Mission
The mission of the Pediatric Hematology/Oncology Fellowship Training Program at the Center for Cancer and Blood Disorders at Phoenix Children’s Hospital is to develop the knowledge base, clinical experiences, professional skills, research exposure, and teaching ability that are necessary for a graduating fellow to assume the duties and responsibilities of an academic attending pediatric hematologist/oncologist.

Overall Level-Specific Goals and Objectives
A. First year of training:
   • Effectively and confidently treat patients in both the inpatient and outpatient settings
   • Thoroughly understand the pathophysiology of hematologic and oncologic processes
   • Formulate, discuss, and implement a treatment plan for a new hematologic or oncologic diagnosis with a patient and/or the patient’s caregivers
   • Order and interpret the results of appropriate laboratory testing and imaging
   • Use appropriate ancillary services, including social work, child life, psychiatry, and psychology to provide the best care for a child undergoing treatment for a hematologic or oncologic disorder
   • Acquire the skill set and experience required to supervise medical trainees
   • Develop proficiency in proper communication and follow-up with referring physicians and families
   • Acquire the skills needed to perform evidence-based literature reviews, critique peer-reviewed journal articles, and apply the data to improve clinical practice
   • Participate in ongoing clinical research trials, such as those offered through the Children’s Oncology Group as well as through other phase-one oncology clinical trial consortia and hemophilia clinical treatment trials
   • Establish a therapeutic relationship with patients and their families
   • Communicate poor patient outcomes and manage end-of-life care for patients and their families, in conjunction with hospice services
   • Appreciate the need for strong interpersonal and communication skills as a member of a multidisciplinary team
   • Understand the benefits of systems-based practice and its role in health-care delivery
   • Maintain a high level of professionalism as part of the daily practice routine
   • Identify and initiate a research project to continue during the second and third years of training

B. Second year of training:
   • All of the goals for the first year of training plus:
   • Strengthen skills as a clinician and an educator
   • Gain an appreciation for practice-based learning and improvement through constant feedback and evaluation of performance, critical literature review, and proper use of information technology
   • Obtain the skills and experience needed to identify a research question, formulate a hypothesis, submit a grant for funding, obtain approval from an institutional review board, use proper research methodology and technique, analyze collected data, collaborate with other investigators, and prepare a manuscript for submission to a well-regarded, peer-reviewed scientific journal for publication

C. Third year of training:
   • All of the goals for the second year of training plus:
   • Complete a research project and prepare a manuscript for publication in a national peer-reviewed journal (in compliance with the American Board of Pediatrics subspecialty requirements)
   • Attend and present research findings at scientific meetings
• Further shape and define their teaching skills while becoming adept at supervising housestaff and medical students
• Continue to sharpen clinical skills and begin to develop a competency level that enables the fellow to manage patients effectively and independently
• Sit for the American Board of Pediatrics subspecialty certifying examination at the completion of their training

Fellows in the Teaching Role
The Pediatric Hematology/Oncology Fellowship Training Program is administered by the Center for Cancer and Blood Disorders at Phoenix Children’s Hospital.

During the first six months of the Training Program, fellows slowly transition into the role of teacher and supervisor of pediatric residents and medical students. This transition is made under close supervision of the hematology/oncology clinical faculty. During the second six months of the first year of the Training Program, fellows take an increasingly independent role in clinical decision making and supervision for pediatric residents and medical students. Attending physicians continue to provide the necessary supervision of fellows during this time period. Also during this time, fellows are expected to become increasingly proficient at procedures and clinical decision making while still assuming direct overall patient care responsibility (with faculty supervision).

The supervisory and teaching role of the fellows is advanced during the second and third years of the training program. This is accomplished, in part, by providing teaching in curriculum development and constructive feedback on fellows’ oral presentations to both pediatric residents and program faculty. In addition, fellows become well-versed in research methods, and they apply this knowledge and experience to their own hypothesis-driven research project under the supervision of clinical research faculty in the training program. Fellows take care not to interfere with the learning objectives of the core pediatric residency program by taking a more supervisory role for the pediatric residents that are covering patients during the hematology/oncology rotation.

Pediatric residents at Phoenix Children’s Hospital gain experience with hematology/oncology diagnoses during a dedicated “subspecialty” rotation during their second year of residency. Most of the patients they encounter (~80%) are on the hematology/oncology service, and the rest of the patients they cover are on the nephrology service or are in the Pediatric Epilepsy Monitoring Unit (PEMU), staffed by members of the neurology service. The pediatric residents take primary responsibility for up to four hematology/oncology patients each during their rotation. These patients are then discussed with the fellow and attending physician during formal inpatient teaching rounds seven days per week. Any extra patients on the hematology/oncology service, including routine inpatient admissions for chemotherapy, are covered by the inpatient fellow, attending physician, and inpatient nurse practitioner. The pediatric residents also provide overnight coverage for the patients (including the patients not on the teaching service, should the need for emergent intervention arise). At this time, pediatric residents do not cover bone marrow transplant patients. The inpatient fellow is expected to participate in teaching rounds as a leader and an educator for pediatric residents, medical students, and all other members of the multidisciplinary team.

Fellows in this training program provide a supervisory role for residents enrolled in numerous categorical residency programs who provide care for patients on the hematology/oncology service. Fellows are expected to provide ongoing communication with patients’ primary care providers when a new diagnosis is made, or when there is a change in a patient’s clinical status or treatment plan. Fellows are expected to give didactic and informal teaching sessions to residents and fellows of all disciplines. Fellows at Phoenix Children’s Hospital also attend a regular monthly research seminar series (in addition to those seminars that are required by the research training curriculum) that is aimed at exposing the fellows to research methods and to enable a dialogue for an exchange of ideas for teaching and research methods across subspecialty training programs.
Fellows also have the opportunity to interact with fellows from other training programs, including dermatology, endocrinology, radiology, and emergency medicine at Phoenix Children’s Hospital, radiation oncology, pathology, and internal medicine at Banner Good Samaritan Regional Medical Center, and pathology, transfusion medicine, and adult hematology/oncology at the Mayo Clinic Hospital. During their research experience, fellows interact with PhD degree candidates and post-doctoral candidates working in the laboratory setting.

Clinical Experience

A. First Year

The first year of subspecialty training exposes the fellows to all aspects of clinical care of the general hematology/oncology patient and bone marrow transplant patient. This training is accomplished by the fellow spending a majority of time alternating monthly between the inpatient and outpatient services while overseeing all aspects of patient care. During this time, fellows gain experience and proficiency with procedures commonly performed on hematology and oncology patients (lumbar puncture, bone marrow aspirate, and bone marrow biopsy). Fellows also have the opportunity to develop their supervisory and teaching skills gradually under the supervision of program faculty. In addition, fellows begin their outpatient continuity clinic experience, and this experience continues throughout all three years in the Training Program.

The first year of training encompasses learning hematology laboratory techniques, becoming proficient at procedures such as bone marrow aspiration, bone marrow biopsy, diagnostic and therapeutic lumbar puncture (with instillation of intrathecal chemotherapy), peripheral blood smear and bone marrow morphology interpretation, blood product collection and banking protocols, cytogenetics laboratory techniques, radiation oncology techniques, congenital and acquired immunodeficiencies, and clinical aspects of neuro-oncology. Time also is devoted to choosing and initiating a hypothesis-driven research project under the supervision of program clinical and research faculty.

Please refer to the descriptions of each clinical rotation, which includes the Goals and Objectives for each experience.

B. Second and Third Year

- The second and third years of fellowship training is spent refining those skills learned in the first year of training, as well as completing a research project to satisfy the American Board of Pediatrics requirements for a “scholarly project” while in training. PCH and the Translational Genomics Research Institute (TGEN) jointly developed a detailed research training curriculum that serves as the framework for exposure to bench research as well as translational paths to clinical applications. This curriculum includes seminars in bench research techniques, bioethics, biomedical statistics, bioinformatics, research design, introduction to the institutional review board, presentation skills, formal instruction in grant and manuscript writing, and regular presentations at laboratory meetings.

- Fellows complete their research requirement under the supervision of faculty researchers at TGEN, PCH, or at another facility of their choosing, including the Arizona State University, University of Arizona, and the Mayo Clinic Research Laboratories. The Center for Cancer and Blood Disorders physicians have a very close working relationship with the researchers at TGEN, including active collaborations in several ongoing translational research projects, and they actively participate in the guidance of the fellows as they conduct their research.

- Fellows are in the outpatient hematology/oncology clinic (Continuity Clinic) approximately one half-day per week during the second and third years. Second and
third year fellows spend one month of each year on the inpatient clinical service to gain more experience in supervising clinical care and in serving as a teacher for residents and medical students. At no time are there two fellows of different years of training on the inpatient rotation month at the same time.

C. Call Schedule

- Fellows take only at-home (pager) call during all three years of training.
- Fellows take first calls from the inpatient floor, emergency department, outside medical facilities and other physicians, and concerned parents. There always is an attending physician from the Center for Cancer and Blood Disorders on call for every night that a fellow is on call, and the attending physician is available for back-up supervision or questions from the fellow at all times.
- Fellows take call from home, unless the fellow needs to return to the hospital while on call to assess a new or critically ill patient in person. Except when on the bone marrow transplant rotations, first and second year fellows take call from home one weeknight per week (4:30pm – 8:30am) and every sixth weekend with the covering attending (Friday 4pm – Sunday 4pm). When on the bone marrow transplant rotations, first year fellows cover the bone marrow transplant service exclusively for two seven-day continuous periods during the four-week rotation. Second year fellows cover both the transplant service and hematology/oncology service during the week (unless there is a first year fellow on the bone marrow transplant rotation). Third year fellows cover the hematology/oncology service only on weekends. Third year fellows cover both the hematology/oncology and bone marrow transplant services during the week when a first or second year fellow is on vacation.
- The Training Program strictly adheres to the ACGME-directed limitations on fellows’ duty hours as stated in The General Program Requirements for Subspecialties of Pediatrics (ACGME, 7/1/07). There is no requirement for in-house call, but hours that fellows spend in-house (e.g., to assess a critically ill patient) count toward the 80-hour limit per week. Fellows are required to log their hours spent on-site engaged in patient care to ensure compliance with this directive, and tracking is performed using regular duty hour surveys.

D. Procedures

- Fellows have the first opportunity to perform all procedures on patients in the inpatient and outpatient settings. All procedures are closely supervised by members of the program faculty, but the fellows are given gradually more independence in the ordering, preparation, performance, and coordination with the appropriate laboratory personnel for each procedure.
- It is expected that the fellows perform 5-10 (outpatient) and 10-15 (inpatient) lumbar punctures per month, and 3-5 (outpatient) and 5-10 (inpatient) bone marrow aspirates and biopsies per month, on average.
- Fellows are responsible for the interpretation and formal reporting of all bone marrow aspirations that they perform (with supervision by program faculty). All other bone marrow aspirates and any instructive peripheral blood films are reviewed at a weekly morphology conference with program faculty. Interpretation of bone marrow biopsies is performed by the pathology department, but fellows are encouraged to review the biopsies with them at that time.
- Fellows are encouraged to participate in any bone marrow harvests that are performed on donors of bone marrow transplant patients. It is expected that fellows will be able to participate in at least two of these harvests during their fellowship training.
• Fellows are required to keep a log of all procedures they perform to document competency. At least five procedures of each type must be performed by the fellow without prompting by faculty in order to be considered independently proficient in a procedure.

• Fellows are evaluated on their ability to perform procedures using a variety of assessment methods, including directly observed care assessments, faculty evaluations, and assessments from families.

E. Conferences
The following is a list of conferences that are offered to fellow during the Training Program:

<table>
<thead>
<tr>
<th>Conference</th>
<th>Frequency</th>
<th>Required (R) or Optional (O)</th>
<th>Role of the Fellow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fellow Orientation</td>
<td>First 2 weeks of every fellowship year</td>
<td>R</td>
<td>Participates in discussion</td>
</tr>
<tr>
<td>Friday Didactic Session</td>
<td>Weekly (years 1-3)</td>
<td>R</td>
<td>Participates in discussion or conducts conference</td>
</tr>
<tr>
<td>TGEN Research Conference</td>
<td>Weekly (years 2-3)</td>
<td>R</td>
<td>Participates in discussion or conducts conference</td>
</tr>
<tr>
<td>Scholarly Activities Curriculum</td>
<td>Every other month (year 1)</td>
<td>R</td>
<td>Participates in discussion</td>
</tr>
<tr>
<td>Evidence–based medicine conference</td>
<td>Monthly (years 1-3)</td>
<td>R</td>
<td>Participates in discussion</td>
</tr>
<tr>
<td>Faculty Learning Community</td>
<td>Monthly (years 1-3)</td>
<td>O</td>
<td>Participates in discussion or conducts conference</td>
</tr>
<tr>
<td>Bone marrow and peripheral blood morphology teaching rounds</td>
<td>Weekly (years 1-3)</td>
<td>R</td>
<td>Participates in discussion</td>
</tr>
<tr>
<td>Tumor Board</td>
<td>Weekly (years 1-3)</td>
<td>R</td>
<td>Participates in discussion or conducts conference</td>
</tr>
<tr>
<td>Conference</td>
<td>Frequency</td>
<td>Required (R) or Optional (O)</td>
<td>Role of the Fellow</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------------------------------</td>
<td>------------------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>Protocol Review</td>
<td>Monthly (years 1-3)</td>
<td>R</td>
<td>Participates in discussion or conducts conference</td>
</tr>
<tr>
<td>PCH Research conference</td>
<td>Monthly (years 1-3)</td>
<td>R</td>
<td>Participates in discussion or conducts conference</td>
</tr>
<tr>
<td>Pediatric Grand Rounds</td>
<td>Weekly (years 1-3)</td>
<td>O</td>
<td>Participation limited to Q&amp;A component</td>
</tr>
<tr>
<td>Neuro-oncology tumor board</td>
<td>Monthly (years 1-3)</td>
<td>O (except during Neuro-Oncology rotation, when this conference is required)</td>
<td>Participates in discussion or conducts conference</td>
</tr>
<tr>
<td>Lecture to pediatric residents</td>
<td>Weekly (years 1-3)</td>
<td>R (when on inpatient service)</td>
<td>Conducts conference</td>
</tr>
<tr>
<td>Lecture to medical students</td>
<td>Quarterly (years 1-3)</td>
<td>R</td>
<td>Conducts conference</td>
</tr>
<tr>
<td>Hematology/Oncology Departmental Meeting</td>
<td>Quarterly (years 1-3)</td>
<td>R</td>
<td>Participates in discussion</td>
</tr>
<tr>
<td>Pediatric Resident Morbidity and Mortality Conference</td>
<td>Monthly (years 1-3)</td>
<td>O</td>
<td>Participates in discussion</td>
</tr>
<tr>
<td>Psychosocial Rounds</td>
<td>Monthly (years 1-3)</td>
<td>R</td>
<td>Participates in discussion</td>
</tr>
<tr>
<td>Pediatric resident report</td>
<td>Three times weekly (years 1-3)</td>
<td>O</td>
<td>Participates in discussion</td>
</tr>
</tbody>
</table>

- Fellows and faculty are required to attend > 75% of the required meetings and conferences per year. Failure to meet this requirement results in warning and remediation. Records of attendance by both faculty and fellows are collected at each conference and are maintained by the program coordinator.
- Fellows are evaluated using conference evaluation forms at the end of each conference. Responses on the evaluation are averaged and summarized for review with the fellow’s clinical mentor and the program director.

F. Research Experience

Fellows may perform research at a facility of their choosing. PCH has a close working relationship with the Translational Genomics Research Institute (TGEN) in Phoenix, although there are
opportunities at PCH within the Center for Cancer and Blood Disorders, at the University of Arizona, at the Arizona State University, Mayo Clinic, or at another facility of the fellow’s choosing. PCH and TGEN have initiated a research training program for the fellows, and it is outlined in the Rotation Description elsewhere in this handbook.

G. Evaluation

- Copies of all evaluations are included in this Handbook. Fellows are evaluated using the following methods:
  
  - Clinical faculty evaluation after a clinical rotation
  - Research faculty evaluation during the research rotations
  - Patient/family evaluations
  - Ancillary staff evaluations
  - Secretary and clinical research staff evaluations
  - Surgery and laboratory staff evaluations
  - Self-assessment evaluations
  - Conference evaluations
  - Direct observed care evaluations
  - Semi-annual evaluations (to be performed with the fellow’s clinical mentor and program director
  - Scholarship Oversight Committee evaluations
  - Summative evaluations at the end of fellowship
  - Monthly meetings between the fellow and clinical advisor
  - Spontaneous and immediate verbal feedback

- The methods of evaluation used for assessing fellow competence in each of the six required ACGME Competencies are listed in the following table:

<table>
<thead>
<tr>
<th>Competency</th>
<th>Methods of Evaluation</th>
<th>Evaluator(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient care</td>
<td>Direct supervision</td>
<td>Faculty Member Program Director</td>
</tr>
<tr>
<td></td>
<td>Global assessment</td>
<td>Faculty Member Program Director</td>
</tr>
<tr>
<td></td>
<td>Record/chart view</td>
<td>Faculty Member Faculty Supervisor Program Director</td>
</tr>
<tr>
<td></td>
<td>Review of case or procedure log</td>
<td>Faculty Member Faculty Supervisor Program Director</td>
</tr>
<tr>
<td>Medical knowledge</td>
<td>Global assessment</td>
<td>Faculty Member Program Director</td>
</tr>
<tr>
<td></td>
<td>In-training examination</td>
<td>Program Director</td>
</tr>
<tr>
<td></td>
<td>Structured case discussions</td>
<td>Faculty Member Program Director</td>
</tr>
<tr>
<td>Practice-based learning &amp; improvement</td>
<td>Global assessment</td>
<td>Faculty Member Program Director</td>
</tr>
<tr>
<td>Competency</td>
<td>Methods of Evaluation</td>
<td>Evaluator(s)</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>-----------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Multisource assessment</td>
<td></td>
<td>Allied Health Professionals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clerical Staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Faculty Member</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Families</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nurses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self</td>
</tr>
<tr>
<td>Project assessment</td>
<td></td>
<td>Faculty Member</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Program Director</td>
</tr>
<tr>
<td>Interpersonal &amp; communication skills</td>
<td>Global assessment</td>
<td>Faculty Member</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Program Director</td>
</tr>
<tr>
<td>Multisource assessment</td>
<td></td>
<td>Allied Health Professionals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attending Physicians</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Faculty Member</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Families</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nurses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self</td>
</tr>
<tr>
<td>Record/chart view</td>
<td></td>
<td>Faculty Member</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Program Director</td>
</tr>
<tr>
<td>Structured case discussions</td>
<td></td>
<td>Faculty Member</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Program Director</td>
</tr>
<tr>
<td>Global assessment</td>
<td></td>
<td>Faculty Member</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Program Director</td>
</tr>
<tr>
<td>Professionalism</td>
<td>Multisource assessment</td>
<td>Allied Health Professionals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clerical Staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Faculty Member</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Families</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nurses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self</td>
</tr>
<tr>
<td>Systems-based practice</td>
<td>Global assessment</td>
<td>Faculty Member</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Program Director</td>
</tr>
<tr>
<td>Multisource assessment</td>
<td></td>
<td>Allied Health Professionals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clerical Staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Technicians</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Program Director</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nurses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self</td>
</tr>
</tbody>
</table>

- The program director reviews the evaluation methods with the fellows during their orientation, and blank copies of all written evaluation forms are included in this handbook. At the beginning of each new rotation, including their research time, the specific evaluation methods and expectations of the fellow are discussed by the direct supervisor, clinical mentor, research mentor, or program director, as applicable.

- Within two weeks after each rotation, the direct supervisor (clinical or research teaching faculty) is expected to provide written feedback using a standardized evaluation form. This form is given to the program coordinator so that all of the evaluations from the attending physicians who supervised the fellow during the rotation can be combined into one comprehensive evaluation for the rotation. In this way, all comments remain anonymous. The comprehensive evaluation is then shared and discussed with the fellow at regularly-scheduled meetings with the fellow’s advisor and/or program director.

- If there is a matter that needs remediation, this evaluation session can be held in conjunction with the program director. The completed and signed evaluation form is then given to the program director for inclusion in the fellows’ file. These guidelines are appended to this fellow
handbook and are distributed to the fellows during their orientation and to the faculty on an annual basis.

- During their clinical months, fellows meet with their clinical mentor and/or program director at least monthly to discuss their formal evaluations. During their research months, fellows meet with their research mentor at least every week to provide guidance to the fellow and to ensure project completion by the end of training. The program director meets with the fellows at least semi-annually to discuss any deviations from and barriers to achieving success in their individualized learning plan.

- Faculty are evaluated by fellows on such items as teaching ability, clinical knowledge, professionalism, work ethic, support for the training program, and scholarly activity. These evaluations are performed yearly in a written, anonymous fashion using a combination of scaled responses and a narrative section. The evaluations are then compiled for each faculty member and shared with the faculty member by the program director in private evaluation sessions. Any consistent or serious issues with a faculty member noted by the fellows are discussed by the program director confidentially with the chief of the hematology/oncology division.

- Fellows are given the opportunity to evaluate the program once per year using formal evaluations with scaled responses and a narrative section. Fellows are asked to evaluate such parameters as quality of teaching by the clinical faculty and research faculty, continuity experience in the outpatient clinic, guidance on both outpatient and inpatient clinical services, supervision during and availability of procedures, quality of training during laboratory and immunodeficiency rotations, and the research experience as a whole. Responses by the fellows will be reviewed yearly by the program director and clinical/research faculty during:
  - Semi-annual departmental meetings with the hematology/oncology division and key faculty (including research faculty)
  - Semi-annual meetings between the program director and fellows
  - Program directors’ meetings held in conjunction with program directors of all subspecialty training programs at PCH, the Designated Institutional Official at PCH, the categorical residency program directors at PCH, and administrative staff.
  - Meetings of the Graduate Medical Education Committee at PCH

- Fellows and faculty also participate in a yearly Annual Program Review that is performed and documented per ACGME requirements. See the policy section of this handbook for more information.

- Fellows and faculty participate in an Internal Review (arranged by the Department of Graduate Medical Education) per ACGME guidelines and timed with regard to the program accreditation cycle.

Any feedback that consistently indicates the need for change in an aspect of the Training Program is discussed with the faculty and fellows at a subsequent meeting and promptly remedied.
## Timeline for TGEN Research Experience

<table>
<thead>
<tr>
<th>Activity</th>
<th>Year 1 Months 6-12</th>
<th>Years 2 - 3 Months</th>
<th>Year 2 Months 13-16</th>
<th>Year 3 Months 17-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meet with Mentor and Identify Project</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development of Research Proposal and Training Plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete CITI Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bench Research Techniques</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsible Conduct of Research</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bi-Weekly Meeting with Mentor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Laboratory Rotation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finalize Research Proposal and Training Plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submit Training Plan to SOC for Approval</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bioinformatics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Laboratory Rotation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obtain IRB and IACUC Approval, if necessary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-going Research Project</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attendance at Seminars, Lab Meetings, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposal Preparation Workshops</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepare Grant Application</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manuscript Preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submit Grant Application to Mentor and Advisory Committee for Review</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submit Manuscript</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submit Grant Application</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Report to SOC and Mentor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Presentation at Monthly Seminar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6/21/07
## Goals and Objectives - Table of Contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient</td>
<td>1</td>
</tr>
<tr>
<td>Outpatient</td>
<td>10</td>
</tr>
<tr>
<td>Outpatient Continuity Clinic (Addendum)</td>
<td>19</td>
</tr>
<tr>
<td>Neuro-Oncology</td>
<td>20</td>
</tr>
<tr>
<td>Laboratory and Transfusion Medicine</td>
<td>25</td>
</tr>
<tr>
<td>Immunology</td>
<td>29</td>
</tr>
<tr>
<td>Cytogenetics</td>
<td>33</td>
</tr>
<tr>
<td>Bone Marrow Transplantation</td>
<td>37</td>
</tr>
<tr>
<td>Radiation Oncology</td>
<td>44</td>
</tr>
<tr>
<td>Scholarly Activities Curriculum</td>
<td>48</td>
</tr>
<tr>
<td>Research</td>
<td>57</td>
</tr>
</tbody>
</table>
OVERALL DESCRIPTION

- The fellow will be assigned to the inpatient oncology service at Phoenix Children's Hospital. Working alongside a full-time faculty member, and with pediatric housestaff, nurse practitioners, medical students, inpatient nurses, and other health care personnel of the interdisciplinary team the fellow will manage inpatients with presumed and established hematological and oncological diagnoses. This rotation also provides the opportunity for gaining proficiency in bone marrow aspiration and biopsy, as well as lumbar puncture with instillation of chemotherapy. During this experience, fellows will collect primary continuity patients that they will follow in their continuity clinic under the supervision of a faculty member.

