximately 70% of the fellow's time "protected" for research/scholarly activities.

# Research Project:

During the second half of the first year of fellowship, the fellow will identify a mentor for his/her research activities during the research years of the program. A major project should be identified by the fellow and mentor prior to July 1st of the fellow's second year. Research may be laboratory-based, translational, epidemiologic, therapeutic, descriptive, or interventional. Research mentors may be faculty from within the division of Pediatric Hematology/Oncology, from the Department of Internal Medicine-Hematology/Oncology, Bone Marrow Transplantation, or other areas as approved by the program director and division director. It is required that the fellow produce a publishable manuscript or detailed research report based on his/her major research project before completion of the fellowship program.

Scholarship Oversight Committee – Each fellow is assigned a scholarship oversight committee (SOC) to oversee research progress. This committee includes the mentor, one member of the pediatric Heme/Onc division, and two other faculty members that are familiar with the type of research that fellow is undertaking. The committee is charged with monitoring the fellow's progress, advising the fellow in their research, and providing career guidance. This committee must meet twice each year with written reports to the fellowship director.

# Patient Care Responsibilities during year 2 and 3: Inpatient Service:

The fellow will spend two weeks on the inpatient service and two weeks as the back-up/consult attending during his/her third year of fellowship with a back-up attending available. The attending physician's role will be much less "hands-on" than when supervising a first year clinical fellow. When possible, a second or third year fellow and first year fellow will not be on the inpatient service simultaneously, to allow as much experience "running the show" as possible for all fellows. The fellow will also cover the inpatient service 6 weekends throughout the year.

## Stem Cell Service:

The fellow will have no scheduled times to rotate on the Stem Cell service during the second and third years of the fellowship. If the fellow desires additional Stem Cell training, additional rotations may be coordinated with Stem Cell faculty during times when no clinical fellow is on the Stem Cell service.

# Outpatient:

The fellow will see all his/her patients (hematology, oncology, and Neurooncology) in one day of clinic each week. The assigned attending for all major decisions will remain the same for the fellow's patients, but the faculty sharing clinic time with the fellow will assume greater responsibility for minor questions which may arise regarding acute patient care.

The fellow is not expected to spend time in clinic during his/her second or third year other than his/her regularly scheduled clinic day. Patients which present to the clinic on days other than the fellow's regular clinic day will be seen by another physician in clinic, unless specifically arranged differently by the fellow.

## **New Patients:**

The third year fellow will accrue new patients during the two week inpatient block and the back-up/consult block during those years. Exceptions to this rule include evaluation of new patients the fellow discussed with a referring physician while taking beeper call. At the fellow's discretion, the fellow may agree to see new outpatient hematology patients for the "back-up" attending to be evaluated on his/her regular clinic day with the "back-up" attending physician serving as back-up.

#### Call:

#### Second year:

During the second year of the fellowship, beeper call will be taken from home on a weeknight once every other week, along with covering one weekend of inpatient service every other month. Call will consist of oncology and hematology parent calls, calls from outside physicians, and TCHA ER. The inpatient attending physician will serve as back-up for all calls. Any calls relating to current inpatients at TCHA should be referred to the inpatient attending physician. If any patients need to be admitted to the inpatient service, the fellow must notify the inpatient physician and discuss the treatment plan with him/her.

#### Third year:

During the third year of the fellowship, the fellow will take call on the inpatient service while he/she is rotating as attending physician. Call will be every night for the half-month block. The back-up attending will serve as back-up call for the third year fellow, should any questions arise.

The fellow will also take call one weekend on the inpatient service every other month (6 weekends/year).

## In training exam:

The fellows are required to take the American Board of Pediatric hematology/Oncology in-service exam yearly. Registration is through the ABP web site. The cost for this exam will be reimbursed. https://www.abp.org/ABPWebSite

# **Moonlighting**:

Moonlighting is permitted during the majority of the second and third years of the fellowship to the extent that it does not interfere with call or clinical responsibilities. Moonlighting is not permitted during the third year inpatient rotations.

# Special Activities and Courses:

Additional training courses open to all pediatric fellows are offered periodically by the Department of Pediatrics and other entities, varying in meeting times and content. Fellows may be required to attend some or all of these training courses at the discretion of the program director.

# Meetings:

Each fellow will attend meetings as indicated by research activities or presentations. If a fellow has a paper accepted for presentation at a meeting, the Division will work to pay the fellow's way to the meeting if the research mentor does not provide these funds. This must be approved by the division director prior to submitting an abstract.

# Memberships:

The division will reimburse any fellows wishing to become members of ASH, ASPH/O, and ASCO as trainee members. Other memberships are optional and may be indicated based on research activities. Reimbursement for other memberships will be determined on a case-by-case basis.

## Books:

The division will provide Online access to "Hematology of Infancy and Childhood" and Oncology of Infancy and Childhood" to all incoming fellows. Subscriptions to Blood and Pediatric Blood and Cancer are included with memberships to ASH and ASPH/O.

# **Lines of supervision**

## Inpatient and stem-cell transplant

When on inpatient service, the fellow is directly supervised by the attending on-service. In general, the fellow will round directly with the attending and the remainder of the team, although variations are permitted. The fellow may make decisions that they are adequately trained for, but the attending will supervise and oversee all such decisions and be ultimately responsible for all

decisions. The attending should directly assume responsibility if the fellow is not yet qualified to make specific decisions. In the unusual instance where an attending must be unavailable for any period of time, a substitute attending must be appointed.

# Outpatient service

For each patient that the fellow assumes primary responsibility for in the outpatient setting, an attending physician is appointed. Usually this is the attending physician working with the fellow at the time the patient is diagnosed. The same responsibilities for inpatient supervisory responsibilities apply to outpatient attendings. For day-to-day decisions, an appropriate substitute attending may perform this supervisory role.

When the fellow is seeing patients in stem-cell transplant, Neuro-oncology, sickle cell, hemophilia, or other outpatient clinic, the supervisory attending is the attending physician overseeing that clinic for the day.

# Selection, Evaluation, and Promotion of Fellows

Application for the fellowship is through the ERAS and selection is through NRMP national match. Applicants selected for interviews will have satisfactory board scores and excellent letters of recommendation. Applicants will be interviewed by attending physicians and fellows. Rankings are solicited from interviewers. After completion of the interview process, a meeting of the faculty will be conducted to review the rankings and finalize a rank list to be submitted to NRMP. To be eligible for the Pediatric hematology/Oncology training program a resident must complete three years of a certified Pediatric Residency program leading to eligibility for certification by the American Board of Pediatrics.

The fellow will be promoted upon satisfactory completion of each year of the program. This will be based on the evaluations submitted by the faculty and staff through MedHub. Promotion from the first to the second year of the program will depend on the clinical competence of the fellow and that in the opinion of the faculty that the fellow can handle the expected clinical problems encountered by a practicing Pediatric Hematologist/Oncologist. The research mentor and the SOC will assist in determining if the fellow graduates from second to third year and if the fellow has successfully completed the program. See complete promotion policy in the policies section of the web portal.

# **Disciplinary Action**

A fellow who is identified by an attending physician as performing below minimal acceptable standards will meet with the attending physician and the program director to discuss these concerns and to determine the appropriate remediation. If the fellow receives two monthly evaluations of not meeting expectations of performance, he/she will be placed on probation. This will be discussed with the fellow. A third monthly evaluation of "below minimal expectations" will lead to a meeting of the entire pediatric hematology/oncology

faculty to determine if dismissal is indicated. The fellow will have the opportunity to meet with the faculty and to present their case.