- During the day, fellows are responsible for the overall care of the inpatients on the hematology/oncology service at Phoenix Children’s Hospital. The service is covered by two attending physicians. Fellows round with one of the attending physicians covering the service during the day, and they can also cover patients of good educational value on the other attending physician’s service, at the approval and discretion of both attending physicians. They are responsible for performing initial consults from other inpatient services, followed by discussion and supervision by the inpatient attending physician. All procedures are done under supervision of the program staff.

- As fellows gain more experience in clinical care, they receive more autonomy from the teaching attending, but each case still is discussed in its entirety before implementing recommendations and a plan of action. Fellows are supervised in a similar manner by the teaching attending physician with regard to leading family care conferences during which complex diagnoses and treatment plans are discussed.

- Inpatient rounds typically start daily at 9:15 AM, when the hematology/oncology team begins to round. These rounds typically last until 10:00 AM, or until all of the patients are discussed adequately with the pediatric resident team. Rounds are attended by fellows, attending physicians, inpatient nurses, pediatric residents, medical students, inpatient nurse practitioners, pharmacy staff with specialization in chemotherapy, nutritionists, and pain service staff. It is during these rounds that fellows acquire the skill set to discuss patient status changes in the prior 24 hours with the residents and medical students, to review and interpret any new findings on the patient history or physical exam, laboratory testing, or medical imaging, and to formulate a daily treatment plan based on these data. Fellows gradually attain the role of leading inpatient rounds under faculty supervision. It is expected that the fellows engage the pediatric residents and medical students in academic discussions regarding the management of the patients whom they are covering, when appropriate (formally, at least once per week). Full teaching rounds are held every day of the year.

- In their second and third year of training, fellows have one block per year of inpatient service, during which they hone their skills attained in the first year of training. During these later experiences, fellows serve as junior faculty and are expected to assume greater responsibility for the care of the inpatient service, including consultations from other services. Nevertheless, fellows will have continuous, direct supervision from clinical faculty, but with the attainment of autonomy for patient care activities being the primary objective.

- Didactic and interactive teaching of pertinent topics in stem cell transplantation will be given by faculty members during the rotation.
GOALS AND OBJECTIVES

1. Goal - Patient Care that is compassionate, appropriate, and effective for the treatment of health programs and the promotion of health.

Hematology-Specific Competencies

The fellow will gain experience in management of patients with the following problems:

a) diagnostic evaluations of new patients and determining treatment plans for new patients

b) management of acute complications of sickle cell anemia (including but not limited to vaso-occlusive pain, chest syndrome, priapism, and stroke) and post-operative management

c) post-operative management of hemophilia patients

d) hematology consults on patients with hematologic complications, including bleeding, thrombosis, anemia, and WBC abnormalities.

e) interpretation of blood and bone marrow smears

Oncology-Specific Competencies

The fellow will gain experience in management of patients with the following problems:

a) diagnostic evaluations and staging of new patients and determining treatment plans for new patients

b) staging and reassessment of established patients who relapse

c) administration of chemotherapy

d) management of complications such as nausea and vomiting, febrile neutropenia, mucositis and pain

e) provision of nutrition, both enteral and parenteral

f) use of blood components

g) care of terminally ill patients

Objectives – first year

- Demonstrate, through presentations of patients seen on the inpatient service and on consultation to other hospital services, the ability to report a detailed and appropriate history and physical examination along with pertinent diagnostic studies on hematology and oncology patients.

- Develop and provide rationale for the management plans of children with hematological and oncological disease.

- Recognize the indications for and the risks of the following therapies in the inpatient setting and develop appropriate management plans for the common complications of:
  - Exchange transfusion therapy
  - Simple transfusion therapy
  - Factor replacement therapy
  - Anti-coagulation therapy
  - Central venous lines
  - Chemotherapy
  - Transfusion therapy
  - Radiation therapy
• Surgical therapy
• Nutritional support
• Acute and chronic pain management

Discriminate between patients who may be appropriately treated on the inpatient unit, and those who require escalation of care.

Identify patients that will be followed in their continuity clinic by them but under the supervision of a faculty member.

Discriminate changes in clinical status of patients or severity of clinical status of patients that need to be reported to the attending immediately from those which can be presented in rounds.

Develop and provide rationale for the management plans of children with acute life-threatening or major-organ-threatening disease states, such as sepsis, tumor lysis syndrome, and acute neurological compromise.

When requesting consultation services, demonstrate the ability to formulate an appropriate question and rationale justified by pertinent points of the history, physical examination, and laboratory data.

Recognize the indications for, the common complications of and perform the following procedures:

- Conscious sedation
- Bone marrow aspiration and biopsy
- Lumbar puncture with instillation of chemotherapy

Objectives – second year

• All of the first year objectives, plus:
  ▪ Become increasingly independent in all objectives
  ▪ Begin to develop treatment plans for oncological diagnoses for which there is no standard treatment
  ▪ Become more adept at all procedures and require little to no prompting or assistance from supervising faculty
  ▪ Become more proficient at discussing end-of-life options with terminally-ill patients and their families and interface with the palliative care team
  ▪ Require less supervision on inpatient work rounds and when performing consultations

Objectives – third year

• All of the second-year objectives, plus:
  ▪ Develop competency in all areas without the need for prompting or intervention by supervising faculty
  ▪ Demonstrate the ability to function independently and without supervision in all areas

2. Goal: Medical Knowledge. Understand the scope of established and evolving biomedical, clinical, epidemiological and social-behavior knowledge needed by a pediatric hematologist-oncologist; demonstrate the ability to acquire, critically interpret and apply this knowledge in patient care.

Hematology-Specific Competencies
The fellow will gain clinical experience in management of patients with the following diagnoses:

a) hematologic disorders of the newborn
b) hemoglobinopathies, including the thalassemia syndromes
c) inherited and acquired disorders of the red-blood-cell membrane and of red-blood cell metabolism
d) autoimmune disorders, including hemolytic anemia
e) nutritional anemia
f) inherited and acquired disorders of white blood cells
g) hemophilia, von Willebrand's disease, and other inherited and acquired coagulopathies
h) platelet disorders, including idiopathic thrombocytopenic purpura (ITP), and acquired and inherited platelet function defects
i) congenital and acquired thrombotic disorders
j) bone marrow failure
k) transfusion medicine and use of blood products
l) management of the patient undergoing long-term transfusion therapy
m) vascular malformations and associated tumors

**Oncology-Specific Competencies**

The fellow will gain clinical experience in management of patients with the following diagnoses:

a) Leukemias, including acute lymphoblastic leukemia, acute and chronic myeloid leukemia and myelodysplastic syndromes
b) Solid tumors of organs, soft tissue, bone and central nervous system
c) Lymphomas
d) Histiocytoses
e) Benign tumors that require hematology/oncology follow-up

**Objectives – first year**

- Develop a prioritized differential diagnosis for children with hematological or oncological disease, hospitalized for acute illnesses related to a hematological or oncological disease, or treatment or seen in new consultation
- Demonstrate knowledge of conditions including, but not restricted to, the list above

**Objectives – second year**

- All of the first year objectives, plus:
  - Become increasingly independent in all objectives
  - Become a better teacher for residents and medical students, and be able to deliver impromptu lectures as the need arises
  - Improve one’s in-training examination score from the prior year

**Objectives – third year**

- All of the second-year objectives, plus:
  - Develop competency in all areas without the need for prompting or intervention by supervising faculty
  - Demonstrate the ability to function independently and without supervision in all areas
  - Demonstrate sufficient knowledge to sit for and pass the Board Certifying Examination
3. **Interpersonal and Communication Skills:** Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families and professional associates.

**Competencies**

The fellow will gain experience in the following:

- a) Effective communication with patient and families across a broad range of socioeconomic and cultural backgrounds
- b) Effective communication with physicians and other health professionals and health related agencies
- c) Maintain comprehensive, timely, and legible medical records

**Objectives – first year**

- Communicate effectively in a developmentally appropriate manner with patients and families to create and sustain a professional and therapeutic relationship across a broad range of socioeconomic and cultural backgrounds.
- Effectively communicate changes in patient status to attending physicians and status of inpatients to community pediatricians and referring physicians.
- Lead the discussion with the family of a child with a newly diagnosed malignancy.
- Obtain informed consent for fellow performed procedures, conscious sedation, and protocol-based therapies for malignant disorders.
- Present patients effectively on the inpatient oncology service during clinical rounds.
- Maintain comprehensive, timely and legible medical records.
- Ensure all signatures are on the consent form and roadmaps, and maintain the roadmaps with frequent updates as necessary.
- Communicate with referring physicians within 72 hours of the admission of a new hematology-oncology patient or a major change in the status of an existing patient.
- Complete timely letters of consultation to the referring physician and communicate patient status regularly with copies of progress notes sent to the referring physician.

**Objectives – second year**

- All of the first year objectives, plus:
  - Become increasingly independent in all objectives
  - Become more independent at communication with other subspecialty services and with peer-to-peer interactions with insurance companies
  - Write clear and concise notes and letters to referring physicians that require little to no editing by supervising faculty
  - Lead work rounds with little to no intervention from supervising faculty

**Objectives – third year**

- All of the second-year objectives, plus:
  - Demonstrate the ability to function independently and without supervision in all areas
4. **Practice Based Learning and Improvement:** Demonstrate knowledge, skills and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate, and improve one’s patient care practice.

**Competencies**

- a) Locate, appraise and assimilate evidence from scientific studies related to patients health problems
- b) Participate in the education of families, students, residents and other health professionals
- c) Use information technology to optimize learning

**Objectives – first year**

- Present new cases to faculty at Tumor Board with a detailed literature review in defense of the treatment strategy being recommended for the patient.
- Use the Children’s Oncology Group (COG) website effectively for information on clinical trials as they relate to patients with malignant disorders
- Actively participate in the education of patients, families, students, residents, and other health professionals
  - o Provide at least daily updates to patients and their families regarding the plan of care.
  - o Participate in the education of medical students and residents on inpatient service.

**Objectives – second year**

- All of the first year objectives, plus:
  - ▪ Become increasingly independent in all objectives
  - ▪ Develop the ability to update families and answer all of their questions without intervention by supervising faculty

**Objectives – third year**

- All of the second-year objectives, plus:
  - ▪ Demonstrate the ability to function independently and without supervision in all areas

5. **Professionalism:** Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to diversity

**Competencies**

- a) Compassion, integrity and respect for others
- b) Responsiveness to patient needs that supersedes self-interest
- c) Respect for patients privacy and autonomy
- d) Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities and sexual orientation

**Objectives – first year**
- Consistently maintain respect, compassion, integrity, honesty and responsiveness to the needs of patients and the health care team in a way that supersedes self-interest
- Continually demonstrate accountability to all patients (even if other physicians are primarily responsible for their care) and the health care team
- Demonstrate a commitment to excellence and ongoing professional development by being prepared, on-time, in appropriate attire and contributing in rounds, teaching conferences and didactic lectures
- Exercise sensitivity to the needs of the patient and the parent/guardian by applying cultural awareness, negotiation, compromise and mutual respect in the daily care of outpatients
- Recognize and demonstrate an understanding of ethical, cultural, religious, or spiritual values of import to patients and families during communications and care decisions
- Demonstrate a commitment to confidentiality, privacy, and respect for patients and families
- Demonstrate empathy towards the child and family in negotiating and designing goals of treatment, including relevant medical, legal and psychological issues
- Demonstrate advocacy for patients and their families
- Honestly assess one’s contribution to errors that are made, accept responsibility for personal mistakes and implement plans to prevent one’s self and others from making the mistake again.

**Objectives – second year**

- All of the first year objectives, plus:
  - Become increasingly independent and/or proficient in all objectives

**Objectives – third year**

- All of the second-year objectives, plus:
  - Demonstrate the ability to function independently and without supervision in all areas
  - Demonstrate proper evolution of one’s professional maturity as would be expected of a practicing attending physician

**6. Systems Based Practice:** Understand how to practice high quality health care and advocate for patients within the context of the health care system

**Competencies**

- a) Coordinate patient care within the health care system
- b) Work in inter-professional teams to enhance patient safety and improve patient care quality
- c) Incorporate considerations of cost awareness and risk-benefit analysis in patient care
- d) Participate in identifying systems errors and in implementing potential systems solutions

**Objectives – first year**

- Prioritize the various modes of diagnostic testing and select the most appropriate testing modality, with a goal toward preventing unnecessary laboratory or imaging tests.
• Demonstrate the ability to work effectively with other members of the health care team, including, but not limited to, other physicians, nurses, pharmacists, dietitians, child life specialists, and chaplains.
• Comply with institutional systems that have been developed to prevent errors in the administration of blood transfusion and “high risk” medications, such as immunosuppressive medications, coagulation factor concentrates and anticoagulants.
• Avoid use of ambiguous or unacceptable abbreviations in the medical record, prescriptions and medical orders.
• Work effectively with the discharge planner to arrange home-care and follow-up for discharged patients
• Work with pain management team to provide adequate and appropriate pain control to hospitalized patients
• Work with dietitian to provide nutritional support (including TPN) to hospitalized patients
• Acknowledge medical errors in a forthright manner, and report observed medical errors (real or potential) to the appropriate member of the care team, then work with the team to develop a plan for preventing future errors. Specifically for chemotherapy, this would require a report to the chemotherapy task force.

Objectives – second year

• All of the first year objectives, plus:
  ▪ Become increasingly independent in all objectives
  ▪ Recognize the “business model” of medicine and strive to maintain excellence in both health-care cost efficiency and delivery of excellent health care

Objectives – third year

• All of the second-year objectives, plus:
  ▪ Demonstrate the ability to function independently and without supervision in all areas
  ▪ Navigate “the system” of health care delivery at the level that would be expected of an attending physician, while maintaining the balance between evidence-based health care delivery and cost containment

Teaching methods
a) Inpatient rounds both with the interdisciplinary team and on daily work rounds with the inpatient clinical faculty
b) Continuous interaction with clinical faculty in all decisions made for inpatients
c) Weekly clinical oncology rounds
d) Weekly tumor board
e) Weekly fellows didactic conference

Assessment methods (fellows)
a) Global assessments are completed by faculty at the end of the rotation. These assessments are shared with the fellow by written and verbal communication and reviewed with the fellow during a semiannual meeting with the program director and clinical advisor.
b) Twice yearly multisource evaluations by multiple members of the interdisciplinary team and patients/families.
c) Direct observation
Assessment methods (Program evaluation)

a) Fellows complete a yearly, anonymous, confidential evaluation of the rotation
b) Monthly faculty meetings review the progress of each fellow and the program in general
c) Yearly meeting for the faculty and fellows to review the program in general

Level of supervision

a) The fellow on this rotation works under the supervision of a clinical faculty member at all times
b) During night call there is a clinical faculty member available at all times to discuss calls and patient issues

Reading List:

2) Orkin: *Oncology of Infancy and Childhood* (2009)
5) Children’s Oncology Group website: www.curesearch.org
OVERALL DESCRIPTION

- The fellow will be assigned to the outpatient hematology/oncology clinic at Phoenix Children's Hospital. Working alongside a full-time faculty member, and with nurse practitioners, medical students, rotating housestaff and medical students, nurses, and other health care personnel of the inter-disciplinary team, the fellow will manage outpatients with presumed and established hematological and oncological diagnoses. This rotation also provides the opportunity for gaining proficiency in bone marrow aspiration and biopsy, and lumbar puncture with instillation of chemotherapy.

- During the outpatient rotations, fellows see patients in the hematology/oncology clinic at Phoenix Children’s Hospital. Fellows are supervised by one faculty member assigned to the outpatient clinic for each half-day. Fellows see patients in the outpatient clinic with increasing degrees of independence while still discussing all cases with faculty. All procedures are done under faculty supervision.

- Fellows are exposed to several specialty clinics that are offered to patients in the Center for Cancer and Blood Disorders outpatient clinic. These clinics meet several times per month, and they include:

  1) **Comprehensive Sickle Cell Disease Clinic**: During this clinic, fellows learn the routine health-care maintenance and anticipatory guidance issues involved in the care of patients with sickle cell disease. This clinic is also attended by members of the pain team at PCH, who help to develop and manage the patients’ pain medication regimen. Social workers, nurse clinicians, and nutritionists also participate. Topics including dental and ophthalmologic follow-up, proper surveillance with medical imaging to detect avascular necrosis and intracranial arterial hypertension, infection prophylaxis, surveillance for blood-borne infections, and chronic transfusion protocols with iron chelation are discussed.

  2) **Comprehensive Hemophilia Clinic**: This clinic is multidisciplinary and attended by several services, including hematology/oncology, physical therapy, nursing, social work, and nutrition. Fellows learn health-care maintenance and anticipatory guidance issues surrounding the care of patients with bleeding disorders. Patients with clotting factor deficiencies, including Von Willebrand disease, are seen in this clinic. Topics including factor dose and infusion, home infusion, management of clotting factor inhibitors, immune tolerance, prophylaxis, and enrollment in clinical trials are discussed.

  3) **Survivor Clinic**: This multidisciplinary clinic is staffed by representatives from hematology/oncology, endocrinology, social work, nursing, and nutrition. Long-term effects from chemotherapy and radiation therapy, as well as surveillance for second malignancies is discussed. Patients in this clinic usually present only once per year, but this experience represents an important learning opportunity for fellows to appreciate the ongoing multidisciplinary care of a cancer patient after therapy has been completed.

1. **Goal - Patient Care** that is compassionate, appropriate, and effective for the treatment of health programs and the promotion of health.
Hematology-Specific Competencies

The fellow will gain experience in management of patients with the following problems:

a) diagnostic evaluations of new patients and determining treatment plans for new patients
b) management of acute complications of sickle cell anemia (including but not limited to vaso-occlusive pain, chest syndrome, priapism, and stroke) and post-operative management
c) post-operative management of hemophilia patients
d) hematology consults on patients with hematologic complications, including bleeding, thrombosis, anemia, and WBC abnormalities.
e) interpretation of blood and bone marrow smears

Oncology-Specific Competencies

The fellow will gain experience in management of patients with the following problems:

a) diagnostic evaluations and staging of new patients and determining treatment plans for new patients
b) staging and reassessment of established patients who relapse
c) administration of chemotherapy
d) management of complications such as nausea and vomiting, febrile neutropenia, mucositis and pain
e) provision of nutrition, both enteral and parenteral
f) use of blood components
g) care of terminally ill patients

Objectives – first year

- Demonstrate, through presentations of patients seen, the ability to report a detailed and appropriate history and physical examination along with pertinent diagnostic studies on hematology and oncology patients.
- Develop and provide rationale for the management plans of children with hematological and oncological disease.
- Recognize the indications for and the risks of the following therapies in the inpatient setting and develop appropriate management plans for the common complications of:
  - Exchange transfusion therapy
  - Simple transfusion therapy
  - Factor replacement therapy
  - Anti-coagulation therapy
  - Central venous lines
  - Chemotherapy
  - Transfusion therapy
  - Radiation therapy
  - Surgical therapy
  - Nutritional support
  - Acute and chronic pain management
- Discriminate between patients who may be appropriately treated as an outpatient, and those who require admission to the hospital for escalation of care.
Discriminate changes in clinical status of patients or severity of clinical status of patients that need to be reported to the attending immediately from those which can be presented in rounds.

When requesting consultation services, demonstrate the ability to formulate an appropriate question and rationale justified by pertinent points of the history, physical examination, and laboratory data.

Recognize the indications for, the common complications of and perform the following procedures:
- Conscious sedation
- Bone marrow aspiration and biopsy
- Lumbar puncture with instillation of chemotherapy

Objectives – second year

- All of the first year objectives, plus:
  - Become increasingly independent in all objectives
  - Begin to develop treatment plans for oncological diagnoses for which there is no standard treatment
  - Become more adept at all procedures and require little to no prompting or assistance from supervising faculty
  - Become more proficient at discussing end-of-life options with terminally-ill patients and their families and interface with the palliative care team
  - Require less supervision on inpatient work rounds and when performing consultations

Objectives – third year

- All of the second-year objectives, plus:
  - Develop competency in all areas without the need for prompting or intervention by supervising faculty
  - Demonstrate the ability to function independently and without supervision in all areas

2. Goal: Medical Knowledge. Understand the scope of established and evolving biomedical, clinical, epidemiological and social-behavior knowledge needed by a pediatric hematologist-oncologist; demonstrate the ability to acquire, critically interpret and apply this knowledge in patient care.

Hematology-Specific Competencies

The fellow will gain clinical experience in management of patients with the following diagnoses:

- a) hematologic disorders of the newborn
- b) hemoglobinopathies, including the thalassemia syndromes
- c) inherited and acquired disorders of the red-blood-cell membrane and of red-blood cell metabolism
- d) autoimmune disorders, including hemolytic anemia
- e) nutritional anemia
- f) inherited and acquired disorders of white blood cells
- g) hemophilia, von Willebrand's disease, and other inherited and acquired coagulopathies
- h) platelet disorders, including idiopathic thrombocytopenic purpura (ITP), and acquired and inherited platelet function defects
i) congenital and acquired thrombotic disorders
j) bone marrow failure
k) transfusion medicine and use of blood products
l) management of the patient undergoing long-term transfusion therapy
m) vascular malformations and associated tumors

Oncology-Specific Competencies

The fellow will gain clinical experience in management of patients with the following diagnoses:

a) Leukemias, including acute lymphoblastic leukemia, acute and chronic myeloid leukemia and myelodysplastic syndromes
b) Solid tumors of organs, soft tissue, bone and central nervous system
c) Lymphomas
d) Histiocytoses
e) Benign tumors that require oncology follow-up

Objectives – first year

- Develop a prioritized differential diagnosis for children with presumed or proven hematological or oncological disease, both as new presentations or as complications of a known condition
- Demonstrate knowledge of conditions including, but not restricted to, the list above

Objectives – second year

- All of the first year objectives, plus:
  - Become increasingly independent in all objectives
  - Become a better teacher for residents and medical students, and be able to deliver impromptu lectures as the need arises
  - Improve one’s in-training examination score from the prior year

Objectives – third year

- All of the second-year objectives, plus:
  - Develop competency in all areas without the need for prompting or intervention by supervising faculty
  - Demonstrate the ability to function independently and without supervision in all areas
  - Demonstrate sufficient knowledge to sit for and pass the Board Certifying Examination

3. Interpersonal and Communication Skills: Demonstrate interpersonal and communications skills that result in information exchange and partnering with patients, their families and professional associates.

Competencies

The fellow will gain experience in the following:

a) Effective communication with patient and families across a broad range of socioeconomic and cultural backgrounds
b) Effective communication with physicians and other health professionals and health related agencies

c) Maintain comprehensive, timely, and legible medical records

**Objectives – first year**

- Communicate effectively in a developmentally appropriate manner with patients and families to create and sustain a professional and therapeutic relationship across a broad range of socioeconomic and cultural backgrounds.
- Effectively communicate changes in patient status to attending physicians and status of inpatients to community pediatricians and referring physicians.
- Lead the discussion with the family of a child with a newly diagnosed malignancy.
- Obtain informed consent for fellow performed procedures, conscious sedation, and protocol-based therapies for malignant disorders.
- Present patients effectively to precepting clinical faculty.
- Maintain comprehensive, timely and legible medical records on all outpatients, including primary continuity patients.
- Ensure all signatures are on the consent form and roadmaps, and maintain the roadmaps with frequent updates as necessary.
- Communicate with referring physicians within 72 hours of the admission of a new hematology-oncology patient or a major change in the status of an existing patient.
- Complete timely letters of consultation to the referring physician and communicate patient status regularly with copies of progress notes sent to the referring physician.

**Objectives – second year**

- All of the first year objectives, plus:
  - Become increasingly independent in all objectives
  - Become more independent at communication with other subspecialty services and with peer-to-peer interactions with insurance companies
  - Write clear and concise notes and letters to referring physicians that require little to no editing by supervising faculty

**Objectives – third year**

- All of the second-year objectives, plus:
  - Demonstrate the ability to function independently and without supervision in all areas

**4. Practice Based Learning and Improvement:** Demonstrate knowledge, skills and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate, and improve one’s patient care practice.

**Competencies**

a) Locate, appraise and assimilate evidence from scientific studies related to patients health problems

b) Participate in the education of families, students, residents and other health professionals

c) Use information technology to optimize learning

**Objectives – first year**
• Present new cases to faculty at Tumor Board with a detailed literature review in defense of the treatment strategy being recommended for the patient.
• Use the Children’s Oncology Group (COG) website effectively for information on clinical trials as they relate to patients with malignant disorders
• Actively participate in the education of patients, families, students, residents, and other health professionals  
  o Provide concise and clear updates to patients and their families regarding the plan of care.  
  o Participate in the education of medical students and residents on the outpatient service.

Objectives – second year

• All of the first year objectives, plus:
  ▪ Become increasingly independent in all objectives
  ▪ Develop the ability to update families and answer all of their questions without intervention by supervising faculty

Objectives – third year

• All of the second-year objectives, plus:
  ▪ Demonstrate the ability to function independently and without supervision in all areas

5. Professionalism: Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to diversity

Competencies

a) Compassion, integrity and respect for others
b) Responsiveness to patient needs that supersedes self-interest
c) Respect for patients privacy and autonomy
d) Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities and sexual orientation

Objectives – first year

• Consistently maintain respect, compassion, integrity, honesty and responsiveness to the needs of patients and the health care team in a way that supersedes self-interest
• Continually demonstrate accountability to all patients (even if other physicians are primarily responsible for their care) and the health care team
• Demonstrate a commitment to excellence and ongoing professional development by being prepared, on-time, in appropriate attire and contributing in rounds, teaching conferences and didactic lectures
• Exercise sensitivity to the needs of the patient and the parent/guardian by applying cultural awareness, negotiation, compromise and mutual respect in the daily care of patients
• Recognize and demonstrate an understanding of ethical, cultural, religious, or spiritual values of import to patients and families during communications and care decisions
• Demonstrate a commitment to confidentiality, privacy, and respect for patients and families
• Demonstrate empathy towards the child and family in negotiating and designing goals of treatment, including relevant medical, legal and psychological issues
• Demonstrate advocacy for patients and their families
• Honestly assess one’s contribution to errors that are made, accept responsibility for personal mistakes and implement plans to prevent one’s self and others from making the mistake again.

Objectives – second year

• All of the first year objectives, plus:
  • Become increasingly independent and/or proficient in all objectives

Objectives – third year

• All of the second-year objectives, plus:
  • Demonstrate the ability to function independently and without supervision in all areas
  • Demonstrate proper evolution of one’s professional maturity as would be expected of a practicing attending physician

6. Systems Based Practice: Understand how to practice high quality health care and advocate for patients within the context of the health care system

Competencies

a) Coordinate patient care within the health care system
b) Work in inter-professional teams to enhance patient safety and improve patient care quality
c) Incorporate considerations of cost awareness and risk-benefit analysis in patient care
d) Participate in identifying systems errors and in implementing potential systems solutions

Objectives – first year

• Prioritize the various modes of diagnostic testing and select the most appropriate testing modality, with a goal toward preventing unnecessary laboratory or imaging tests.
• Demonstrate the ability to work effectively with other members of the health care team, including, but not limited to, other physicians, nurses, pharmacists, dietitians, child life specialists, and chaplains.
• Comply with institutional systems that have been developed to prevent errors in the administration of blood transfusion and “high risk” medications, such as immunosuppressive medications, coagulation factor concentrates and anticoagulants.
• Avoid use of ambiguous or unacceptable abbreviations in the medical record, prescriptions and medical orders.
• Work effectively with the discharge planner to arrange home-care and follow-up for discharged patients.
• Work with pain management team to provide adequate and appropriate pain control to outpatients and patients on hospice.
- Acknowledge medical errors in a forthright manner, and report observed medical errors (real or potential) to the appropriate member of the care team, then work with the team to develop a plan for preventing future errors. Specifically for chemotherapy, this would require a report to the chemotherapy task force.

**Objectives – second year**

- All of the first year objectives, plus:
  - Become increasingly independent in all objectives
  - Recognize the “business model” of medicine and strive to maintain excellence in both health-care cost efficiency and delivery of excellent health care

**Objectives – third year**

- All of the second-year objectives, plus:
  - Demonstrate the ability to function independently and without supervision in all areas
  - Navigate “the system” of health care delivery at the level that would be expected of an attending physician, while maintaining the balance between evidence-based health care delivery and cost containment

**Teaching methods**

a) Continuous interaction with clinical faculty in all decisions made for inpatients  
b) Weekly clinical oncology rounds  
c) Weekly tumor board  
d) Weekly fellows didactic conference

**Assessment methods (fellows)**

a) Global assessments are completed by faculty at the end of the rotation. These assessments are shared with the fellow by written and verbal communication and reviewed with the fellow during a semiannual meeting with the program director and clinical advisor.  
b) Twice yearly multisource evaluations by multiple members of the interdisciplinary team and patients/families.  
c) Direct observation

**Assessment methods (Program evaluation)**

a) Fellows complete a yearly, anonymous, confidential evaluation of the rotation  
b) Monthly faculty meetings review the progress of each fellow and the program in general  
c) Yearly meeting for the faculty and fellows to review the program in general

**Level of supervision**

a) The fellow on this rotation works under the supervision of a clinical faculty member at all times  
b) During night call there is a clinical faculty member available at all times to discuss calls and patient issues

**Reading List:**

2) Orkin: *Oncology of Infancy and Childhood* (2009)

ADDENDUM – CONTINUITY CLINIC

OVERALL DESCRIPTION

- Fellows start their own personal continuity clinic experience in their first year, and this continuity experience continues throughout all three years of their training. Fellows are assigned their own patients, and subsequent patient visits are scheduled with the same fellow during his/her continuity clinic. Each continuity clinic has an attending physician assigned to provide continuous guidance and supervision for the fellow.

- Every effort is made to ensure that continuity of care is preserved for patients that are initially seen by a fellow on the inpatient setting and that the patient is seen by the same fellow in the outpatient clinic.

The goals, objectives, teaching methods, evaluation methods, and level of supervision are the same as for the outpatient clinic rotation.
NEURO-ONCOLOGY ROTATION

OVERALL DESCRIPTION

• This rotation is designed to provide an exposure to the multidisciplinary process that is required to treat a patient with a tumor affecting the central nervous system.
• The rotation lasts two weeks and is anchored by a core bibliography and set of didactic lectures that will cover diagnosis, treatment, long term toxicity, psychosocial, and quality of life issues related to pediatric and adolescent patients with primary brain and spinal cord tumors.
• In addition to seeing patients on active therapy and long term follow-up, fellows are responsible for consulting on newly diagnosed and relapsed patients.
• Fellows follow patients through various aspects of the multidisciplinary approach, including: diagnostic neuroradiology, neurosurgery (with various specialized neurosurgical techniques), histopathology, neuro-oncology tumor board, radiation oncology simulation and treatment planning, and chemotherapeutic and biologic therapy planning.
• PCH has a comprehensive Rehabilitation Program which includes: neuro-endocrinology, audiology, physical therapy, occupational therapy, speech therapy, nutrition/alternative therapy, and neuropsychology. Fellows spend time with these services to gain a better appreciation of the process when a patient is referred for intervention.
• There is a neuro-oncology tumor board that meets biweekly to discuss patients, and fellows are expected to attend and present to the tumor board during this rotation.
• Through PCH’s association with the Children’s Oncology Group (COG), fellows become familiar with international co-operative group and clinical Phase II & III studies, as well as biology, epidemiology, and supportive care/quality of life studies.
• Through PCH’s affiliation with the Pediatric Oncology Experimental Therapeutics Investigators Consortium (POETIC) and the Children’s Neuro-Oncology Consortium (CNC), fellows become involved with Phase I & II studies with pediatric neuro-oncologists from some of the leading pediatric hematology/oncology programs in North America.
• Through PCH’s affiliation with the Translational Genomic Research Institute (TGEN), fellows become familiar with gene microarrays, genomic and proteomic profiling, and drug development with regard to brain tumor therapeutics.
• In addition to all of the above, the neuro-oncology rotation can be tailored to meet the fellows’ individual education and research needs.

GOALS AND OBJECTIVES

a. Patient Care

  Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
  (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

  • Through supervised clinical experiences, fellows will develop their skills in initial assessment, diagnostic workup, and management of the neuro-oncology patient.
  • Fellows will become familiar with the specialized aspects of the neuro-oncology service and will learn how to function as a vital member of an interdisciplinary team.
  • Fellows will learn how to counsel a new neuro-oncology patient and his/her family with confidence and compassion.

b. Medical Knowledge
Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.

(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

- Fellows are required to demonstrate knowledge in the clinical aspects of neuro-oncology conditions of childhood. Knowledge is acquired through clinical care and related experiences and as well as didactic lectures. Fellows are expected to participate in didactic lectures. Fellows are expected gain sufficient knowledge and experience to sit for and successfully pass the Board Exam in Pediatric Hematology/Oncology. Topics include (but are not limited to):

1. Epidemiology, predisposing factors, and genetics of tumors affecting the central nervous system
2. Pathologic subtypes of brain tumors relative to prognosis
3. Pathologic subtypes of brain tumors relative to primary tumor site and pattern of spread
4. Relationship between histologic grade of gliomas and prognosis
5. Clinical presentation of brain tumors by anatomic site
6. Clinical and pathologic characteristics of pediatric brain tumors
7. Relationship between age and anatomic site in the clinical presentation of brain tumors
8. Clinical, laboratory, and imaging manifestations of different central nervous system tumors (including, but not limited to):
   a. Medulloblastoma
   b. Cerebellar astrocytoma
   c. Brain stem glioma
   d. Pineal tumor
   e. Ependymoma
   f. Primitive neuroectodermal tumor
   g. Optic pathway glioma
   h. Glioblastoma multiforme
   i. Anaplastic astrocytoma
   j. Germ cell tumor of the central nervous system
9. Appropriate imaging modalities to determine the extent and metastatic spread of brain tumors
10. Association of central nervous system tumors with spinal cord metastases
11. Association of central nervous system tumors with cerebrospinal fluid abnormalities
12. Role of surgery, irradiation, and chemotherapy in the treatment of brain tumors
13. Monitoring the response to treatment of brain tumors using clinical modalities
14. Monitoring the response to treatment of brain tumors using imaging modalities
15. Monitoring the response to treatment of brain tumors using biochemical markers
16. Monitoring the response to treatment of brain tumors using histologic markers
17. Prognosis and natural history of brain tumors according to stage and histology
18. Complications and late effects of brain tumors and their treatment in patients of various ages
19. Secondary malignancies associated with treatment of brain tumors
20. Potential neurologic, endocrine, and intellectual sequelae of brain tumors and their treatment
21. Complications and late effects of surgery performed in the treatment of brain tumors
22. Complications and late effects of irradiation in the treatment of brain tumors

(Source: Program Requirements for Fellowship Education in Pediatric Hematology/Oncology (V.B.), ACGME, 7/1/07)
Other structured educational experiences included didactic, case-based, and practical training in the following topics:

1. Health care practice management and the business of medicine
2. Clinical outcomes in neuro-oncology
3. Prevention of medical errors
4. Demonstrating skill in communication and counseling
5. Provision of comprehensive care within a multidisciplinary treatment team
6. Proper use of laboratory and imaging techniques for diagnosis, with recognition of the limitations of the various methods and the pitfalls in interpretation of laboratory and imaging results

**c. Practice-Based Learning and Improvement**

_Fellows must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning._

(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

- Fellows will hone their interpretation of laboratory and imaging workup for tumors of the central nervous system testing by researching and referencing evidence-based practices from the literature. Fellows will also learn to apply proven analytical and statistical methods when forming clinical correlations to these results.
- Fellows will make appropriate use of evidence-based techniques in available information technology.
- Fellows will learn cost-effective and evidence-based use of imaging techniques and referrals to other members of the interdisciplinary neuro-oncology team, such as physical therapy, speech therapy, occupational therapy, nutrition, audiology, neurology, neurosurgery, radiology, radiation oncology, nursing, social work, and endocrinology.
- Fellows are expected to be active and willing participants in the methods of self-critique, with the aid of faculty. Fellows are expected to reflect on their performance as necessary.

**d. Interpersonal and Communication Skills**

_Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals._

(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

- Fellows are expected to learn proper and efficient verbal and written communication skills when interpreting and communicating laboratory and imaging results to patients, families, and other health care providers.
- Fellows are expected to observe and participate in new patient diagnosis and treatment conferences.
- Fellows are expected to gain proficiency in the following:
  
  1. Establish a therapeutic relationship with patients and families
  2. Demonstrate a willingness to listen to nursing and allied staff
  3. Explain information to patients and families using clear, understandable terms
  4. Write orders that are clear and legible
5. Maintain comprehensive, timely, and legible medical records  
6. Consistently participate cooperatively in interdisciplinary rounds  
7. Communicate effectively with other physicians.  
8. Deliver clear, concise, and organized patient presentations during interdisciplinary meetings and the neuro-oncology tumor board  
9. Complete consultations in a timely manner and communicates recommendations clearly and concisely with the consulting medical team  

e. **Professionalism**  
   *Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.*  
   (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)  
   
   - Fellows are expected to improve their performance in the following areas:  
     1. Consistently attend to details of patient comfort and delivery of care  
     2. Accept inconvenience when necessary to meet the needs of the patient  
     3. Consistently respect patient privacy when conducting examinations  
     4. Provide care sensitive to patient’s age, gender, disabilities, cultural/ethnic diversity, and sexual orientation  
     5. Consistently be courteous and receptive to nursing and allied health staff  
     6. Demonstrate consistent and excellent work ethic  
     7. Consistently respond in a timely manner when paged or called  
     8. Consistently follow through on cross-cover issues  
     9. Demonstrate dependability/commitment (patient follow-up, continuity of care)  
    10. Maintain composure during stressful/crisis situations  
    11. Demonstrate honesty/integrity  
    12. Demonstrate high standards of ethical and moral behavior and accountability  
    13. Demonstrate commitment to teaching at all learner levels  
    14. Accept responsibility for errors in medical judgment and learn from one’s mistakes  
   
   - Fellows are expected to self-critique and reflect upon their evaluations by faculty, patients and their families, ancillary staff, and secretarial staff and to continue to strive to become not only a competent clinician, but also an impassioned caregiver.  

d. **Systems-Based Practice**  
   *Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.*  
   (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)  
   
   - Fellows are expected to develop an efficient and cost-effective approach to laboratory testing and imaging for the initial diagnosis and subsequent management of patients with tumors of the central nervous system.  
   - Fellows are expected to learn proper aspects of medical coding and billing with respect to patient care.  
   - Fellows are expected to learn the function of ancillary staff that are available to facilitate health care delivery.
• Fellows are expected to learn how to ensure efficient health care delivery by using other key personnel in the health care delivery system to best take care of their patients.
• Fellows are expected to participate in and learn how the process of performance improvement operates within the context of neuro-oncology.

**Teaching methods**

a) Inpatient rounds both with the interdisciplinary team and on daily work rounds with the inpatient clinical faculty  
b) Outpatient exposure and precepton with neuro-oncology teaching faculty  
c) Continuous interaction with clinical faculty in all decisions made for all patients, both inpatient and outpatient  
d) Weekly clinical oncology rounds with the hematology/oncology division at Phoenix Children’s Hospital  
e) Weekly neuro-oncology tumor board  
f) Didactics as arranged with the neuro-oncology faculty

**Assessment methods (fellows)**

a) Global assessments are completed by faculty at the end of the rotation. These assessments are shared with the fellow by written and verbal communication and reviewed with the fellow during a semiannual meeting with the program director and clinical advisor.  
b) Twice yearly multisource evaluations by multiple members of the interdisciplinary team and patients/families.  
c) Direct observation

**Assessment methods (Program evaluation)**

a) Fellows complete a yearly, anonymous, confidential evaluation of the rotation  
b) Monthly faculty meetings review the progress of each fellow and the program in general  
c) Yearly meeting for the faculty and fellows to review the program in general

**Level of supervision**

a) The fellow on this rotation works under the supervision of a clinical faculty member at all times  
b) During night call there is a clinical faculty member available at all times to discuss calls and patient issues

**Reading List**

2) Gupta, Banerjee, *et al.* *Pediatric CNS Tumors.* (2010)
**OVERALL DESCRIPTION**

- Fellows work exclusively with hematology and special coagulation laboratory faculty at the Division of Transfusion Medicine at Mayo Clinic Hospital and United Blood Services of Arizona in Phoenix. Covered topics include preparation and interpretation of complete blood counts and the peripheral smear for a variety of disorders, as well as preparation and interpretation of special coagulation testing, hemoglobin electrophoresis, immunocytochemistry, immunohistochemistry, and other specialized laboratory tests, including techniques of transfusion medicine, apheresis, blood product collection, and blood product manipulation.

- Appropriate use of and transfusion of the various blood components, including apheresis, platelet pheresis and stem cell harvest and infusion will be learned during direct patient care and during this dedicated training curriculum.

- At United Blood Services, fellows receive didactics and hands-on instruction in ABO/Rh reading and grading, ABO discrepancies, antibody screen and crossmatch issues, blood group systems and nomenclature, HLA typing, elutions and absorptions, neonatal transfusion issues, rosettes and titers, HLA and platelet refractoriness, stem cell transplant issues, therapeutic apheresis, blood product collection, immune hemolysis, transfusion reactions and subsequent workup, tissue typing, granulocyte collection and administration, blood component therapy, blood component modification and manipulation, blood component storage, and blood bank safety/regulatory issues.

- Fellows are expected to participate in both the planning process and implementation of bone marrow and peripheral stem cell harvests, therapeutic apheresis, and stem cell infusions during their clinical rotations. Didactic sessions addressing these concepts are given by the bone marrow transplant and transfusion medicine experts of the teaching faculty.

**a. Patient Care**

> *Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.*

*(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)*

- Through supervised clinical and laboratory-based experiences, fellows will develop their skills in forming appropriate clinical correlations to blood tests performed in the workup of a hematologic disorder.

- Fellows will become proficient in the daily operation of a blood donation center, including familiarity with prospective donor eligibility questionnaires, blood product collection (including apheresis), storage, manipulation, and administration. Fellows will be able to counsel a blood donor or recipient with confidence and compassion.

**b. Medical Knowledge**

> *Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.*

*(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)*

- Fellows are required to demonstrate knowledge in the basic sciences and applied clinical aspects of hematologic conditions of childhood. Knowledge is acquired through laboratory-based care and related experiences and as well as didactic lectures. Fellows are expected to participate in didactic lectures. Fellows are expected gain sufficient knowledge and experience to sit for and successfully pass the Board Exam in Pediatric Hematology/Oncology. Topics include (but are not limited to):
1. Hematologic disorders of the newborn
2. Hemoglobinopathies, including the thalassemia syndromes
3. Inherited and acquired disorders of the red-blood-cell membrane and of red-blood cell metabolism
4. Autoimmune disorders, including hemolytic anemia
5. Nutritional anemia
6. Inherited and acquired disorders of white blood cells
7. Hemophilia, von Willebrand's disease, and other inherited and acquired coagulopathies
8. Platelet disorders, including idiopathic thrombocytopenic purpura (ITP), and acquired and inherited platelet function defects
9. Congenital and acquired thrombotic disorders
10. Leukemias, including acute lymphoblastic leukemia, acute and chronic myeloid leukemias, and myelodysplastic syndromes
11. Bone marrow failure
12. Transfusion medicine and use of blood products
13. Management of the patient undergoing long-term transfusion therapy

(Source: Program Requirements for Fellowship Education in Pediatric Hematology/Oncology (V.B.), ACGME, 7/1/07)

Other structured educational experiences included didactic, case-based, and practical training in the following topics:

1. Health care practice management and the business of medicine
2. Clinical outcomes in transfusion medicine
3. Prevention of medical errors
4. Demonstrating skill in communication and counseling
5. Provision of comprehensive care
6. Proper use of laboratory techniques for diagnosis, with recognition of the limitations of the various methods and the pitfalls in interpretation of laboratory results

**c. Practice-Based Learning and Improvement**

Fellows must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.

(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

- Fellows will hone their interpretation of laboratory testing by researching and referencing evidence-based practices from the literature. Fellows will also learn to apply proven analytical and statistical methods when forming clinical correlations to laboratory results.
- Fellows will make appropriate use of evidence-based techniques in available information technology.
- Fellows will learn cost-effective and evidence-based use of human blood products.
- Fellows are expected to be active and willing participants in the methods of self-critique, with the aid of faculty. Fellows are expected to reflect on their performance as necessary.

**d. Interpersonal and Communication Skills**

Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
• Fellows are expected to learn proper and efficient verbal and written communication skills when interpreting and communicating test results to patients, families, and other health care providers.
• Fellows are expected to observe and participate in blood donor and recipient counseling sessions.
• Fellows are expected to gain proficiency in the following:
  1. Establish a therapeutic relationship with patients and families
  2. Demonstrate a willingness to listen to nursing and allied staff
  3. Explain information to patients and families using clear, understandable terms
  4. Write orders that are clear and legible
  5. Maintain comprehensive, timely, and legible medical records
  6. Consistently participate cooperatively in interdisciplinary rounds
  7. Communicate effectively with other physicians.
  8. Deliver clear, concise, and organized patient presentations during laboratory meetings.
  9. Complete consultations in a timely manner and communicates recommendations clearly and concisely with the consulting medical team

c. **Professionalism**

   Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

   (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

   Fellows are expected to improve their performance in the following areas:

   1. Consistently attend to details of patient comfort and delivery of care
   2. Accept inconvenience when necessary to meet the needs of the patient
   3. Consistently respect patient privacy when conducting examinations
   4. Provide care sensitive to patient’s age, gender, disabilities, cultural/ethnic diversity, and sexual orientation
   5. Consistently be courteous and receptive to nursing and allied health staff
   6. Demonstrate consistent and excellent work ethic
   7. Consistently respond in a timely manner when paged or called
   8. Consistently follow through on cross-cover issues
   9. Demonstrate dependability/commitment (patient follow-up, continuity of care)
   10. Maintain composure during stressful/crisis situations
   11. Demonstrate honesty/integrity
   12. Demonstrate high standards of ethical and moral behavior and accountability
   13. Demonstrate commitment to teaching at all learner levels
   14. Accept responsibility for errors in medical judgment and learn from one’s mistakes

• Fellows are expected to self-critique and reflect upon their evaluations by faculty, patients and their families, ancillary staff, and secretarial staff and to continue to strive to become not only a competent clinician, but also an impassioned caregiver.

f. **Systems-Based Practice**

   Fellows must demonstrate an awareness of and responsiveness to the larger context and
system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

- Fellows are expected to learn how to order and process efficient and cost-effective laboratory testing and blood products.
- Fellows are expected to learn proper aspects of medical coding and billing with respect to patient care.
- Fellows are expected to learn the function of laboratory-based staff that are available to facilitate health care delivery.
- Fellows are expected to learn how to ensure efficient health care delivery by using other key personnel in the health care delivery system to best take care of their patients.
- Fellows are expected to participate in and learn how the process of performance improvement operates within the context of laboratory and transfusion medicine.

**Teaching methods**
- a) Didactics as arranged with the laboratory medicine and transfusion medicine faculty
- b) Independent reading
- c) Shadowing and hands-on benchwork with laboratory or transfusion medicine faculty and laboratory technicians

**Assessment methods (fellows)**
- a) Global assessments are completed by faculty at the end of the rotation. These assessments are shared with the fellow by written and verbal communication and reviewed with the fellow during a semiannual meeting with the program director and clinical advisor.
- b) Twice yearly multisource evaluations by multiple members of the interdisciplinary team and patients/families.
- c) Direct observation

**Assessment methods (Program evaluation)**
- a) Fellows complete a yearly, anonymous, confidential evaluation of the rotation
- b) Monthly faculty meetings review the progress of each fellow and the program in general
- c) Yearly meeting for the faculty and fellows to review the program in general

**Level of supervision**
- a) The fellow on this rotation works under the supervision of a clinical faculty member at all times

**Reading List**
IMMUNOLOGY ROTATION

OVERALL DESCRIPTION

- Fellows have an opportunity to see patients with congenital and acquired immunodeficiencies in the outpatient setting and as inpatient consultations. Clinical supervision is provided by immunology faculty in both the inpatient and outpatient settings.
- Fellows see mostly pediatric (with a minority of adult) patients with acquired and congenital immunodeficiencies in the outpatient setting, as well as perform inpatient consultations with appropriate supervision and instruction by clinical faculty.
- Didactics regarding principles of immunology and their clinical application is provided by clinical faculty.

GOALS AND OBJECTIVES

a. **Patient Care**

   Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

   (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

   - Through supervised clinical experiences, fellows will develop their skills in the diagnosis, treatment, and follow-up of a patient with an immunologic disorder.
   - Fellows will understand the relationship between malignancies and disorders of the immune system and how to effectively counsel patients who present with this relationship.

b. **Medical Knowledge**

   Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.

   (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

   - Fellows are required to demonstrate knowledge in the basic sciences and applied clinical aspects of immunologic conditions of childhood. Knowledge is acquired through clinical interactions and related experiences and as well as didactic lectures. Fellows are expected to participate in didactic lectures.
   - Fellows are expected gain sufficient knowledge and experience to sit for and successfully pass the Board Exam in Pediatric Hematology/Oncology. Topics include (but are not limited to): Wiskott-Aldrich syndrome, DiGeorge syndrome, common variable immune deficiency, severe combined immune deficiency, X-linked lymphoproliferative disease, complement defects, X-linked agammaglobulinemia, and acquired immunodeficiency syndrome.

c. **Practice-Based Learning and Improvement**

   Fellows must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.

   (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

   - Fellows will develop their knowledge of congenital and acquired immunodeficient states by researching and referencing evidence-based practices from the literature.
• Fellows will make appropriate use of evidence-based techniques in available information technology.
• Fellows will learn cost-effective and evidence-based treatment of immunodeficiencies.
• Fellows are expected to be active and willing participants in the methods of self-critique, with the aid of faculty. Fellows are expected to reflect on their performance as necessary.

d. **Interpersonal and Communication Skills**

  *Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.*

(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

• Fellows are expected to learn proper and efficient verbal and written communication skills when interpreting and communicating test results to patients, families, and other health care providers.
• Fellows are expected to observe and participate in counseling sessions of a newly diagnosed patient/family with an immunodeficiency.
• Fellows are expected to gain proficiency in the following:
  1. Establish a therapeutic relationship with patients and families
  2. Demonstrate a willingness to listen to nursing and allied staff
  3. Explain information to patients and families using clear, understandable terms
  4. Write orders that are clear and legible
  5. Maintain comprehensive, timely, and legible medical records
  6. Consistently participate cooperatively in interdisciplinary rounds
  7. Communicate effectively with other physicians
  8. Deliver clear, concise, and organized patient presentations when discussing a new patient consultation
  9. Complete consultations in a timely manner and communicate recommendations clearly and concisely with the consulting medical team

  (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)
  
• Fellows are expected to improve their performance in the following areas:
  1. Consistently attend to details of patient comfort and delivery of care
  2. Accept inconvenience when necessary to meet the needs of the patient
  3. Consistently respect patient privacy when conducting examinations
  4. Provide care sensitive to patient’s age, gender, disabilities, cultural/ethnic diversity, and sexual orientation
  5. Consistently be courteous and receptive to nursing and allied health staff
  6. Demonstrate consistent and excellent work ethic
  7. Consistently respond in a timely manner when paged or called
  8. Consistently follow through on cross-cover issues
  9. Demonstrate dependability/commitment (patient follow-up, continuity of care)
  10. Maintain composure during stressful/crisis situations
11. Demonstrate honesty/integrity
12. Demonstrate high standards of ethical and moral behavior and accountability
13. Demonstrate commitment to teaching at all learner levels
14. Accept responsibility for errors in medical judgment and learn from one’s mistakes

- Fellows are expected to self-critique and reflect upon their evaluations by faculty, patients and their families, ancillary staff, and secretarial staff and to continue to strive to become not only a competent clinician, but also an impassioned caregiver.

f. Systems-Based Practice

*Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.*

(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

- Fellows are expected to learn how to order efficient and cost-effective laboratory testing and in the diagnosis and follow-up of patients with immunodeficient states.
- Fellows are expected to learn proper aspects of medical coding and billing with respect to patient care.
- Fellows are expected to learn the function of office-based staff that is available to facilitate health care delivery.
- Fellows are expected to learn how to ensure efficient health care delivery by using other key personnel in the health care delivery system to best take care of their patients.
- Fellows are expected to participate in and learn how the process of performance improvement operates within the context of immunologic medicine.

**Teaching methods**

a) Outpatient clinical exposure with preception by immunology faculty  
   b) Inpatient consultations with preception by immunology faculty  
   c) Continuous interaction with clinical faculty in all decisions made for all patients, both inpatient and outpatient  
   d) Didactics as arranged with the immunology faculty  

**Assessment methods (fellows)**

a) Global assessments are completed by faculty at the end of the rotation. These assessments are shared with the fellow by written and verbal communication and reviewed with the fellow during a semiannual meeting with the program director and clinical advisor.  
   b) Twice yearly multisource evaluations by multiple members of the interdisciplinary team and patients/families.  
   c) Direct observation  

**Assessment methods (Program evaluation)**

a) Fellows complete a yearly, anonymous, confidential evaluation of the rotation  
   b) Monthly faculty meetings review the progress of each fellow and the program in general  
   c) Yearly meeting for the faculty and fellows to review the program in general  

**Level of supervision**

a) The fellow on this rotation works under the supervision of a clinical faculty member at all times
Reading List

CYTOGENETICS ROTATION

OVERALL DESCRIPTION

• The educational experience lasts one week, and it provides instruction in basic cytogenetic laboratory techniques, including harvest, banding, chromosome analysis, and karyotyping, and fluorescent in-situ hybridization, with applications to clinical medicine. Fellows learn common cytogenetic abnormalities associated with both liquid and solid tumors, and he/she gains an appreciation of serial sample interpretation.

• Fellows also gain experience in basic cytogenetic nomenclature and learn how to interpret cytogenetic reports.

GOALS AND OBJECTIVES

a. Patient Care

Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

• Through supervised clinical and laboratory-based experiences, fellows will develop their skills in forming appropriate clinical correlations to blood tests performed in the workup of a hematologic or oncologic disorder.

• Fellows will become familiar with the daily operation of a clinical cytogenetics facility. Fellows will be able to counsel a patient regarding pre-testing and medical/legal issues as well as discussion of results with confidence and compassion.

b. Medical Knowledge

Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.
(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

Fellows are required to demonstrate knowledge in the basic sciences and applied clinical aspects of cytogenetic abnormalities in the context of hematologic and oncologic abnormalities. Knowledge is acquired through laboratory-based care and related experiences and as well as didactic lectures. Fellows are expected to participate in didactic lectures. Fellows are expected gain sufficient knowledge and experience to sit for and successfully pass the Board Exam in Pediatric Hematology/Oncology. Topics include techniques in cell culture, normal and abnormal karyotyping, fluorescent in situ hybridization techniques, cytogenetic nomenclature, and molecular cytogenetics.

Other structured educational experiences included didactic, case-based, and practical training in the following topics:

1. Health care practice management and the business of medicine
2. Prevention of medical errors
3. Demonstrating skill in communication and counseling
4. Proper use of cytogenetic laboratory techniques for diagnosis, with recognition of the limitations of the various methods and the pitfalls in interpretation of laboratory results
5. Privacy and legal issues regarding cytogenetic testing
c. **Practice-Based Learning and Improvement**

   Fellows must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.

   (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

   - Fellows will hone their interpretation of cytogenetic testing by researching and referencing evidence-based practices from the literature. Fellows will also learn to apply proven analytical and statistical methods when forming clinical correlations to cytogenetic results.
   - Fellows will make appropriate use of evidence-based techniques in available information technology.
   - Fellows will learn cost-effective and evidence-based use of cytogenetic testing.
   - Fellows are expected to be active and willing participants in the methods of self-critique, with the aid of faculty. Fellows are expected to reflect on their performance as necessary.

d. **Interpersonal and Communication Skills**

   Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

   (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

   - Fellows are expected to learn proper and efficient verbal and written communication skills when interpreting and communicating test results to patients, families, and other health care providers.
   - Fellows are expected to observe and participate in patient counseling sessions regarding pre-testing, medical/legal issues, and interpretation of cytogenetic results.
   - Fellows are expected to gain proficiency in the following:
     1. Establish a therapeutic relationship with patients and families
     2. Demonstrate a willingness to listen to nursing and allied staff
     3. Explain information to patients and families using clear, understandable terms
     4. Write orders that are clear and legible
     5. Maintain comprehensive, timely, and legible medical records
     6. Consistently participate cooperatively in interdisciplinary rounds
     7. Communicate effectively with other physicians
     8. Deliver clear, concise, and organized patient presentations during laboratory meetings
     9. Complete consultations in a timely manner and communicates recommendations clearly and concisely with the consulting medical team

e. **Professionalism**

   Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

   (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

   - Fellows are expected to improve their performance in the following areas:
     1. Consistently attend to details of patient comfort and delivery of care
2. Accept inconvenience when necessary to meet the needs of the patient
3. Consistently respect patient privacy when conducting examinations
4. Provide care sensitive to patient’s age, gender, disabilities, cultural/ethnic diversity, and sexual orientation
5. Consistently be courteous and receptive to nursing and allied health staff
6. Demonstrate consistent and excellent work ethic
7. Consistently respond in a timely manner when paged or called
8. Consistently follow through on cross-cover issues
9. Demonstrate dependability/commitment (patient follow-up, continuity of care)
10. Maintain composure during stressful/crisis situations
11. Demonstrate honesty/integrity
12. Demonstrate high standards of ethical and moral behavior and accountability
13. Demonstrate commitment to teaching at all learner levels
14. Accept responsibility for errors in medical judgment and learn from one’s mistakes

- Fellows are expected to self-critique and reflect upon their evaluations by faculty, patients and their families, ancillary staff, and secretarial staff and to continue to strive to become not only a competent clinician, but also an impassioned caregiver.

f. Systems-Based Practice

Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

- Fellows are expected to learn how to order and process efficient and cost-effective cytogenetic testing.
- Fellows are expected to learn proper aspects of medical coding and billing with respect to patient care.
- Fellows are expected to learn the function of laboratory-based staff that are available to facilitate health care delivery.
- Fellows are expected to learn how to ensure efficient health care delivery by using other key personnel in the health care delivery system to best take care of their patients.
- Fellows are expected to participate in and learn how the process of performance improvement operates within the context of cytogenetics and medicine.

Teaching methods

a) Didactics as arranged with the cytogenetics faculty
b) Independent reading
c) Shadowing and hands-on benchwork with cytogeneticists and laboratory technicians

Assessment methods (fellows)

a) Global assessments are completed by faculty at the end of the rotation. These assessments are shared with the fellow by written and verbal communication and reviewed with the fellow during a semiannual meeting with the program director and clinical advisor.
b) Twice yearly multisource evaluations by multiple members of the interdisciplinary team and patients/families.
c) Direct observation
Assessment methods (Program evaluation)
   a) Fellows complete a yearly, anonymous, confidential evaluation of the rotation
   b) Monthly faculty meetings review the progress of each fellow and the program in general
   c) Yearly meeting for the faculty and fellows to review the program in general

Level of supervision
   a) The fellow on this rotation works under the supervision of a clinical faculty member at all times

Reading List
   1) Mark: Medical Cytogenetics (2000)
   2) Heim and Mitelman: Cancer Cytogenetics, 3rd Ed. (2009)
BONE MARROW TRANSPLANTATION

OVERALL DESCRIPTION

- During the day, fellows are responsible for the overall care of the inpatients (and time permitting, outpatients) covered by the bone marrow transplantation service at Phoenix Children’s Hospital. The service are covered by a faculty member and a nurse practitioner or physician’s assistant at all times. Fellows round with the clinical faculty exclusively during the day, and they can also cover patients of good educational value on the other attending physician’s service. They are responsible for performing initial consults from other inpatient services, followed by discussion and supervision by the inpatient attending physician. All procedures, including bone marrow harvests, are performed under faculty supervision.

- If the inpatient service workload permits, the fellow will see patients in the outpatient clinic under the supervision of bone marrow transplant faculty.

- As fellows gain more experience in clinical care, they receive more autonomy from the teaching attending, but each patient still is discussed in its entirety before implementing recommendations and a plan of action.

- Fellows are supervised in a similar manner by the teaching attending physician with regard to leading family care conferences during which complex diagnoses and treatment plans are discussed.

- Inpatient rounds typically start daily at 8:30 AM with the bone marrow transplantation interdisciplinary team and last until 9:15 AM. Patients admitted to the intensive care unit typically are “co-managed” by the bone marrow transplant team and the intensivists.

- Rounds are attended by fellows, attending physicians, inpatient nurses, pediatric residents, inpatient nurse practitioners, pharmacy staff with specialization in chemotherapy, nutritionists, and pain service staff. It is during these rounds that fellows acquire the skill set to discuss patient status changes in the prior 24 hours, to review and interpret any new findings on the patient history or physical exam, laboratory testing, or medical imaging, and to formulate a daily treatment plan based on these data. Full teaching rounds are held seven days per week, 52 weeks per year.

- Didactic and interactive teaching of pertinent topics in stem cell transplantation will be given by faculty members during the rotation.

GOALS AND OBJECTIVES

a. Patient Care

Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

- Through supervised clinical experiences, fellows will develop their skills in the initial workup, treatment, and follow-up of a patient who is undergoing a hematopoietic stem cell transplant.

- The fellow will gain experience in management of patients with the following problems:
  1. Diagnostic evaluations and staging of new transplant patients and determining treatment plans for new transplant patients
  2. Staging and reassessment of established patients
  3. Administration of preparative regimens
  4. Management of complications such as nausea and vomiting, infections, febrile neutropenia, mucositis, and pain
5. Provision of nutrition, both enteral and parenteral
6. Use of blood components
7. Care of terminally ill patients

- Through presentations of patients seen, fellows will develop the ability to report a detailed and appropriate history and physical examination along with pertinent diagnostic studies.
- Fellows will develop and provide rationale for the management plans of children on the transplant service.
- Fellows will discriminate changes in clinical status of patients or severity of clinical status of patients that need to be reported to the attending physician immediately from those which can be presented in rounds.
- Fellows will develop and provide rationale for the management plans of children with acute life-threatening or major organ-threatening disease, including (but not limited to) sepsis and acute neurological compromise.
- Fellows will recognize the indications for and the risks of the following therapies and develop appropriate management plans for common complications of central venous lines, chemotherapy, transfusion therapy, radiation therapy, surgical therapy, nutritional support, and pain management.
- When requesting consultation services, fellows will demonstrate the ability to formulate an appropriate question and rationale justified by pertinent points of the history, physical examination, and laboratory data.
- Fellows will discriminate between patients who may be appropriately treated on the inpatient unit, and those who require escalation of care.
- Fellows will recognize the indications for, the common complications of, and perform the following procedures while on the transplant service: conscious sedation, bone marrow aspiration, and bone marrow biopsy.

b. Medical Knowledge

*Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.*

(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

- Fellows are required to demonstrate knowledge in the basic sciences and applied clinical aspects of stem cell transplantation during childhood. Knowledge is acquired through clinical interactions and related experiences and as well as didactic lectures. Fellows are expected to participate in didactic lectures.
- Fellows are expected gain sufficient knowledge and experience to sit for and successfully pass the Board Exam in Pediatric Hematology/Oncology. Topics include (but are not limited to):
  1. Types of hematopoietic stem cell transplantation
  2. Sources of cells for hematopoietic stem cell transplantation
  3. Interpretation and clinical application of HLA typing
  4. Recognition, diagnosis, and management of acute and chronic graft-versus-host disease and graft rejection
  5. Indications for hematopoietic stem cell transplantation in various malignancies, bone marrow failure syndromes, immunodeficiencies, storage diseases, hemoglobinopathies, and other genetic disorders
  6. Methods of donor selection and selection of appropriate conditioning regimens for hematopoietic stem cell transplantation
7. Methods of hematopoietic stem cell collection, including bone marrow harvest, peripheral stem cell collection, and umbilical cord blood collection
8. Methods of hematopoietic stem cell processing, including T-cell depletion and purging
9. Recognition and management of fever and/or infections in the transplant patient
10. Processes of immune reconstitution after hematopoietic stem cell transplantation
11. Recognition, diagnosis, and management of non-infectious complications of hematopoietic stem cell transplantation, including (but not limited to):
   a. Unique problems of patients with Fanconi anemia, and other DNA-repair defects
   b. Factors that increase the risk of post transplantation EBV-lymphoproliferative disease
   c. Causes of interstitial pneumonitis following transplantation
   d. Signs, symptoms, and diagnostic findings of hepatic veno-occlusive disease following transplantation
   e. Risk of and factors associated with cardiac failure following transplantation
   f. Risk of and factors associated with renal dysfunction following transplantation
   g. Toxicities associated with hematopoietic stem cell infusion
   h. Clinical presentation, laboratory findings, and treatment of thrombotic thrombocytopenic purpura and hemolytic-uremic syndrome associated with transplantation
   i. Risk of and factors associated with hepatic dysfunction following transplantation
   j. Risk for the development of cataracts in patients who have undergone transplantation
   k. Risk of infertility after transplantation
   l. Risk for development of endocrinopathies in patients who have undergone transplantation
   m. Risk of impaired growth in patients who have undergone transplantation
   n. Relationship of the conditioning regimen and the complications of transplantation
   o. Risk of second malignancies following transplantation
   p. Risk of and factors associated with chronic lung disease following transplantation
   q. Factors influencing post-transplant survival versus chemotherapy alone

c. **Practice-Based Learning and Improvement**

   Fellows must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.

   (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

   - Fellows will develop their knowledge of principles of hematopoietic stem cell transplantation by researching and referencing evidence-based practices from the literature.
• Fellows will make appropriate use of evidence-based techniques in available information technology.
• Fellows will learn cost-effective and evidence-based treatment of transplant patients.
• Fellows are expected to be active and willing participants in the methods of self-critique, with the aid of faculty. Fellows are expected to reflect on their performance as necessary.
• Fellows are expected to participate in the education of patients, families, students and residents and other health professionals.
• Fellows will learn to use the Children’s Oncology Group (COG) website effectively for information on clinical trials as they relate to patients undergoing hematopoietic stem cell transplantation.
• Fellows are expected to provide at least daily updates to patients and their families regarding the plan of care.

• Fellows will make appropriate use of evidence-based techniques in available information technology.
• Fellows will learn cost-effective and evidence-based treatment of transplant patients.
• Fellows are expected to be active and willing participants in the methods of self-critique, with the aid of faculty. Fellows are expected to reflect on their performance as necessary.
• Fellows are expected to participate in the education of patients, families, students and residents and other health professionals.
• Fellows will learn to use the Children’s Oncology Group (COG) website effectively for information on clinical trials as they relate to patients undergoing hematopoietic stem cell transplantation.
• Fellows are expected to provide at least daily updates to patients and their families regarding the plan of care.

d. Interpersonal and Communication Skills
Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

• Fellows are expected to learn proper and efficient verbal and written communication skills when interpreting and communicating test results to patients, families, and other health care providers.
• Fellows are expected to observe and participate in counseling sessions of a newly diagnosed patient/family with an immunodeficiency.
• Fellows will learn effective communication with physicians and other health professionals and health related agencies.
• Fellows will develop proficiency in maintaining comprehensive, timely and legible medical records.
• Fellows will learn how to communicate effectively and in a developmentally appropriate manner with patients and families to create and sustain a professional and therapeutic relationship across a broad range of socioeconomic and cultural backgrounds.
• Fellows will develop the skills to lead the discussion with the family of a child who is about to undergo hematopoietic stem cell transplantation.
• Fellows will obtain informed consent for fellow-performed procedures, conscious sedation and protocol-based therapies for transplantation.
• Fellows will learn to communicate changes in patient status effectively to attending physicians and interdisciplinary team.
• Fellows will learn to present the in-patient transplant service during daily clinical rounds and during weekly departmental meetings.
• Fellows will communicate with primary care physicians and keep them informed as to their patient’s clinical status during the transplant process.
• Fellows will complete consultations in a timely manner and communicate recommendations clearly and concisely with the consulting medical team.

• Fellows will make appropriate use of evidence-based techniques in available information technology.
• Fellows will learn cost-effective and evidence-based treatment of transplant patients.
• Fellows are expected to be active and willing participants in the methods of self-critique, with the aid of faculty. Fellows are expected to reflect on their performance as necessary.
• Fellows are expected to participate in the education of patients, families, students and residents and other health professionals.
• Fellows will learn to use the Children’s Oncology Group (COG) website effectively for information on clinical trials as they relate to patients undergoing hematopoietic stem cell transplantation.
• Fellows are expected to provide at least daily updates to patients and their families regarding the plan of care.

• Fellows will make appropriate use of evidence-based techniques in available information technology.
• Fellows will learn cost-effective and evidence-based treatment of transplant patients.
• Fellows are expected to be active and willing participants in the methods of self-critique, with the aid of faculty. Fellows are expected to reflect on their performance as necessary.
• Fellows are expected to participate in the education of patients, families, students and residents and other health professionals.
• Fellows will learn to use the Children’s Oncology Group (COG) website effectively for information on clinical trials as they relate to patients undergoing hematopoietic stem cell transplantation.
• Fellows are expected to provide at least daily updates to patients and their families regarding the plan of care.

d. Interpersonal and Communication Skills
Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

• Fellows are expected to learn proper and efficient verbal and written communication skills when interpreting and communicating test results to patients, families, and other health care providers.
• Fellows are expected to observe and participate in counseling sessions of a newly diagnosed patient/family with an immunodeficiency.
• Fellows will learn effective communication with physicians and other health professionals and health related agencies.
• Fellows will develop proficiency in maintaining comprehensive, timely and legible medical records.
• Fellows will learn how to communicate effectively and in a developmentally appropriate manner with patients and families to create and sustain a professional and therapeutic relationship across a broad range of socioeconomic and cultural backgrounds.
• Fellows will develop the skills to lead the discussion with the family of a child who is about to undergo hematopoietic stem cell transplantation.
• Fellows will obtain informed consent for fellow-performed procedures, conscious sedation and protocol-based therapies for transplantation.
• Fellows will learn to communicate changes in patient status effectively to attending physicians and interdisciplinary team.
• Fellows will learn to present the in-patient transplant service during daily clinical rounds and during weekly departmental meetings.
• Fellows will communicate with primary care physicians and keep them informed as to their patient’s clinical status during the transplant process.
• Fellows will complete consultations in a timely manner and communicate recommendations clearly and concisely with the consulting medical team.

e. Professionalism
Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.
(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)
Fellows are expected to improve their performance in the following areas:

1. Consistently attend to details of patient comfort and delivery of care
2. Accept inconvenience when necessary to meet the needs of the patient
3. Consistently respect patient privacy when conducting examinations
4. Provide care sensitive to patient’s age, gender, disabilities, cultural/ethnic diversity, and sexual orientation
5. Consistently be courteous and receptive to nursing and allied health staff
6. Demonstrate consistent and excellent work ethic
7. Consistently respond in a timely manner when paged or called
8. Demonstrate dependability/commitment (patient follow-up, continuity of care)
9. Maintain composure during stressful/crisis situations
10. Demonstrate honesty/integrity
11. Demonstrate high standards of ethical and moral behavior and accountability
12. Demonstrate commitment to teaching at all learner levels
13. Show compassion, integrity and respect for others
14. Show responsiveness to patient needs that supersedes self-interest
15. Show respect for patients’ privacy and autonomy
16. Consistently maintain respect, compassion, integrity, honesty and responsiveness to the needs of patients and the health care team in a way that supersedes self-interest
17. Continually demonstrate accountability to all patients (even if other physicians are primarily responsible for their care)
18. Demonstrate a commitment to excellence and ongoing professional development by being prepared, on-time, in appropriate attire and contributing in rounds, teaching conferences and didactic lectures
19. Exercise sensitivity to the needs of the patient and the parent/guardian by applying cultural awareness, negotiation, compromise and mutual respect in the daily care of patients
20. Recognize and demonstrate an understanding of ethical, cultural, religious or spiritual values of import to patients and families during communications and care decisions
21. Demonstrate a commitment to confidentiality, privacy, and respect for patients and families
22. Demonstrate empathy towards the child and family in negotiating and designing goals of treatment, including relevant medical, legal and psychological issues
23. Demonstrate advocacy for patients and their families
24. Honestly assess one’s contribution to errors that are made, accept responsibility for personal mistakes and implement plans to prevent one’s self and others from making the mistake again.
25. Fellows are expected to self-critique and reflect upon their evaluations by faculty, patients and their families, ancillary staff, and secretarial staff and to continue to strive to become not only a competent clinician, but also an impassioned caregiver.

f. **Systems-Based Practice**

   Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)
• Fellows are expected to learn how to order efficient and cost-effective laboratory testing and in the care of patients in the transplant setting.
• Fellows are expected to learn proper aspects of medical coding and billing with respect to patient care.
• Fellows are expected to learn the function of office-based staff that is available to facilitate health care delivery.
• Fellows are expected to learn how to ensure efficient health care delivery by using other key personnel in the health care delivery system to best take care of their patients.
• Fellows are expected to participate in and learn how the process of performance improvement operates within the context of transplant medicine.
• Fellows also are expected to:
  a. Coordinate patient care within the health care system
  b. Work in inter-professional teams to enhance patient safety and improve patient care quality
  c. Incorporate considerations of cost awareness and risk-benefit analysis in patient care
  d. Participate in identifying systems errors and in implementing potential systems solutions
  e. Demonstrate the ability to work effectively with other members of the health care team, including, but not limited to, other physicians, nurses, pharmacists, dietitians, child life specialists and chaplains
  f. Work effectively with the discharge planner to arrange home-care and follow-up for discharged patients
  g. Work with pain management team to provide adequate and appropriate pain control to hospitalized patients
  h. Work with dietitians to provide nutritional support (including TPN) to hospitalized patients
  i. Acknowledge medical errors in a forthright manner, and report observed medical errors (real or potential) to the appropriate member of the care team, then work with the team to develop a plan for preventing future errors. For chemotherapy, this would require a report to the chemotherapy task force.
  j. Comply with institutional systems that have been developed to prevent errors in the administration of “high risk” medications, such as chemotherapy and immunosuppressive medications.
  k. Avoid use of ambiguous or unacceptable abbreviations in the medical record, prescriptions and medical orders.

Teaching methods
  a) Inpatient rounds both with the interdisciplinary team and on daily work rounds with the inpatient clinical faculty
  b) Continuous interaction with clinical faculty in all decisions made for all patients, both inpatient and outpatient
  c) Weekly clinical oncology rounds with the hematology/oncology division at Phoenix Children’s Hospital
d) Weekly telemedicine clinical oncology rounds with the bone marrow transplantation section at Mayo Clinic Hospital  
e) Weekly tumor board  
f) Didactics as arranged with the bone marrow transplantation faculty

**Assessment methods (fellows)**  

a) Global assessments are completed by faculty at the end of the rotation. These assessments are shared with the fellow by written and verbal communication and reviewed with the fellow during a semiannual meeting with the program director and clinical advisor.  
b) Twice yearly multisource evaluations by multiple members of the interdisciplinary team and patients/families.  
c) Direct observation

**Assessment methods (Program evaluation)**  

a) Fellows complete a yearly, anonymous, confidential evaluation of the rotation  
b) Monthly faculty meetings review the progress of each fellow and the program in general  
c) Yearly meeting for the faculty and fellows to review the program in general

**Level of supervision**  

a) The fellow on this rotation works under the supervision of a clinical faculty member at all times  
b) During night call there is a clinical faculty member available at all times to discuss calls and patient issues

**Reading List**  

2) Orkin: *Oncology of Infancy and Childhood* (2009)  
4) Champlin and Ippoliti: *Supportive Care Manual For Blood And Marrow Transplantation* (2007)
OVERALL DESCRIPTION

- Fellows see patients for one week in the outpatient radiation oncology clinic at Banner Good Samaritan Regional Medical Center. This experience enables the fellows to gain an appreciation of the workup and planning process for therapeutic radiation treatments and also enables them to gain a sense of radiation therapy toxicities, modalities, and limitations as oncologic treatment regimens.

GOALS AND OBJECTIVES

a. Patient Care

Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

- Through supervised clinical experiences, fellows will develop their skills in initial assessment, diagnostic workup, and management of the patient undergoing radiation therapy.
- Fellows will become familiar with the specialized aspects of the radiation oncology service and will learn how to function as a vital member of an interdisciplinary team.
- Fellows will learn how to counsel a new patient referred for radiation treatment and his/her family with confidence and compassion.

b. Medical Knowledge

Fellows must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.
(Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

- Fellows are required to demonstrate knowledge in the clinical aspects of radiation oncology with respect to its use in treating abnormalities in childhood. Knowledge is acquired through clinical care and related experiences and as well as didactic lectures. Fellows are expected to participate in didactic lectures. Fellows are expected gain sufficient knowledge and experience to sit for and successfully pass the Board Exam in Pediatric Hematology/Oncology. Topics include (but are not limited to):

1. Effects of hypoxia on tumor and normal tissue sensitivity to radiation
2. Advantages of and indications for using brachytherapy
3. Effects of radiation on cells in different phases
4. Variables that influence the response to therapeutic radiation
5. Principles underlying the use of fractionated radiation therapy
6. Tumor characteristics that make it amenable to treatment with stereotactic radiosurgery ("gamma knife")
7. Difference between conformal and conventional radiotherapy
8. Principles of treatment planning and preparation of a patient for radiation treatments
9. Use of radiation therapy within the context of oncology treatment protocols
10. Chemotherapy agents as radiation sensitizers
11. Emergency and palliative use of radiation therapy
12. Short-term and long-term effects of varying doses and types of radiation on
normal tissues
13. Clinical, laboratory, and radiologic findings of radiation pneumonitis
14. Bone marrow toxicity of radiation therapy
15. Know the effects of varying doses of radiation on normal lungs
16. Risks of second malignant neoplasms according to radiation dosage, specific
tumors, and combined therapy
17. Frequency of tumor types seen as second malignancies after radiation therapy
(Source: Program Requirements for Fellowship Education in Pediatric Hematology/Oncology (V.B.), ACGME, 7/1/07)

Other structured educational experiences included didactic, case-based, and practical
training in the following topics:

1. Health care practice management and the business of radiation oncology
2. Clinical outcomes in radiation oncology
3. Prevention of medical errors
4. Demonstrating skill in communication and counseling
5. Provision of comprehensive care within a multidisciplinary treatment team
6. Proper use of laboratory and imaging techniques for diagnosis, with recognition of
   the limitations of the various methods and the pitfalls in interpretation of laboratory
   and imaging results

   c. Practice-Based Learning and Improvement

   Fellows must demonstrate the ability to investigate and evaluate their care of patients, to
   appraise and assimilate scientific evidence, and to continuously improve patient care
   based on constant self-evaluation and life-long learning.
   (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

   • Fellows will develop their approach to the initial management of patients who require
     radiation therapy by referencing evidence-based practices from the literature. Fellows
     will also learn to apply proven analytical and statistical methods when forming
     clinical correlations to these results.
   • Fellows will make appropriate use of evidence-based techniques in available
     information technology.
   • Fellows will learn cost-effective and evidence-based use of imaging techniques and
     use of other members of the interdisciplinary radiation oncology team, such as
     radiation technologists, nursing staff, dosimetrists, and physicists.
   • Fellows are expected to be active and willing participants in the methods of self-
     critique, with the aid of faculty. Fellows are expected to reflect on their performance
     as necessary.

   d. Interpersonal and Communication Skills

   Fellows must demonstrate interpersonal and communication skills that result in the
effective exchange of information and collaboration with patients, their families, and
health professionals.
   (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

   • Fellows are expected to learn proper and efficient verbal and written communication
     skills when interpreting and communicating laboratory and imaging results to
     patients, families, and other health care providers.
   • Fellows are expected to observe and participate in new patient diagnosis and
     treatment conferences.
   • Fellows are expected to gain proficiency in the following:
1. Establish a therapeutic relationship with patients and families
2. Demonstrate a willingness to listen to nursing and allied staff
3. Explain information to patients and families using clear, understandable terms
4. Write orders that are clear and legible
5. Maintain comprehensive, timely, and legible medical records
6. Consistently participate cooperatively in interdisciplinary rounds
7. Communicate effectively with other physicians
8. Deliver clear, concise, and organized patient presentations during interdisciplinary meetings and the general oncology tumor board
9. Complete consultations in a timely manner and communicates recommendations clearly and concisely with the consulting medical team

c. **Professionalism**

   Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

   (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

   - Fellows are expected to improve their performance in the following areas:

     1. Consistently attend to details of patient comfort and delivery of care
     2. Accept inconvenience when necessary to meet the needs of the patient
     3. Consistently respect patient privacy when conducting examinations
     4. Provide care sensitive to patient’s age, gender, disabilities, cultural/ethnic diversity, and sexual orientation
     5. Consistently be courteous and receptive to nursing and allied health staff
     6. Demonstrate consistent and excellent work ethic
     7. Consistently respond in a timely manner when paged or called
     8. Consistently follow through on cross-cover issues
     9. Demonstrate dependability/commitment (patient follow-up, continuity of care)
    10. Maintain composure during stressful/crisis situations
    11. Demonstrate honesty/integrity
    12. Demonstrate high standards of ethical and moral behavior and accountability
    13. Demonstrate commitment to teaching at all learner levels
    14. Accept responsibility for errors in medical judgment and learn from one’s mistakes

   - Fellows are expected to self-critique and reflect upon their evaluations by faculty, patients and their families, ancillary staff, and secretarial staff and to continue to strive to become not only a competent clinician, but also an impassioned caregiver.

f. **Systems-Based Practice**

   Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

   (Source: ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics, ACGME, 7/1/07)

   - Fellows are expected to learn how to develop an efficient and cost-effective approach for the initial diagnosis and subsequent management of patients requiring radiation therapy.
• Fellows are expected to learn proper aspects of medical coding and billing with respect to patient care.
• Fellows are expected to learn the function of ancillary staff that are available to facilitate health care delivery.
• Fellows are expected to learn how to ensure efficient health care delivery by using other key personnel in the health care delivery system to best take care of their patients.
• Fellows are expected to participate in and learn how the process of performance improvement operates within the context of radiation oncology.

**Teaching methods**

- a) Outpatient clinical exposure with preception by radiation oncology faculty
- b) Inpatient consultations with preception by radiation oncology faculty
- c) Continuous interaction with clinical faculty in all decisions made for all patients, both inpatient and outpatient
- d) Didactics as arranged with the radiation oncology faculty
- e) Weekly non-CNS tumor board
- f) Weekly CNS tumor board
- g) Shadowing and hands-on experience with different aspects of the therapeutic radiation delivery process, including dose planning, construction of blocks, and simulation
- h) Didactics as arranged with the radiation oncology faculty

**Assessment methods (fellows)**

- a) Global assessments are completed by faculty at the end of the rotation. These assessments are shared with the fellow by written and verbal communication and reviewed with the fellow during a semiannual meeting with the program director and clinical advisor.
- b) Twice yearly multisource evaluations by multiple members of the interdisciplinary team and patients/families.
- c) Direct observation

**Assessment methods (Program evaluation)**

- a) Fellows complete a yearly, anonymous, confidential evaluation of the rotation
- b) Monthly faculty meetings review the progress of each fellow and the program in general
- c) Yearly meeting for the faculty and fellows to review the program in general

**Level of supervision**

- a) The fellow on this rotation works under the supervision of a clinical faculty member at all times
- b) During night call there is a clinical faculty member available at all times to discuss calls and patient issues

**Reading List**

Goals and Objectives  
PCH Fellowship Programs  
Scholarly Activities Curriculum

**Goals:**

The purpose of this curriculum is to enable pediatric fellows to understand and be able to apply the principles of the use of biostatistics in research as well as the principles of epidemiology and clinical research design, apply research to clinical practice, be familiar with and employ principles of teaching and learning and be familiar with ethics in research.

**Objectives:**

(Each objective will be followed by the core competency (or competencies) it addresses: Medical Knowledge (MK); Interpersonal and Communication Skills (ICS); Patient care (PC); Professionalism (PR); Problem-based Learning (PBL); Systems-based Practice (SBP))

A. Principles of Use of Biostatistics in Research

1. Types of variables (MK)
   - Distinguish types of variables (e.g., continuous, categorical, ordinal, nominal)
   - Understand how the type of variable (e.g., continuous, categorical, nominal) affects the choice of statistical test

2. Distribution of data (MK)
   - Understand how distribution of data affects the choice of statistical test
   - Differentiate normal from skewed distribution of data
   - Understand the appropriate use of the mean, median, and mode
   - Understand the appropriate use of standard deviation
   - Understand the appropriate use of standard error

3. Hypothesis testing (MK)
   - Distinguish the null hypothesis from an alternative hypothesis
   - Interpret the results of hypothesis testing

4. Statistical tests (MK)
   - Understand the appropriate use of the chi-square test versus a t-test
• Understand the appropriate use of analysis of variance (ANOVA)

• Understand the appropriate use of parametric (e.g., t-test, ANOVA) versus non-parametric (e.g., Mann-Whitney U, Wilcoxon) statistical tests

• Interpret the results of chi-square tests

• Interpret the results of t-tests

• Understand the appropriate use of a paired and non-paired t-test

• Determine the appropriate use of a 1- versus 2-tailed test of significance

• Interpret a p-value

• Interpret a p-value when multiple comparisons have been made

• Interpret a confidence interval

• Identify a type I error

• Identify a type II error

5. Measurement of association (MK, PC)

• Differentiate relative risk reduction from absolute risk reduction

• Calculate and interpret a relative risk

• Calculate and interpret an odds ratio

• Interpret a hazard ratio

• Understand the uses and limitations of a correlation coefficient

6. Regression (MK)

• Identify when to apply regression analysis (e.g., linear, logistic)

• Interpret a regression analysis (e.g., linear, logistic)

• Identify when to apply survival analysis (e.g., Kaplan-Meier)

• Interpret a survival analysis (e.g., Kaplan-Meier) (PC)

7. Diagnostic tests

• Recognize the importance of an independent “gold standard” in evaluating a diagnostic
test (MK)

- Calculate and interpret sensitivity and specificity (PC)
- Calculate and interpret positive and negative predictive values (PC)
- Understand how disease prevalence affects the positive and negative predictive value of a test (MK)
- Calculate and interpret likelihood ratios (PC)
- Interpret a receiver operator characteristic curve (PC)
- Interpret and apply a clinical prediction rule (PC)

8. Systematic reviews and meta-analysis (PBL)

- Understand the purpose of a systematic review
- Understand the advantages of adding a meta-analysis to a systematic review
- Interpret the results of a meta-analysis (PC)
- Identify the limitations of a systematic review
- Identify the limitations of a meta-analysis

B. Principles of Epidemiology and Clinical Research Design

1. Study types

- Distinguish between Phase I, II, III, and IV clinical trials (MK)
- Recognize a retrospective study (MK)
- Understand the strengths and limitations of retrospective studies (PC)
- Recognize a case series (MK)
- Understand the strengths and limitations of case series (PC)
- Recognize a cross-sectional study (MK)
- Understand the strengths and limitations of cross-sectional studies (PC)
- Recognize a case-control study (MK)
- Understand the strengths and limitations of case-control studies (PC)
• Recognize a longitudinal study (MK)
• Understand the strengths and limitations of longitudinal studies (PC)
• Recognize a cohort study (MK)
• Understand the strengths and limitations of cohort studies (PC)
• Recognize a randomized-controlled study (MK)
• Understand the strengths and limitations of Randomized-controlled studies (PC)
• Recognize a before-after study (MK)
• Understand the strengths and limitations of a before-after study (MK)
• Recognize a crossover study (MK)
• Understand the strengths and limitations of crossover studies (PC)
• Recognize an open-label study (MK)
• Understand the strengths and limitations of open-label studies (PC)
• Recognize a post-hoc analysis (MK)
• Understand the strengths and limitations of post-hoc analyses (PC)
• Recognize a subgroup analysis (MK)
• Understand the strengths and limitations of subgroup analyses (PC)

2. Bias and Confounding (MK)

• Understand how bias affects the validity of results
• Understand how confounding affects the validity of results
• Identify common strategies in study design to avoid or reduce bias
• Identify common strategies in study design to avoid or reduce confounding
• Understand how study results may differ between distinct sub-populations (effect modification) (PC)

3. Causation (MK)
• Understand the difference between association and causation

• Identify factors that strengthen causal inference in observational studies (e.g., temporal sequence, dose response, repetition in a different population, consistency with other studies, biologic plausibility)

4. Incidence and Prevalence (MK)

• Distinguish disease incidence from disease prevalence

5. Screening (MK)

• Understand factors that affect the rationale for screening for a condition or disease (e.g., prevalence, test accuracy, risk-benefit, disease burden, presence of a presymptomatic state)

6. Decision analysis

• Understand the strengths and limitations of decision analyses (MK)

• Interpret a decision analysis (PC)

7. Cost-benefit, cost-effectiveness, and outcomes (SBP)

• Differentiate cost-benefit from cost-effectiveness analysis

• Understand how quality-adjusted life years are used in cost analyses

• Understand the multiple perspectives (e.g., of an individual, payor, society) that influence interpretation of cost-benefit and cost-effectiveness analyses

8. Sensitivity analysis (MK)

• Understand the strengths and limitations of sensitivity analysis

• Interpret the results of sensitivity analysis

9. Measurement (MK)

• Understand the types of validity that relate to measurement (e.g., face, construct, criterion, predictive, content)

• Distinguish validity from reliability

• Distinguish internal from external validity

• Distinguish accuracy from precision
- Understand and interpret measurements of interobserver reliability (e.g., kappa)
- Understand and interpret Cronbach’s alpha

C. Applying Research to Clinical Practice (MK)

1. Assessment of study design, performance, and analysis (internal validity)
   - Recognize when appropriate control groups have been selected for a case-control study
   - Recognize when appropriate control groups have been selected for a cohort study
   - Recognize the use and limitations of surrogate endpoints
   - Understand the use of intent-to-treat analysis
   - Understand how sample size affects the power of a study
   - Understand how sample size may limit the ability to detect adverse events
   - Understand how to calculate an adequate sample size for a controlled trial (i.e., clinically meaningful difference, variability in measurement, choice of alpha and beta)

2. Assessment of generalizability (external validity) (PC)
   - Identify factors that contribute to or jeopardize generalizability
   - Understand how non-representative samples can bias results
   - Assess how the data source (e.g., diaries, billing data, discharge diagnostic code) may affect study results

3. Application of information for patient care (PC)
   - Estimate the post-test probability of a disease, given the pretest probability of the disease and the likelihood ratio for the test
   - Calculate absolute risk reduction
   - Calculate and interpret the number-needed-to treat
   - Distinguish statistical significance from clinical importance

4. Using the medical literature (PBL)
   - Given the need for specific clinical information, identify a clear, structured, searchable clinical question
• Identify the study design most likely to yield valid information about the accuracy of a diagnostic test

• Identify the study design most likely to yield valid information about the benefits and/or harms of an intervention

• Identify the study design most likely to yield valid information about the prognosis of a condition

D. Principles of Teaching and Learning

1. Educational theory

• Understand the basic principles of adult learning theory (e.g., adult learners are self-directed, goal-oriented, practical; need to feel respected, build on life experiences; learn best when learning is based on an existing framework) (MK)

• Understand the attributes of an effective learning environment (PBL)

• Understand the importance of “reflective practice” in teaching and learning (PBL)

• Identify strategies that motivate learners (PBL)

• Recognize the impact of the “hidden curriculum” on learning (PBL)

2. Feedback and Evaluation (PBL)

• Identify components of effective feedback

• Distinguish between formative and summative feedback

• Distinguish between evaluation and feedback

• Understand the strengths and weaknesses of various methods to evaluate learners

3. Teaching Methods (MK)

• Understand the strengths and weaknesses of various teaching methods (e.g., lecture, small group discussion, bedside teaching, simulation)

• Understand that individuals may learn more effectively with certain teaching methods (e.g., reading, hearing, doing) than with others

4. Educational Planning (PBL)

• Understand the role of needs assessment in educational planning

• Distinguish between goals and learning objectives
• Identify components of well-formulated learning objectives

• Recognize the strengths and weaknesses of various educational outcome measures (e.g., participant satisfaction, acquisition of knowledge and skills, behavioral change, patient outcomes)

• Recognize the strengths and weaknesses knowledge and skills, behavioral change, patient outcomes)

E. Ethics in Research

1. Conflicts of Interest and Commitment (PRO)
   • Evaluate whether an investigator has a conflict of interest during the course of a study
   • Understand ways to manage a conflict of interest
   • Understand what constitutes a conflict of commitment

2. Professionalism and Misconduct in Research (PRO)
   • Identify forms of research misconduct (e.g., plagiarism, fabrication, falsification)
   • Identify forms of research misconduct
   • Differentiate honest error and differences of opinion from research misconduct
   • Understand the criteria for authorship of clinical research publications

3. Principles of Research with Human Subjects (MK, PRO)
   • Understand and apply the three main principles of research ethics articulated in the Belmont Report (i.e., respect for persons, beneficence, and justice)
   • Understand the role of analysis of risks and benefits in the ethical conduct of research
   • Understand the federal regulatory definitions regarding which activities are considered research
   • Understand the federal regulatory definitions regarding when research includes the use of human subjects
   • Understand the functions of an Institutional Review Board
   • Understand when an exemption from review by the Institutional Review Board is
• Understand the functions of a Data Safety Monitoring Board

• Understand the importance of clinical equipoise in research with human subjects

• Understand the impact of “therapeutic fallacy” on clinical research with human subjects

• Understand the ethical considerations of study design (e.g., placebo, harm of intervention, deception, flawed design)

4. Principles of Consent and Assent (MK, IPC)

• Understand what constitutes informed consent in research

• Understand how undue influence can affect obtaining consent for research

• Understand how coercion can affect obtaining consent for research

• Understand the special ethical considerations related to research utilizing children because of their inability to give informed consent

• Distinguish among consent, assent, and permission in research involving children

5. Vulnerable Population (MK)

• Recognize that the definition of “children” is related to the underlying clinical intervention in the jurisdiction in which the child is located rather than a fixed nationwide notion of age

• Recognize the types of protections that might be accorded to vulnerable populations (e.g., incarcerated individuals, pregnant women, fetuses, children, mentally disabled individuals, educationally or economically disadvantaged individuals)

• Understand the concept of minimal risk as it applies to research involving children

• Understand the circumstances under which research that involve children and that entails greater than minimal risk may be permissible

Reading List
CITI Course curriculum (completed during fellowship orientation)
Investigator 101 curriculum (completed during fellowship orientation)
OVERALL DESCRIPTION

- During years 2 and 3 the fellow has ~ 80% protected time for research. Each fellow is accountable to the scholarship oversight committee for this and along with their research mentor and program director they will provide guidance for the fellow in their progress through a research project. The timeline for progress will vary depending on types of projects and areas of research chosen but the fellow will prepare a written individualized research plan and present this to their SOC twice per year outlining their progress and plans. It is the responsibility of the SOC and director to remind each fellow that the expected progress of Project development → Project approval → Data Generation → Data analysis and presentation → Manuscript and Grant submission should remain a clear objective. Each fellow will be expected to do the following:

Clinical projects:
1. Fellows will participate in the Phoenix Children's Hospital Scholarly Activities Curriculum
2. Fellows will write a formal research proposal for submission to the appropriate institutional approval committees
   a) Institutional Review Board
   b) Scientific Review Board
3. Fellows will submit data as it matures for presentation at regional and national meetings
4. Fellows will submit grants for project funding to institutional, regional and national funding organizations as appropriate
5. Fellows will submit for peer-reviewed publication project data as it matures

Laboratory projects:
1. Fellows will participate in the Phoenix Children's Hospital Scholarly Activities Curriculum
2. Fellows will write a formal research proposal for submission to the appropriate institutional approval committees
   a) Institutional Review Board
   b) Scientific Review Board
3. Fellows will submit data as it matures for presentation at regional and national meetings
4. Fellows will submit grants for project funding to institutional, regional and national funding organizations as appropriate
5. Fellows will submit for peer-reviewed publication project data as it matures

Fellows intent on staying a fourth year in fellowship will submit salary-supporting grants during their third fellowship year that would provide funds beginning some time in their fourth year. There are several faculty members in the Center for Cancer and Blood Disorders who are engaged in active research projects, both clinical and translational. There are several active collaborations with research faculty at the Translational Genomics Research Institute (TGEN) in Phoenix, although there also are research opportunities at the University of Arizona, at the Arizona State University, or at another facility of the fellow’s choosing. PCH and TGEN have initiated a research training program for the fellows, and it is outlined as follows:
Purpose and Structure of the Training Program at TGEN

- TGEN is a not-for-profit research institute whose mission is to make and rapidly translate genomic discoveries into advances for human health. TGEN leverages unique genomic research platforms to translate genetic information of diseases into new diagnostic tests and innovative therapies to battle cancer and other diseases and disorders.
- TGEN is a major partner of Phoenix Children’s Hospital. TGEN helps to supportive collaborative research, chemotherapeutic drug development, and biorepository efforts between the two institutions. TGEN also participates in the mentorship of fellows from other fellowship training programs in the Phoenix metropolitan area.
- The purpose of this training program is to combine the clinical experience provided by the Center for Cancer and Blood Disorders Phoenix Children’s Hospital and the diverse laboratory research experiences available at the Translational Genomics Research Institute (TGEN) to produce highly-trained clinician investigators in the discipline of pediatric hematology-oncology. The novel technologies and the unique resources available at TGEN provide an opportunity for fellows to receive training in laboratory-based translational studies.
- Two years of the Training Program is spent actively pursuing laboratory-based research. Tailored research projects are developed by the fellow under the guidance of, and in cooperation with, faculty members of TGEN; one of the faculty members will be the primary research mentor.
- Upon completion of the Laboratory Research portion of the program, fellows are expected to have:
  1. Developed relevant and innovative scientific hypotheses focused on a cancer problem
  2. Become knowledgeable about funding entities dedicated to financial support to test these hypotheses
  3. Developed and demonstrated competency in performing state-of-the-art laboratory research on some aspect of the cancer problem
  4. Published and/or submitted to peer-reviewed journals manuscripts communicating their research findings
  5. Completed and submitted a research grant application

- **Core Requirements**
  The core requirements of this training program are described below.

<table>
<thead>
<tr>
<th>Goal</th>
<th>Specialized Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Project</td>
<td>Research project to be conducted with the mentor and the Scholarship Oversight Committee</td>
</tr>
<tr>
<td>Specialized Training</td>
<td>• Bench Research Techniques (genomic, molecular and cell biology, and bioinformatics)</td>
</tr>
<tr>
<td></td>
<td>• Research Design</td>
</tr>
<tr>
<td></td>
<td>• Presentation Skills</td>
</tr>
<tr>
<td></td>
<td>• Manuscript Preparation</td>
</tr>
<tr>
<td></td>
<td>• Grant Preparation</td>
</tr>
<tr>
<td>Core Coursework</td>
<td>• Proposal Preparation Seminars</td>
</tr>
<tr>
<td></td>
<td>• Responsible Conduct of Research/CITI</td>
</tr>
<tr>
<td>Other Experiences</td>
<td>• Seminars</td>
</tr>
<tr>
<td></td>
<td>• Retreats</td>
</tr>
<tr>
<td></td>
<td>• Laboratory Rotations</td>
</tr>
</tbody>
</table>
1. **Bench Research Techniques**: Fellows work along with research technicians, postdoctoral fellows, and graduate students to obtain experience in scientific techniques and experimental design. Fellows learn a variety of research techniques that enable him/her to pursue a specific research project.

2. **Bioinformatics**: Fellows receive rudimentary training to develop and apply pattern recognition, data mining, text mining, and data visualization techniques to research problems. A trainee is expected to undergo several hours of training prior to any practical analysis on real data. The biological relevance and statistical interpretation of technologies such as gene expression, SNP, and CGH arrays is explained in qualitative and quantitative ways.

3. **Research Design**: Fellows receive an introduction to the main issues involved in the design of a research project. They learn how to make decisions about how the research should be conducted, how the data should be collected and analyzed, and how conclusions should be drawn for the aims of the research to be realized.

4. **Presentation Skills**: Each fellow is required to present his/her research at Phoenix Children’s Hospital Research Seminar series and at TGEN’s Translational Genomics Seminars. Fellows receive feedback following the presentation from all faculty mentors. These discussions serve to facilitate and increase the fellow’s interactions with the multidisciplinary faculty team and further enhance the mentoring received by the fellow. Fellows are expected to give regular presentations at the laboratory meetings of the Division in which they are conducting research. Fellows are coached by the mentors on presentation skills, and abstract and poster presentation. It is expected that fellows submit an abstract on his/her work to a national annual scientific meeting.

5. **Manuscript Preparation**: Fellows are required to write a manuscript related to the research project for publication in a peer-reviewed journal and to respond to reviewers’ comments. Both research and clinical mentors guide the fellows through this section of their training.

6. **Grant Preparation**: The research mentor works with the fellow in the development of an application for peer-reviewed funding for continued research. The draft proposal undergoes a review by the mentors and the Scholarship Oversight Committee to facilitate the fellow’s development of a strong application prior to submission. If the fellow wishes to spend an extra year pursuing his/her research project, there are funding opportunities and guidance available at both TGEN and PCH.

7. **Proposal Preparation Workshops**: Each fellow is required to attend the web-based research administration workshops and seminars offered through Arizona State University (http://researchadmin.asu.edu/training/fac_course.cfm). All fellows are expected to attend these workshops during their second year and, as a result, to complete a mock or actual grant application. This workshop provides fellows with the following skills: 1) identification of appropriate funding sources for research; 2) preparing, writing and submitting proposals proactively; and 3) managing, monitoring, and closing out the research project.

8. **Responsible Conduct of Research and Human Subjects Training**: The goal of the training is to introduce the fellows to the concepts of responsible conduct of research. Fellows are trained in scientific and policy contexts in which they must work. Fellows are required to complete the CITI Course in the Protection of Human Research Subjects.

9. **Seminars**: In addition to the seminars at Phoenix Children’s Hospital and TGEN, fellows may attend other seminar series at TGEN, the University of Arizona, and Arizona State University. There are many other seminars that may supplement the training in the fellow’s area of interest. The research mentor works with the fellow to determine which, if any, of these seminars would be appropriate.

10. **Retreats**: TGEN holds annual scientific retreats for its scientific staff. Fellows are expected to submit abstracts and prepare posters for this retreat. If chosen, they also give oral presentations.
11. **Laboratory Rotations**: In the first year, laboratory rotations of two weeks duration orient fellows to genomics technologies to facilitate the development of the research project. In meetings with the research mentor, technical and analytical gaps in the fellow’s background are addressed and remedied.

12. **Mentoring Process**

   Faculty research mentors will be assigned based on the research interests of the fellow:

### Faculty Mentoring Process

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identification of Mentor</strong></td>
<td>In the second half of the first year of training, the hematology/oncology fellows have two weeks of protected non-clinical time to meet with prospective research mentors and to begin to identify a project that can be completed in a two-year period. The mentor is assigned according to research interests and availability. A Scholarship Oversight Committee is formed during the first year in conjunction with the research mentor.</td>
</tr>
<tr>
<td><strong>Development of the Research Proposal</strong></td>
<td>Once the primary mentor has been selected, the mentor and trainee develop a research proposal and training plan. Within three months, the plan must be approved by the Scholarship Oversight Committee.</td>
</tr>
<tr>
<td><strong>Bi-Weekly Meetings to Assess Progress</strong></td>
<td>The fellow and the mentor schedule regular weekly meetings to review the trainee’s progress toward the research goals. Any secondary mentors are selected at this time. All mentors must be able and willing to set aside time for consultation apart from regularly scheduled progress meetings.</td>
</tr>
<tr>
<td><strong>Semi-Annual Reports to Scholarship Oversight Committee</strong></td>
<td>The fellow is responsible for semi-annual reports to the Scholarship Oversight Committee and mentor. These reports contain a summary of the research project, a timeline for completion, the accomplishments toward the defined goals, the goals planned for the next six months, all publications and/or grant submissions, times and dates of all meetings with the mentors, and issues or problems that arose during the period as well as plans for problem resolution.</td>
</tr>
<tr>
<td><strong>Identification of Resources</strong></td>
<td>The mentor assists in identifying area resources; in building linkages with community agencies and collaborating entities; in developing and adhering to timelines; and in obtaining human or animal subjects and institutional review board and scientific review committee approvals.</td>
</tr>
<tr>
<td><strong>Seminar</strong></td>
<td>The mentor assists in the preparation and rehearses his/her twice-yearly presentation with the fellow as part of the monthly research seminar series. The mentor attends and participates in the Scholarship Oversight Committee’s review of this presentation.</td>
</tr>
<tr>
<td><strong>Grant Proposal</strong></td>
<td>The mentor works with the fellow in the development of an application for peer-review funding for continued research. The draft proposal will undergo a mock review by the mentors and Scholarship Oversight Committee to facilitate the fellow’s development of a strong application prior to submission.</td>
</tr>
</tbody>
</table>

- A Scholarship Oversight Committee is formed in conjunction with the research mentor during the first year. In addition to the Program Director and faculty mentor, the Committee consists of program clinical and research staff in areas relevant to the fellow’s research project. The Committee approves the training plan for the fellow, monitors and evaluates the fellow’s progress, and makes recommendations for any changes. The Committee also ensures that the weekly meetings with the research mentor are taking place and provides a final evaluation of the fellows. Fellows receive a semi-annual mentoring review provided by the Scholarship Oversight Committee in response to the materials submitted by the fellows.

- Research and clinical mentors collaborate to provide fellows with the necessary
guidance for successful completion of training. One faculty member serves as the fellow’s primary mentor and direct supervisor. The mentor is expected to meet with their fellows at least weekly. It is critical that the fellows promptly develop productive relationships with their mentors. Changing mentors or research topics requires the review and approval of the program’s Committee. The Scholarship Oversight Committee reviews the meeting frequency of fellows with his/her mentors on a semi-annual basis.

GOALS AND OBJECTIVES

1. **Goal - Patient Care** that is compassionate, appropriate, and effective for the treatment of health programs and the promotion of health.

   Year 1
   - Appreciates the purpose of translational research as it applies to developments in hematology and oncology care
   - Ensures that patient care is not disrupted by the administration of research protocols

   Year 2 – all goals of Year 1, plus:
   - Accurately describes research goals to families and patients

   Year 3 – all goals of Year 2, plus:
   - Leads conference with patients and families during which research question is discussed, consent and assent for clinical or laboratory research is obtained, and conference is documented accurately in the medical record

2. **GOAL: Medical Knowledge.** Understand the scope of established and evolving biomedical, clinical, epidemiological and social-behavior knowledge needed by a pediatric hematologist-oncologist; demonstrate the ability to acquire, critically interpret and apply this knowledge in research.

   Year 1
   - Identifies appropriate research question of interest
   - Reads to acquire new information
   - Demonstrates commitment to scholarship by attendance and participation in didactics/conferences

   Year 2 – all goals of Year 1, plus:
   - Demonstrates ability to form relevant hypothesis(es)
   - Demonstrates ability to design feasible experiments relevant to research question
   - Demonstrates knowledge of relevant statistical methodologies
   - Demonstrates ability to execute research plan
   - Recognizes deficiencies of plan
   - Communicates appropriate basic science knowledge

   Year 3 – all goals of Year 2, plus:
   - Demonstrates ability to overcome obstacles to execution of research plan
   - Demonstrates ability to critically evaluate strengths and weaknesses of data obtained
3. Interpersonal and Communication Skills: Demonstrate interpersonal and communications skills that result in information exchange and partnering with patients, their families and professional associates.

Year 1
Demonstrates effective communication with physicians, health professionals, and researchers
Presents research plans effectively to colleagues in departmental and divisional research meetings

Year 2 – all goals of Year 1, plus:
Forms relationships with colleagues to facilitate progress
Develops good collaboration skills with researchers, both on- and off-campus
Presents research plans effectively to colleagues in scholarship oversight committee meetings
Maintains comprehensive, timely, and legible laboratory records

Year 3 – all goals of Year 2, plus:
Prepares abstract for submission to regional or national meeting
Prepares poster or platform presentation for regional or national meeting
Prepares manuscript for publication in peer-reviewed literature

4. Practice Based Learning and Improvement: Demonstrate knowledge, skills and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate, and improve one’s patient care practice.

Year 1
Identifies strengths, deficiencies and limits in one’s own knowledge and expertise
Sets learning and improvement goals
Locates, appraises, and assimilates evidence from scientific studies related to research
Learns how to use available technology to perform literature searches to aid in the greater understanding of the research process and the generation of hypotheses
Understands fundamental elements of hypothesis-driven research

Year 2 – all goals of Year 1, plus:
Prepares and presents an individualized research and learning plan to the scholarship oversight committee twice yearly
Hones ability to accept constructive criticism gracefully and applies suggestions to improve research method and outcome
Demonstrates ability to critically evaluate published literature
Demonstrates active learning and improvement in new laboratory technique
Demonstrates active and interested inquiry when exposed to new topics

Year 3 – all goals of Year 2, plus:
Prepares a final manuscript for publication in a peer-reviewed journal and seeks criticism of final product
5. Professionalism: Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to diversity

**Year 1**
- Demonstrates compassion, integrity and respect for others in the research environment
- Consistently respects patient privacy with respect to data collection
- Demonstrates consistent and excellent work ethic
- Consistently upholds HIPAA and CITI standards for responsible research practices
- Maintains composure during stressful/crisis situations

**Year 2** – all goals of Year 1, plus:
- Consistently maintains respect, compassion, integrity, honesty and responsiveness to the needs of the research team and colleagues
- Accepts inconvenience when necessary to complete critical sections of project
- Maintains honest data collection and experimental technique
- Consistently assists in general laboratory housekeeping, maintenance, and cleanup chores

**Year 3** – all goals of Year 2, plus:
- Demonstrates a commitment to excellence and ongoing professional development by being prepared, on-time, in appropriate attire and contributing in teaching conferences and didactic lectures

6. Systems Based Practice: Understand how to practice high quality health care and advocate for patients within the context of the health care system

**Year 1**
- Collaborates well with others, both inside and outside the primary research institution

**Year 2** – all goals of Year 1, plus:
- Incorporates cost-awareness into laboratory practice
- Consistently contributes to the research team
- Shares knowledge with others
- Asks for advice when appropriate from more experienced laboratory staff

**Year 3** – all goals of Year 2, plus:
- Teaches students, staff, and more junior colleagues on the research team regularly and effectively

**Teaching methods**
- a) TGEN research training curriculum
- b) Hands-on experience with research technicians, faculty, and other researchers in the laboratory

**Assessment methods (fellows)**
a) Global assessments are completed by research faculty semiannually. These assessments are shared with the fellow by written and verbal communication and reviewed with the fellow during a semiannual meeting with the program director and clinical advisor.
b) Twice yearly multisource evaluations by multiple members of the interdisciplinary team and patients/families.
c) Direct observation
d) Oral presentations of the fellow’s progress to date during departmental meetings, research meetings, and presentations in abstract/poster/oral form at national and international meetings
e) Publication of a completed manuscript in a peer-reviewed journal
f) Review of a major peer-reviewed extra-curricular grant application

Assessment methods (Program evaluation)
  a) Fellows complete a yearly, anonymous, confidential evaluation of the research experience
  b) Monthly faculty meetings review the progress of each fellow and the program in general
  c) Yearly meeting for the faculty and fellows to review the program in general

Level of supervision
  a) The fellow on this rotation works under the supervision of a research faculty member at all times

Reading List:
Recommended by individual research mentor (project-specific)
# Phoenix Children’s Hospital
Hematology/Oncology Fellowship Program

## Policies - Table of Contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Program Evaluation and Improvement</td>
<td>1</td>
</tr>
<tr>
<td>Annual Program Review</td>
<td>2</td>
</tr>
<tr>
<td>Well-Being and Physician Impairment</td>
<td>3</td>
</tr>
<tr>
<td>Moonlighting</td>
<td>6</td>
</tr>
<tr>
<td>Grievance Procedure and Due Process</td>
<td>9</td>
</tr>
<tr>
<td>Supervision</td>
<td>11</td>
</tr>
<tr>
<td>Paid Time Off</td>
<td>12</td>
</tr>
<tr>
<td>Promotion</td>
<td>13</td>
</tr>
<tr>
<td>Non-Promotion or Termination</td>
<td>14</td>
</tr>
<tr>
<td>Leave</td>
<td>15</td>
</tr>
<tr>
<td>Evaluation</td>
<td>16</td>
</tr>
<tr>
<td>Discipline</td>
<td>17</td>
</tr>
<tr>
<td>Duty Hour</td>
<td>19</td>
</tr>
<tr>
<td>Appearance and Dress Code</td>
<td>21</td>
</tr>
<tr>
<td>Conference Attendance</td>
<td>22</td>
</tr>
<tr>
<td>Sick Call</td>
<td>23</td>
</tr>
<tr>
<td>Scholarship Oversight Committee</td>
<td>24</td>
</tr>
</tbody>
</table>
To meet ACMGE requirements, fellowship programs must conduct Annual Review and present this report at GMEC:

1. Annual Review must document formal, systematic evaluation of the curriculum at least annually. The program must monitor and track each of the following areas:

   a) resident performance;

   b) faculty development;

   c) graduate performance, including performance of program graduates on the certification examination; and,

   d) program quality. Specifically:

      i. Residents and faculty must have the opportunity to evaluate the program confidentially and in writing at least annually, and

      ii. The program must use the results of residents’ assessments of the program together with other program evaluation results to improve the program.

2. If deficiencies are found, the program should prepare a written plan of action to document initiative to improve performance in the Annual Program Evaluation. The action plan should be reviewed and approved by the teaching faculty and documented in the GMEC meeting minutes.

Grace L. Caputo, MD, MPH
Chairman, Graduate Medical Education Committee
Director, Graduate Medical Education
Designated Institutional Official
Phoenix Children’s Hospital

Last approved by Program Directors: June 2010
Last approved by GMEC:
I. Summary of Fellows’ Review of Program: (identify strengths, areas for improvement and concerns).

II. Summary of Faculty Review of Program

III. Fellows Performance
   a. In-training scores
   b. Summary of SOC reports

IV. Faculty Development: (describe conferences given, list dates of sessions)

V. Graduate Performance: (include performance of graduates on certification exams and list publications)

VI. Action Plan and Timeline

Reviewed by Fellows on: ___________________________ Date

Reviewed and approved by Faculty: ___________________________ Date

Reviewed by Fellowship Director: ___________________________ Date

Presented to GMEC for approval: ___________________________ Date
Phoenix Children’s Hospital is committed to making every effort to support the physical and emotional well-being of its trainees.

Impairment of performance by fellows can put patients at risk. Impairment shall be managed as a medical/behavioral illness. Implicit in this concept is the existence of criteria permitting diagnosis, opportunity for treatment, and with successful progress toward recovery, the possibility of returning to training in an appropriate capacity. Impairment may result from fatigue, depression or other behavioral problems, from physical impairment, from medical illness, and from substance abuse and consequent chemical dependency.

The goals of this policy are to (1) prevent or minimize the occurrence of impairment, including substance abuse, among fellows in programs sponsored by Phoenix Children’s Hospital, (2) protect patients from risks associated with care given by impaired physicians, and (3) compassionately confront problems of impairment to effect diagnosis, relief from patient care responsibilities if necessary, treatment as indicated, and appropriate rehabilitation.

IDENTIFICATION OF IMPAIRMENT

Listed below are signs and symptoms of impairment. Isolated instances of any of these may not impair ability to perform adequately, but if they are noted on a continued basis or if multiple signs are observed, reporting may be indicated. The signs and symptoms may include:

- Physical signs such as fatigue, deterioration in personal hygiene and appearance, multiple physical complaints, accidents, eating disorders.

- Family stability disturbances.

- Social changes such as withdrawal from outside activities, isolation from peers, inappropriate behavior, undependability and unpredictability, aggressive behavior and argumentativeness.

- Professional behavior problems such as unexplained absences, tardiness, decreasing quality or interest in work, inappropriate orders, behavioral changes, altered interaction with other staff and inadequate professional performance.

- Behavioral signs such as mood changes, depression, slowness, lapses of attention, chronic exhaustion, risk taking behavior, excessive cheerfulness, and flat affect.
Drug use indicators such as excessive agitation or edginess, dilated or pinpoint pupils, self-medication with psychotropic drugs, stereotypical behavior, alcohol on breath at work, uncontrolled drinking at social events, blackouts, and binge drinking.

It is the responsibility of the Program Director and faculty to communicate this policy to fellows and to enforce its provisions. Faculty or trainees who suspect that a fellow is suffering impairment shall follow this policy and its procedures.

PROCEDURE

- **Education:** To try and minimize the incidence of impairment, all fellows will receive education regarding physician impairment, fatigue and substance abuse, its incidence and nature and risks to the physician and patients. This will include recognizing concerning signs and symptoms of impairment. All fellows will be informed at orientation about physician impairment, this policy and the resources available at the hospital at which the physician is based.

- **Counseling and Management:**
  All fellows have access to behavioral health services through the Employee Assistance Program as a part of their health benefits at Phoenix Children’s Hospital.

- **Reporting:** All faculty and fellows have a duty to report to an appropriate supervisor, in confidence, concerns about possible impairment both in themselves and in others.

  If it is determined that a fellow may have an impairment problem, the Program Director will meet with the fellow and gather additional information to better assess the situation. When this process substantiates the initial concerns, the program may take any of the following actions:

  - Provide ongoing support and monitoring of the fellow.
  - Refer the fellow to the Employment Assistance Program (EAP) or other pertinent health resources.
  - Require the fellow to seek a confidential assessment by a mental health professional.
  - Notify the Physicians’ Confidential Assistance Line of the Arizona Medical Board.
  - Report to the RRC or GME Committee as appropriate.
  - Determine whether a leave of absence from program activities is appropriate.

Failure of the fellow to accept referral to counseling or to abide by the treatment program may be considered grounds for disciplinary action.
and may result in suspension or termination from the program. In any event, use of illegal drugs, the unprescribed use of pharmaceuticals and impairment while on duty are all violations of standards of conduct for which the fellow may be disciplined, up to and including, termination from the program.

- **Self-Reporting:** Phoenix Children’s Hospital is eager to assist fellows with impairment problems and encourages any trainees with impairment problems to contact their Program Directors or their hospital’s counseling resources for assistance. Fellows shall not be subject to disciplinary action for voluntarily acknowledging an impairment problem. (Note, however, that this will not excuse violations of other policies for which the fellow is subject to disciplinary action.)

- **Continuation of Training:** In order for a fellow to resume training after a referral, there shall be satisfactory evidence of the successful completion of or participation in an appropriate treatment program and a determination that the trainee is fit to return to duty. Further, the fellow shall agree to a provisional period during which time he or she may be monitored and/or tested periodically.

- **Confidentiality:** The identification, counseling, and treatment of an impaired fellow is deemed confidential, except as necessary to carry out the policies of the GMEC and as required by law.

---

Michael Henry, MD  
Fellowship Director  
Pediatric Hematology/Oncology  
Phoenix Children’s Hospital
Phoenix Children’s Hospital
Hematology/Oncology Fellowship Program
Moonlighting Policy

Any Fellow on contract with Phoenix Children’s Hospital who wishes to engage in professional activities outside the educational program for remuneration (“moonlighting”) must obtain written approval from the Director of his/her training program and the Director of Medical Education. This statement of permission will be included in the fellow’s file. No fellow will be required to engage in moonlighting. Moonlighting is not permitted until the fellow advances to the second year of the fellowship training curriculum.

The Program Director will:

- Require a written request to moonlight from the fellow using the Moonlighting Agreement Form. The form must be signed by the fellow, fellowship program director, and Designated Institutional Official prior to the start of any moonlighting.
- Monitor the resident/fellow performance to assure that the duty hour limits are not violated, and fatigue is not contributing to diminished learning or performance or interfering with patient safety. If duty hours are exceeded, or if moonlighting interferes with the fellow’s ability to perform his/her expected duties as required by the fellowship program, the Program Director has the authority and obligation to revoke the fellow’s moonlighting privileges.

The Fellow will:

- if required, have an independent medical license to participate in such activity,
- if required, have the necessary DEA number (independent of the PCH DEA number) to prescribe controlled substances if that is expected,
- if required, have necessary professional liability coverage separate and apart from the training program coverage, and
- not depend upon PCH personnel, e.g., hospital operators, secretaries, etc. for providing assistance in fulfilling the duties and responsibilities of such activities.

Professional activities for which the fellow receives remuneration over and above his/her usual stipend may be considered part of the fellowship curriculum, thereby qualifying the fellow and supervisors for PCH professional liability coverage, as long as:

- there is qualified faculty supervision
- the experience provided would be difficult to obtain otherwise
- the experience is pre-approved for curricular credit on an individual basis by the resident’s/fellow’s Program Director and the DME, and
- an evaluation is completed by the supervising physician(s) based upon the objectives of the experience.
Malpractice (Professional Liability Coverage)

Phoenix Children’s Hospital provides professional liability coverage for residents/fellows. Such coverage extends to professional acts occurring in the course of residents’/fellows’ responsibilities under participation in the training program. This insurance provides coverage on an “occurrence” basis, or if claims made it will include unlimited extended claims reporting coverage (tail). This insurance does not cover resident/fellow for any activities performed outside the scope of the training program responsibilities. (e.g. “Moonlighting”). Any exceptions must have prior approval from Risk Management. The resident/fellow must contact Phoenix Children’s Hospital’s Risk Management Department whenever there is an adverse event that may lead to a claim or if the resident/fellow receives a subpoena or claim. Risk Management is available 24 hours a day.

Michael Henry, MD
Fellowship Director
Pediatric Hematology/Oncology
Phoenix Children’s Hospital
Phoenix Children’s Hospital  
Moonlighting Agreement Form

<table>
<thead>
<tr>
<th>Location of Moonlighting</th>
<th>Approx. hrs/mo</th>
<th>On Site Supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

AZ License Number: ___________________  
DEA Number: ___________________

Malpractice insurance coverage and number where necessary: 
____________________________________
____________________________________

I hereby acknowledge that I am contracting to engage in moonlighting activities as an independent medical provider and that such employment shall not interfere with my duties or performance in my residency or fellowship training program. I have read and understand the Moonlighting policy in the Phoenix Children’s Hospital Fellowship Manual.

Fellow Signature     Date

Director of Medical Education/DIO  Date  

Program Director Signature     Date  Approval Granted    Approval Denied
Phoenix Children’s Hospital
Hematology/Oncology Fellowship Program
GRIEVANCE PROCEDURE AND DUE PROCESS POLICY

Purpose:
The Phoenix Children’s Hospital Hematology/Oncology Fellowship Program is committed to maintaining a fair method of resolving fellow concerns and answering questions. To this end, all fellows are encouraged to raise informally any questions or concerns they have about the terms or conditions of their employment. If informal methods are not satisfactory, the Fellow Grievance Policy makes a four-step process available to fellows who wish to file a grievance. The Phoenix Children's Hospital Hematology/Oncology Fellowship Program is also committed to preventing any retaliation against persons who raise legitimate questions about the terms and conditions of employment in good faith.

Policy:
Fellows are encouraged to raise questions or concerns about the Fellow Employment Contract, academic programs and policies, departmental work rules, and unsafe or unhealthy work environments. Fellows should discuss these issues with their Supervising Attending Physician, Faculty Advisor, or Program Director whenever possible to resolve the concerns. If the concerns cannot be resolved to the Fellow’s satisfaction by the Fellow’s Supervising Attending, Faculty Advisor or Program Director, this procedure provides for additional prompt review by the Director of Medical Education and the Chief Executive Officer of the sponsoring institution.

Definitions:
1. Chief Executive Officer (C.E.O.) or General Council: The single executive head of Phoenix Children’s Hospital Department of Medical Education.
2. Director of Medical Education (DME): The person responsible for the day-to-day operations of Phoenix Children’s Hospital.
3. Phoenix Children's Hospital Graduate Medical Education Committee (GMEC): A body comprised of the Program Directors of the graduate medical training programs at Phoenix Children's Hospital, as well as elected members of the Phoenix Children’s Hospital medical education community.
4. Fellow: A physician in training under contract with Phoenix Children’s Hospital who is enrolled in the Phoenix Children's Hospital Hematology/Oncology Fellowship Program.
5. Supervising Attending Physician: An attending physician who is responsible for the performance of the fellow.
6. Faculty Advisor: A Phoenix Children's Hospital Hematology/Oncology Fellowship Program faculty member appointed to serve as a mentor for the fellow in the Phoenix Children's Hospital Hematology/Oncology Fellowship Program.

Procedure:
1. Ordinarily, the Fellow is expected to start by seeking answers to a question or resolving a concern by an informal discussion with his/her Supervising Attending Physician, Faculty Advisor, or Program Director.
2. If the question or concern cannot be resolved informally, the Fellow may file a formal grievance and again discuss the question or concern with his/her Supervising Attending Physician, Faculty Advisor, or Program Director. The fellow should clearly document the grievance, the date of occurrence, and the results of any prior discussion regarding the matter with his/her Supervising Attending, Faculty Advisor, or Program Director.
3. If the fellow is not satisfied with the response of the Supervising Attending, Faculty Advisor or Program Director, the Fellow may forward his/her concern to the Graduate Medical Education Committee. The GMEC may appoint a
subcommittee of its members to serve as a Grievance Subcommittee to handle formal grievances initiated by a fellow.

4. If the Fellow still is not satisfied with the response that has been received, (or a timely response has not been provided to the fellow), the fellow may address a written request for review to the C.E.O. or General Council of their sponsoring institution. Where appropriate, the C.E.O. or designee will investigate, review, and discuss the fellows concern with the fellow as soon as possible. The C.E.O. or designee will provide a written response to the Fellow, which will be the final decision and resolution of the Fellow’s concern.

Prohibition against Retaliation:

The Phoenix Children's Hospital Hematology/Oncology Fellowship Program is committed to preventing any retaliation against persons who raise legitimate questions about the terms and conditions of their employment in good faith. All managers and supervisors at all levels are expected to take the time to answer questions and work toward the resolution of workplace concerns.

The Phoenix Children’s Hospital Hematology/Oncology Fellowship Program will provide fellows with fair and reasonable procedures for due process that minimize conflict of interest by adjudicating parties in addressing:

- Academic or other disciplinary actions taken against fellows that could result in dismissal, non-renewal of a fellow’s agreement, non-promotion of a fellow to the next level of training, or other actions that could significantly threaten a fellow’s intended career development and;

- Adjudication of fellow complaints and grievances related to the work environment or issues related to the program or faculty.

The above mentioned policy may be used in conjunction with the policies already established at the fellow’s base-pay hospital.

Michael Henry, MD  
Fellowship Director  
Pediatric Hematology/Oncology  
Phoenix Children’s Hospital
The Teaching Faculty have an ethical and legal responsibility for the overall care of their patients and for the supervision of the fellows involved in the care of their patients. A chain of command that allows for graduated authority and increasing responsibility as clinical experience is gained is essential for the trainees. Judgments regarding this delegation of responsibility must be made by the faculty member based on their direct observation and knowledge of each fellow’s skill and ability.

To ensure fulfillment of this responsibility, the following principles of supervision have been established:

- Ultimately, all patients admitted for care are the responsibility of the Medical Staff Member. The fellow will act under the direction and supervision of a qualified member of the Teaching Faculty. Consequently, the faculty member is responsible for all actions of the fellow, whether or not the faculty member is physically present when decisions or actions are undertaken.

- Judgments on delegating responsibility to a fellow must be made by a member of the Teaching Faculty and it is their responsibility to determine the intensity of supervision required within the scope of the fellowship program. It is presumed that a fellow who is progressing in their clinical training will demonstrate the ability to be able to function increasingly as an independent physician.

- Proper supervision must be completed in accordance with safe and effective patient care; the degree of supervision that is appropriate may vary with the clinical circumstances and the training level of the fellow. In order to exercise these supervisory responsibilities properly, a designated member of the teaching staff always must be immediately available for consultation and support.

- It is the responsibility of the faculty member to notify the Program Director of any fellow who does not meet expected standards and discuss their concerns.

- Any concerns regarding the ability of a member of the Teaching Faculty to supervise fellows, or violations of the above principles should be brought to the Program Director for resolution.
Vacation or paid leave will be granted to Fellows as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Vacation</th>
<th>CME</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGY 4</td>
<td>3/weeks</td>
<td>1/week</td>
</tr>
<tr>
<td></td>
<td>vacation</td>
<td>CME</td>
</tr>
<tr>
<td>PGY 5</td>
<td>3/weeks</td>
<td>1/week</td>
</tr>
<tr>
<td></td>
<td>vacation</td>
<td>CME</td>
</tr>
<tr>
<td>PGY 6</td>
<td>3/weeks</td>
<td>1/week</td>
</tr>
<tr>
<td></td>
<td>vacation</td>
<td>CME</td>
</tr>
</tbody>
</table>

Process:

Vacations will be scheduled for three intervals during the academic year. A vacation request should be made for 5 consecutive weekdays, and one weekend. If requests are not submitted, vacation will be assigned to the fellow.

Sick time will be considered unscheduled PTO and be applied to the above totals.

Exceptions to the above guidelines will be considered on a case-by-case basis, with Program Director approval.
Definition:
Promotion is the process in each graduate medical education training program that determines whether a fellow is eligible to progress from one Post Graduate Year to the next.

Procedure:
The Program Director will review the performance of each fellow. A recommendation will then be made for each fellow to progress, progress with specific concerns, or to remain at their current level of training with a defined remediation plan outlined.

The Program Director will make the final determination on the progression of each fellow in the program, and will submit a list annually of fellows who are advancing in the program with their designated PGY level to the members of the Graduate Medical Education Committee for their approval.

Michael Henry, MD
Fellowship Director
Pediatric Hematology/Oncology
Phoenix Children’s Hospital
NON-PROMOTION

In instances where a fellow’s agreement will not be renewed, or when a fellow will not be promoted to the next level of training, PCH will ensure that its programs provide the fellow with a written notice of intent no later than four months prior to the end of the fellow’s current agreement. If the primary reason(s) for the non-renewal or non-promotion occurs within the four months prior to the end of the agreement, PCH will ensure that its programs provide the fellow with as much written notice of the intent not to renew or not to promote as circumstances will reasonably allow, prior to the end of the agreement.

Fellows will be allowed to implement the Institution’s Grievance Procedure and Due Process Policy if they receive a written notice of intent not to renew their agreement(s) or of intent to renew their agreement(s) but not to promote them to the next level of training.

TERMINATION FOR ALLEGED PERSONAL MISCONDUCT OR CRIMINAL ACTIVITY

In the event that a fellow is suspected of criminal activity and/or behaviors that endanger patients, families, or other employees, the Program Director may suspend the fellow immediately and follow guidelines in the Fellow Disciplinary Policy with oversight from the Graduate Medical Education Committee at the fellow’s base hospital. The fellow will then be subject to the respective institutional guidelines dealing with the alleged personal misconduct or criminal activity.
ALL REQUESTS FOR EXTENDED LEAVE MUST BE SUBMITTED IN WRITING TO THE PROGRAM DIRECTOR FOR APPROVAL.

APPROVED CONDITIONS FOR LEAVE
The fellow recognizes that under certain situations a fellow may require and obtain temporary leave from his or her duties. These situations include:

1. Maternity leave following the birth of a child
2. Paternity leave following the birth of a child
3. Serious illness of a family member
4. Personal illness requiring medical care
5. Adoption of a child

DURATION OF LEAVE AND TRAINING EXTENSION
In compliance with the Family Medical Leave Act (FMLA), a fellow may request up to 12 weeks unpaid leave for the above conditions in a 12-month period. However, as per the American Board of Pediatrics certification requirements, a pediatric fellow must complete 33 out of his or her 36-month training in order to be eligible for board certification. Any fellow who is absent for greater than 3 months (to include vacation time) will require a review by the Program Director to determine if an extension to the fellow’s 36 month training will be granted. If an extension is granted, the Program Director will specify the fellow’s clinical rotations with the intention to meet the educational goals of the fellow, the needs of the program, and the requirements for the American Board of Pediatrics certification.

MATERNITY LEAVE: Female fellows may obtain 6 weeks paid maternity leave following the birth of a child. These 6 weeks are included in the 12 weeks as mandated from the FMLA. Any additional requested leave will be deducted from unused vacation time and thereafter will be unpaid. If a fellow becomes disabled as a result of her pregnancy, the disability policy of the fellow’s base-hospital contract will take effect.

ABSENCE DUE TO PERSONAL ILLNESS or FAMILY ILLNESS or BEREAVEMENT:
Fellows are limited to 7 days paid leave during the 36 month fellowship due to personal illness or due to an illness or death in his/her family. Any absence thereafter will be deducted initially from unused vacation time and thereafter will be unpaid. Absences will be documented by the Program Coordinator and fellows will be notified when their absences are near 7 days.

The Program Director recognizes that unique situations may arise which are outside the limits of this policy. He/She reserves the right to review and evaluate each individual request for absence and extended leave request. This policy may be used in conjunction with the policies already established at the fellow’s base-pay hospital.

Michael Henry, MD
Fellowship Director
Pediatric Hematology/Oncology
Phoenix Children’s Hospital
Purpose: To document the process of fellow evaluation.

Process:
In accordance with the RRC/ACGME requirements, fellows are informed of Goals & Objectives for each scheduled rotation prior to the start of the rotation. Upon completion of the rotation, each fellow is evaluated regarding their ability to accomplish the stated objectives. The performance evaluation is global, and includes an evaluation completed by the supervising attending physician(s).

Fellow performance is evaluated comprehensively in their continuity clinic. A multi-source evaluation is completed, with input from nursing staff, social work, ancillary support staff and patients. This information is reviewed by the continuity clinic attending, and shared with the fellow so that any concerns can be addressed and tracked.

Fellows are directly observed during rotations in the program to evaluate and document their clinical competence. Feedback is given at the time of the observation and documented as part of their performance file.

A fellow’s overall performance and compliance with program requirements is reviewed semi-annually by the fellow, program director, and their faculty advisor. At the completion of training, the Program Director completes a Summative Evaluation documenting the performance of each fellow in the program.

Program Directors and Faculty Advisors may become involved in the evaluation process at the request of the supervising faculty or other fellows, if a fellow is not reaching the Goals and Objectives of the rotation. The Faculty Advisor or Program Director meets with the fellow and gathers additional information as necessary to identify specific behaviors or skills that need to be improved, and to work with the fellow to develop an action plan to correct any deficiencies and track the fellow’s progress.

Fellows have the opportunity to evaluate each supervising attending physician at the end of each academic year. The information collected from the fellows remains anonymous and confidential and is provided to the Program Director for his/her review. In addition, each fellow is required to complete the comprehensive Program Critique at the end of each academic year.

Michael Henry, MD
Fellowship Director
Pediatric Hematology/Oncology
Phoenix Children’s Hospital
Purpose:
The purpose of this policy is to prescribe procedures regarding the imposition and review of discipline of Fellows. This disciplinary policy and procedure does not create a contractual obligation on the part of the Phoenix Children's Hospital Fellowship Program to use progressive discipline in all cases. Phoenix Children's Hospital Fellowship Program has the right to discipline any inappropriate conduct without being required to progress through these levels of discipline.

TYPES OF PROGRESSIVE DISCIPLINE

1. Oral Counseling:
This refers to a level of notice of a matter of disciplinary concern which may be taken by the Supervising Attending Physician, Faculty Advisor, or Program Director. An oral counseling is a warning. A discussion should be held between the Supervising Attending Physician, Faculty Advisor, or Program Director, and the Fellow. The Supervising Attending Physician, Faculty Advisor, or Program Director should advise the fellow of the problem, point out specific instances of the problem, and suggest appropriate corrective action. The discussion should be mutual and should focus on problem solving. The Supervising Attending, Faculty Advisor, or Program Director should document the discussion and send a copy to the Program Director. The Fellow should be advised that the problem behavior is not to be repeated and that more severe disciplinary action will be taken if the behavior recurs.

2. Written Reprimand:
This is a more serious and higher level of discipline which may be taken by the Supervising Attending Physician, Faculty Advisor or Program Director. A written reprimand should document the following:

1) Fellow’s name;
2) person(s) present at the meeting in which the Supervising Attending Physician, Program Director, or Faculty Advisor gives the written reprimand to the Fellow;
3) the reason for the reprimand;
4) a brief description of the incident or conduct for the reprimand;
5) the dates and times of the conduct for which the Fellow is being reprimanded;
6) dates of prior discipline regarding such conduct and any recommendations to correct deficiencies; and
7) a signature line for the Fellow and Program Director.

By signing the document, the Fellow is simply acknowledging receipt of the document. If the Fellow refuses to sign the document, the Program Director should make that notation on the document, sign and date it. The written reprimand may include a monitoring or observation period, state the standards for judging the Fellow’s improvement and how often during this period the Fellow will be evaluated.

3. Concern Status:
This is a level of formal discipline less serious than Probation. A Fellow may be placed on Concern Status by the Program Director for a period up to 6 months. The Program Director must notify the Medical Education Committee in writing of placement of a Fellow of Concern Status. Any extensions thereof or move to Probationary Status requires approval of the Phoenix Children’s Hospital Fellowship Program Medical Education
Committee. There are three types of Concern Status: Clinical, Academic and Professional.

- Clinical Concern includes unsatisfactory performance on the clinical portions of the fellowship program.
- Academic Concern includes unsatisfactory performance in the knowledge base portions of the fellowship program.
- Professional Concern includes behaviors which call into question the ethical, personal, or moral attributes of the fellow as they relate to fitness to practice medicine.

During the period of Concern Status, the Program Director shall evaluate the Fellow monthly, shall inform the Fellow in writing of the deficiencies and expectations for remediating Concern Status, and may remove Fellow from such status by written notice with copies sent to the Disciplinary Committee.

4. Probation:
This is a period of critical examination of a Fellow to determine if the person is fit to continue in the program. Probation status shall be reported to the Arizona Board of Medical Examiners at the time of the next training license renewal. Probation may be preceded by Concern Status (clinical, academic or professional) but may be imposed without such prior discipline if warranted by the seriousness of the precipitating circumstances. Probation may be imposed for up to 3 months by the Medical Education Committee upon recommendation of the Program Director. Extended probation status shall be reviewed at the end of rotations by the Medical Education Committee. During the period of Probation the Program Director shall evaluate the Fellow monthly, shall inform the Fellow in writing of the deficiencies and expectation, and may remove Fellow from such status by written notice with copies sent to the Medical Education Committee.

TERMINATION FOR CAUSE
The Phoenix Children's Hospital Hematology/Oncology Fellowship Program Medical Education Committee may recommend the termination of a Fellow's Contract for any of the causes enumerated in the Fellow Contract. Approval to terminate must be obtained from the Chief Executive officer of the Fellow's sponsoring institution.

* The above mentioned policy may be used in conjunction with the policies already established at the fellow's base-pay hospital.

Michael Henry, MD
Fellowship Director
Pediatric Hematology/Oncology
Phoenix Children's Hospital
Policy:
All training programs sponsored by Phoenix Children’s Hospital shall be in compliance with the Resident Duty Hour requirements established by the Accreditation Council for Graduate Medical Education (ACGME).

Procedure:

1. Duty Hours

   a. Duty hours are defined as all clinical and academic activities related to the fellowship program, *ie*, patient care (both inpatient and outpatient), administrative duties related to patient care, the provision for transfer of patient care, time spent in-house during night call activities, and scheduled academic activities such as conferences. Duty hours do not include reading and preparation time or time on pager call spent away from the duty site.
   
   b. Duty hours must be limited to 80 hours per week when averaged over a four-week period, inclusive of all in-house call activities.
   
   c. Fellows must be provided with 1 day in 7 free from all educational and clinical responsibilities, averaged over a 4-week period, inclusive of call. One day is defined as one continuous 24-hour period free from all clinical, educational, and administrative activities.
   
   d. Adequate time for rest and personal activities must be provided. This should consist of a 10 hour time period provided between all patient duty periods.

2. On-Call Activities

   The objective of on-call activities is to provide fellows with experience with continuity and acute patient care experiences after hours and on the weekends. “On-call” is defined as time when the fellow is available by pager for such patient care activities.
   
   a. No in-house call is required, but the fellow must be available for immediate telephone consultation when paged.
   
   b. The on-call fellow must be within driving distance to the hospital to assist in patient care emergencies or urgent consultations.
   
   c. At-home call (pager call) is defined as call taken from outside the assigned institution.
   
      1. At-home call must not be so frequent as to preclude rest and reasonable personal time for each fellow. Fellows taking at-home call must be provided
with 1 day in 7 completely free from all educational and clinical responsibilities, averaged over a 4-week period.

2. When fellows are called into the hospital from home, the hours fellows spend in-house are counted toward the 80-hour limit and must be reported in the duty hour survey.

3. The program director and the faculty must monitor the demands of at-home call in their programs and make scheduling adjustments as necessary to mitigate excessive service demands and/or fatigue.

3. Moonlighting is included in and must comply with the 80 work week per ACGME requirements.

4. Any fellow that feels they are unsafe to drive themselves home after work may call for a cab and be reimbursed by the Department of Graduate Medical Education.

5. Monitoring:

   a. Each fellowship program at PCH will compile a Fellow Duty Hour Report to be presented at the GMEC meeting for review on a bi-monthly basis.

   b. The Director of Medical Education will query the fellow representatives regarding duty hours and fatigue during the GMEC meeting.

   c. Internal reviews will include the program policy for duty hours, monitoring mechanisms and documentation.

   d. Each individual residency and fellowship program will submit the results of the ACGME duty hours survey for committee review.

   e. Periodically, the Department of Graduate Medical Education will survey all or selected groups of fellows and convey the results to the Program Directors.

References:
ACGME Institutional Requirements 2007
ACGME Common Program Requirements 2007

Michael Henry, MD
Fellowship Director
Pediatric Hematology/Oncology
Phoenix Children’s Hospital
The personal appearance of each fellow is a reflection of the professional atmosphere of the organization. Fellows are expected to maintain a positive and professional image.

Guidelines & Procedures:

- ID badges must be worn at all times when on the hospital campus, and must be clearly visible.
- All clothing should be clean, neat, well-mended, and appropriate to their job responsibilities.
- Open-toed shoes and blue jeans are not allowed.
- Hair and beard must be clean, neat and well-groomed. Nails should be clean, short, and neatly manicured.
- Body tattoos should be covered whenever possible.
- Garments that are unusually revealing, discriminatory, unsafe, or offensive in any way should not be worn. Appropriate under garments, which are inconspicuous, must be worn at all times, and should not be visible outside or through clothing.
- Scrubs may be worn at the fellow’s discretion. However, when worn to outpatient clinic sites, a clean white coat must be worn over them.

For other more specific guidelines, please see the appearance and dress code policies at each respective institution, with which fellows are expected to comply.

Michael Henry, MD
Fellowship Director
Pediatric Hematology/Oncology
Phoenix Children’s Hospital
Training Expectations: All fellows in the Hematology/Oncology Fellowship Program will be expected to attend at least 75% of all didactic training experiences offered during each academic year of their training.

Approved Didactic Training Experiences: Any didactic training experiences listed on the monthly calendar provided by the PCH Fellowship Training Office will be considered to be an acceptable and approved didactic training experience for the Fellowship Program. Fellows wishing to have special educational events (an off-site medical conference, for example) considered for credit under this Policy must obtain prior approval from the Program Director.

In order to obtain credit for attendance at a Conference, fellows must sign-in within the first 15 minutes of the start of the conference. Conference attendees are also expected to complete and turn in the Conference Evaluation Form at the end of the session.

Fellows’ participation in lunch meetings with fellowship interviewees that are held during the Fellowship Training Program recruitment period in the winter and early spring may be counted toward the annual 75% requirement. Each lunch will count as an hour of didactic training time. Fellows must complete the Applicant Lunch Evaluation Form and turn it into the Fellowship Training Office in order to receive credit for a lunch meeting.

Tracking and Enforcement: Required conferences that are part of the Fellowship Training Program’s Monthly Conference Schedule (75% annual attendance required) will be tracked using attendance sign-in sheets and kept by the Fellowship Coordinator. This tracking information will be available on an ongoing basis to fellows and their Advisors and will be included in semi-annual reports provided to fellows, Advisors, and Program Directors.

Adherence to these didactic training requirements will be a factor in determining advancement in the program.

Michael Henry, MD
Fellowship Director
Pediatric Hematology/Oncology
Phoenix Children’s Hospital
Phoenix Children’s Hospital
Hematology/Oncology Fellowship Program
Sick Call Policy

If a fellow is unable to cover their program assignment due to illness, or family emergency, they must notify the Program Coordinator or Program Director as soon as possible after it is known that fellow will not be able to present for the assignment.

**The American Board of Pediatrics stipulates that a fellow must complete 33 months of clinical time during a 36 month fellowship to be Board Eligible. The 3 months that are excused from clinical time includes vacation time. The fellowship program offers nine weeks of vacation. Fellows may be required to make up missed time if 33 months of clinical time have not been successfully completed during their fellowship. This time may be taken from existing vacation time or after the 36-month period. This is a policy of the American Board of Pediatrics. The Program Director and Program Coordinator will document absences.

Michael Henry, MD
Fellowship Director
Pediatric Hematology/Oncology
Phoenix Children’s Hospital
Scholarship Oversight Committee Guidelines

Each fellow must design and conduct a scholarly project in order to graduate from the fellowship training program. This project will be carried out with the guidance of the fellowship director, clinical mentor, research mentor, and scholarship oversight committee. The program must provide a scholarship oversight committee for each fellow to evaluate the fellow’s progress as related to scholarly activity.

The following are the guidelines we will follow:

- The scholarly activity must begin in first year and continue for the entire period of training.
- Time must be adequate to allow for the development of requisite skills, project completion, and presentation of results to a local scholarship oversight committee established for this review.
- The scholarship oversight committee will meet semi-annually to address these issues.
- A formal evaluation will be filled out by each member of the scholarship oversight committee.
- There will be open, honest discussion of the ideas, methodology, chance of success in completing the project and suggested timelines for the fellow to follow.

Scholarship Oversight Committee Members:

- Grace Caputo, MD
  PCH/MMC Residency Director
  Director of Medical Education
- Blake Bulloch, MD
  Emergency Medicine Fellowship Director
- Robert Yniguez, MD
  Emergency Medicine Fellowship Associate Program Director
- Michael Henry, MD
  Hematology/Oncology Fellowship Director
- Igor Dvorchik, PhD
  Statistician
- Harper Price, MD
  Dermatology Fellowship Director
- Craig Barnes, MD
  Radiology Fellowship Director
- Donnie Wilson, MD
  Endocrinology Fellowship Director
# Phoenix Children’s Hospital
## Hematology/Oncology Fellowship Program

### Evaluations - Table of Contents

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedure Evaluation</td>
<td>1</td>
</tr>
<tr>
<td>Direct Observation of Care Evaluation</td>
<td>2</td>
</tr>
<tr>
<td>Conference Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>Fellow Evaluation By Clinical Faculty</td>
<td>4</td>
</tr>
<tr>
<td>Fellow Evaluation By Research Faculty</td>
<td>7</td>
</tr>
<tr>
<td>Fellow Evaluation By Nursing/Allied Health</td>
<td>10</td>
</tr>
<tr>
<td>Fellow Evaluation By Medical Subspecialty Services</td>
<td>12</td>
</tr>
<tr>
<td>Fellow Evaluation By Administrative Staff</td>
<td>14</td>
</tr>
<tr>
<td>Fellow Evaluation By Families (English)</td>
<td>16</td>
</tr>
<tr>
<td>Fellow Evaluation By Families (Spanish)</td>
<td>18</td>
</tr>
<tr>
<td>Program Evaluation By Fellows</td>
<td>20</td>
</tr>
<tr>
<td>Faculty Evaluation By Fellows</td>
<td>23</td>
</tr>
<tr>
<td>Self Evaluation by Fellows</td>
<td>25</td>
</tr>
<tr>
<td>Program Evaluation By Faculty</td>
<td>28</td>
</tr>
<tr>
<td>Monthly Advisor Evaluation</td>
<td>29</td>
</tr>
<tr>
<td>Scholarship Oversight Committee Review</td>
<td>30</td>
</tr>
<tr>
<td>Semiannual Fellow Evaluation</td>
<td>31</td>
</tr>
<tr>
<td>Summative Fellow Evaluation</td>
<td>35</td>
</tr>
<tr>
<td>Semiannual Faculty Evaluation By Division Chief</td>
<td>36</td>
</tr>
</tbody>
</table>
Pediatric Hematology Oncology Fellowship
Procedure Evaluation

Fellow: ______________________________  Date: _________________

Activity Observed: __________________________________________________

Each of the performance expectations may be rated by the following definitions:

**Evaluation Scale:**

- **Excellent** – Far exceeds expectations. Only the top ten percent of fellows merit this rating.
- **Good** – Always meets expectations and occasionally exceeds them.
- **Adequate** – Meets expectations most of the time. Completes a task reasonably well with prompting from supervisor.
- **Marginal** – Unable to complete a task most of the time without prompting from supervisor.
- **Unsatisfactory** – Unable to complete a task without complete prompting or performs task in an unprofessional manner.

<table>
<thead>
<tr>
<th>Activity Observed</th>
<th>Unsatisfactory</th>
<th>Marginal</th>
<th>Adequate</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shows respect to patients and family members</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains rationale for procedure and discusses risk and benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discusses process of procedure with family in lay language</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepares for procedure in organized manner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performs procedure in logical and correct manner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is sensitive to patient’s comfort and level of modesty during procedure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respects the patients’ &amp; families’ privacy and autonomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates sound clinical judgment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orders appropriate labs and other studies with consideration of cost, risk, and benefit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completes required medical records (e.g., procedure note), signs verbal orders, and dictates letters to referring physician (when applicable)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides counseling for recovery and side effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains composure during stressful/crisis situations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments:_____________________________________________________________________________
______________________________________________________________________________________
_______________________________________________________________________________________
_______________________________________________________________________________________

Faculty (print name): __________________________  Date: ______________________
Faculty (signature):  __________________________ Date: ______________________
Fellow (signature):  __________________________  Date: ______________________
Pediatric Hematology Oncology Fellowship
Direct Observation of Care Evaluation

Fellow: ____________________________  Date: ________________

Activity Observed: __________________________________________________

Each of the performance expectations may be rated by the following definitions:

**Evaluation Scale:**

**Excellent** – Far exceeds expectations. Only the top ten percent of fellows merit this rating.

**Good** – Always meets expectations and occasionally exceeds them.

**Adequate** – Meets expectations most of the time. Completes a task reasonably well with prompting from supervisor.

**Marginal** – Unable to complete a task most of the time without prompting from supervisor.

**Unsatisfactory** – Unable to complete a task without complete prompting or performs task in an unprofessional manner.

<table>
<thead>
<tr>
<th>Performance Expectation</th>
<th>Unsatisfactory</th>
<th>Marginal</th>
<th>Adequate</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shows respect to patients and family members</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses effective interview technique and focuses interview to obtain patient's/parent's report of chief complaint and history</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performs physical examination in logical manner and relates pertinent findings clearly and concisely</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is sensitive to patient’s comfort and level of modesty during exam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respects the patients’ &amp; families’ privacy and autonomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is organized and prioritizes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates sound clinical judgment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orders appropriate labs and other studies with consideration of cost, risk, and benefit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completes required medical records (e.g., procedure note), signs verbal orders, and dictates letters to referring physician (when applicable)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains rationale for tests/treatments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides counseling for follow up management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains composure during stressful/crisis situations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments:_____________________________________________________________________________

______________________________________________________________________________________

_______________________________________________________________________________________

_______________________________________________________________________________________

_______________________________________________________________________________________

Faculty (print name): __________________________
Faculty (signature): __________________________  Date: ________________________
Fellow (signature): __________________________  Date: ________________________
Center For Cancer and Blood Disorders
Conference Evaluation

Speaker: _____________________   Date:____________

Conference Topic:   ______________________________

<table>
<thead>
<tr>
<th>Statement</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>The learning session was case based</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The learning session was interactive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The learning session was evidence-based</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goals and learning objectives were clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audiovisual materials were used effectively</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audience participation was fostered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall, the conference was instructive</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rating (10 is best):    10    9    8    7    6    5    4    3    2    1

Comments:_____________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________

Print name): __________________________
Signature): __________________________ Date: _____________________
The Center for Cancer and Blood Disorders expects its fellows to demonstrate the medical knowledge, communication, interpersonal skills and professionalism that promote care delivered in the best interest of the patient. Please complete this evaluation based on your interactions with the above-named fellow. If you cannot comment on an item, please leave it blank. Please elaborate on “unsatisfactory” responses in the space provided below. We ask that you discuss any significant concerns with the fellow privately before submitting this form. Please ensure you have reviewed this evaluation with the fellow and that the fellow has signed this form prior to submission to the fellowship program director.

Comments:
Please provide specific comments to substantiate any “unsatisfactory” response.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Do you have any additional concerns regarding this fellow’s communication, interpersonal, or professionalism skills?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Please provide information if this fellow has consistently performed in an outstanding manner.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Faculty (print name): __________________________  Date: ________________________
Faculty (signature):  __________________________ Date: ________________________
Fellow (signature):  __________________________ Date: ________________________
<table>
<thead>
<tr>
<th>Fellow name:</th>
<th>Un satisfactory Needs immediate counseling</th>
<th>Marg inal Often falls short - Needs immediate counseling</th>
<th>Needs improvement and guided direction</th>
<th>Good most of the time</th>
<th>Highly Competent and consistent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History Taking/Interviewing skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Exam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informed consent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnostic &amp; screening studies, including interpretation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synthesis of clinical data &amp; differential diagnoses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develops &amp; carries out management plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prescribes &amp; performs essential procedures well (bone marrow aspirate/biopsy, lumbar puncture)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counsels &amp; educates patients &amp; families, providing information to understand illness and prevent disease</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates sound clinical judgment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respects the patient’s &amp; families’ privacy and autonomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Medical Knowledge</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possesses appropriate fund of knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applies knowledge of basic and clinical sciences to development of care plans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment to scholarship; attendance and participation in didactics/conferences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Practice based learning &amp; improvement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analyzes own practice to improve performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actively participates in teaching other health care professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accepts constructive criticism gracefully</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates feedback into improvement activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses information technology to optimize learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communication/Interpersonal Skills</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establishes a therapeutic relationship with patients and families</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates willingness to listen to nursing and allied staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains information to patients and family using clear, understandable terms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keeps patients, families, nursing and allied staff informed of changes in the care plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writes orders that are clear and legible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains comprehensive, timely, and legible medical records</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently participates cooperatively in interdisciplinary rounds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicates effectively with other physicians</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Fellow name:

<table>
<thead>
<tr>
<th>Professionalism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Professionalism</strong></td>
</tr>
<tr>
<td>Delivers clear, concise and organized patient presentations during rounds and tumor boards</td>
</tr>
<tr>
<td>Completes consultations in a timely manner and communicates recommendations clearly and concisely with consulting medical team</td>
</tr>
<tr>
<td><strong>Altruism/Empathy</strong></td>
</tr>
<tr>
<td>Consistently attentive to details of patient comfort and delivery of care</td>
</tr>
<tr>
<td>Accepts inconvenience when necessary to meet the needs of the patient</td>
</tr>
<tr>
<td><strong>Respect</strong></td>
</tr>
<tr>
<td>Consistently respects patient privacy when conducting examinations</td>
</tr>
<tr>
<td>Provides care sensitive to patient’s age, gender, disabilities, cultural/ethnic diversity and sexual orientation</td>
</tr>
<tr>
<td>Consistently courteous and receptive to nursing and allied health staff</td>
</tr>
<tr>
<td><strong>Responsibility</strong></td>
</tr>
<tr>
<td>Demonstrates consistent and excellent work ethic</td>
</tr>
<tr>
<td>Consistently responds in a timely manner when paged or called</td>
</tr>
<tr>
<td>Consistently follows through on cross cover issues</td>
</tr>
<tr>
<td>Demonstrates dependability/commitment (patient follow-up, continuity of care)</td>
</tr>
<tr>
<td><strong>Integrity</strong></td>
</tr>
<tr>
<td>Maintains composure during stressful/crisis situations</td>
</tr>
<tr>
<td>Demonstrates honesty/integrity</td>
</tr>
<tr>
<td>Demonstrates high standards of ethical and moral behavior</td>
</tr>
<tr>
<td><strong>Systems Based Practice</strong></td>
</tr>
<tr>
<td>Understands interaction of various health care delivery systems and works effectively to optimize the use of outside resources</td>
</tr>
<tr>
<td>Incorporates cost-awareness and risk-benefit analysis</td>
</tr>
<tr>
<td>Understands and works well to transition patients from in-patient care to out-patient based care</td>
</tr>
<tr>
<td>Advocates for quality care for patients within the health care system</td>
</tr>
<tr>
<td>Promotes health and preventive practice education with patients and families</td>
</tr>
<tr>
<td>Participates in Quality Insurance methods and assists in developing systems improvement</td>
</tr>
</tbody>
</table>

**OVERALL RATING:** Unsatisfactory  Marginal  Needs Improvement  Good  Highly Competent

Methods of assessment include (check all that apply):
- Direct observation
- Chart-stimulated recall
- Participation in didactics/conferences
- Experience on-call (phone)
- Review of charting
- Global impressions from team
Pediatric Hematology Oncology Fellowship
Hematology/Oncology Fellow Research Evaluation Form

Fellow: ______________________________  Date: _____________________

The Center for Cancer and Blood Disorders expects its fellows to demonstrate the medical knowledge, communication, interpersonal skills and professionalism that promote a scholarly approach to research design, method, and execution. Please complete this evaluation based on your interactions with the above-named fellow. If you cannot comment on an item, please leave it blank. Please elaborate on “unsatisfactory” responses in the space provided below. We ask that you discuss any significant concerns with the fellow privately before submitting this form. Please ensure you have reviewed this evaluation with the fellow and that the fellow has signed this form prior to submission to the fellowship program director.

Comments:
Please provide specific comments to substantiate any “unsatisfactory” response.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Do you have any additional concerns regarding this fellow’s communication, interpersonal, or professionalism skills?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Please provide information if this fellow has consistently performed in an outstanding manner.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Faculty (print name): __________________________
Faculty (signature):  __________________________ Date: ________________________
Fellow (signature):  __________________________ Date: ________________________
<table>
<thead>
<tr>
<th></th>
<th>Unsatisfactory Needs immediate counseling</th>
<th>Marginal Often falls short - Needs immediate counseling</th>
<th>Needs improvement and guided direction</th>
<th>Good most of the time</th>
<th>Highly Competent and consistent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scientific Knowledge</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cites literature appropri</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thoroughly investigates topics needed for research project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment to scholarship; attendance and participation in didactics/conferences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applies knowledge toward experimental design</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates analytical thinking and problem-solving</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicates appropriate basic science knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Practice-Based Learning &amp; Improvement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates knowledge of study design and statistical methods necessary to evaluate current literature</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates active learning and improvement in new laboratory technique</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates active and interested inquiry when exposed to new topics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands fundamental elements of hypothesis-driven research</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accepts constructive criticism gracefully</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates feedback into improvement activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses information technology to optimize learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaches students, staff, and colleagues regularly and effectively</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communication/Interpersonal Skills</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interacts well with staff, faculty, and colleagues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates willingness to listen to laboratory co-workers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains comprehensive, timely, and legible laboratory records</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently participates cooperatively in laboratory seminars</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivers clear, concise and organized project presentations during laboratory seminars</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writes clear and concise grants and/or manuscripts for submission</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Professionalism</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Altruism/Empathy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains honest data collection and experimental technique</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accepts inconvenience when necessary to complete critical sections of project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Fellow name:

<table>
<thead>
<tr>
<th><strong>-Respect</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Consistently respects patient privacy with respect to data collection</td>
<td></td>
</tr>
<tr>
<td>Consistently courteous and receptive to laboratory staff, faculty, and colleagues</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>-Responsibility</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates consistent and excellent work ethic</td>
<td></td>
</tr>
<tr>
<td>Consistently responds in a timely manner when paged or called</td>
<td></td>
</tr>
<tr>
<td>Consistently upholds HIPAA and CITI standards for responsible research practices</td>
<td></td>
</tr>
<tr>
<td>Consistently assists in general laboratory housekeeping, maintenance, and cleanup chores</td>
<td></td>
</tr>
<tr>
<td>Demonstrates dependability and commitment</td>
<td></td>
</tr>
<tr>
<td>Research project is on track for completion in the appropriate timeframe</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>-Integrity</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintains composure during stressful/crisis situations</td>
<td></td>
</tr>
<tr>
<td>Demonstrates honesty/integrity</td>
<td></td>
</tr>
<tr>
<td>Demonstrates high standards of ethical and moral behavior</td>
<td></td>
</tr>
</tbody>
</table>

**Systems Based Practice**

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborates well with others, both inside and outside the primary research institution</td>
</tr>
<tr>
<td>Incorporates cost-awareness into laboratory practice</td>
</tr>
<tr>
<td>Consistently contributes to the research team</td>
</tr>
<tr>
<td>Shares knowledge with others</td>
</tr>
<tr>
<td>Asks for advice when appropriate from more experienced laboratory staff</td>
</tr>
</tbody>
</table>

**OVERALL RATING:**  
Unsatisfactory  
Marginal  
Needs Improvement  
Good  
Highly Competent  

Methods of assessment include (check all that apply):  
____ Direct observation  
____ Participation in didactics/seminars  
____ Global impressions from research team  
____ Review of project data
Pediatric Hematology Oncology Fellowship
Evaluation of fellows by nursing and allied health services groups
(Nursing, Nurse Practitioner, Social work, Child life, Case management, Nutrition staff)

Fellow: ______________________________  Date: __________________
Evaluator (optional): _________________________ Role: _________________

The Center for Cancer and Blood Disorders expects its fellows to demonstrate the
communication, interpersonal skills and professionalism that promote care delivered in the best
interest of the patient. Please complete this evaluation based on your interactions with the
above-named fellow. If you cannot comment on an item, please leave it blank. Please elaborate
on “unacceptable” responses in the space provided below. We ask that you or your immediate
supervisor discuss any significant concerns with the fellow privately before submitting this form.
Please note that the fellow will not see your individual responses, but that they will see a
summary of compiled responses from all nursing and allied health staff.

Comments:
Please provide specific comments to substantiate any “unacceptable” response.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Do you have any additional concerns regarding this fellow’s communication, interpersonal, or
professionalism skills?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Please provide information if this fellow has consistently performed in an outstanding manner.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
<table>
<thead>
<tr>
<th>Evaluation form- Fellow name:</th>
<th>Outstanding</th>
<th>Very Good</th>
<th>Good</th>
<th>Acceptable</th>
<th>Unacceptable*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently demonstrates care and respect for patients and health care team</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questions families and patients well</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counsels and educates families and patients well</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performs medical procedures efficiently</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Works well with interdisciplinary team</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Practice-Based Learning &amp; Improvement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviews own decisions toward improving patient care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilitates learning of others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communication/Interpersonal Skills</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently demonstrates willingness to listen to patients and families</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently demonstrates willingness to listen to nursing and allied staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently explains information to patients and family using clear, understandable terms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently keeps patients, families, nursing and allied staff informed of changes in the care plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently writes orders that are clear and legible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently participates cooperatively in interdisciplinary rounds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Professionalism</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Altruism/Empathy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently attentive to details of patient comfort and delivery of care (meds for pain control; renewing meds; resuming diet after tests)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accepts inconvenience when necessary to meet the needs of the patient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Respect</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently respects patient privacy when conducting examinations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently courteous and receptive to nursing and allied health staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Responsibility</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently responds in a timely manner when paged or called</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently follows through on cross cover issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Integrity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains composure during stressful/crisis situations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Systems Based Practice</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands the health care interdisciplinary team and uses individuals strengths of the team well</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands and works well to transition patients from in-patient care to out-patient based care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocates for patients within the health care system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Pediatric Hematology Oncology Fellowship
Evaluation of fellows by medical specialty services
(Surgery, Pathology, Laboratory, Transfusion medicine)

Fellow: ______________________________  Date: _________________
Evaluator (optional): _________________________ Role: _________________

The Center for Cancer and Blood Disorders expects its fellows to demonstrate the communication, interpersonal skills and professionalism that promote care delivered in the best interest of the patient. Please complete this evaluation based on your interactions with the above-named fellow. If you cannot comment on an item, please leave it blank. Please elaborate on “unacceptable” responses in the space provided below. We ask that you or your immediate supervisor discuss any significant concerns with the fellow privately before submitting this form. Please note that the fellow will not see your individual responses, but that they will see a summary of compiled responses from all nursing and allied health staff.

Comments:
Please provide specific comments to substantiate any “unacceptable” response.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Do you have any additional concerns regarding this fellow’s communication, interpersonal, or professionalism skills?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Please provide information if this fellow has consistently performed in an outstanding manner.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
<table>
<thead>
<tr>
<th>Evaluation form- Fellow name:</th>
<th>Outstanding</th>
<th>Very Good</th>
<th>Good</th>
<th>Acceptable</th>
<th>Unacceptable*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently demonstrates care and respect for patients and health care team</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently performs medical procedures well (bone marrows and spinal taps in the OR)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Works well with interdisciplinary team</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Practice-Based Learning &amp; Improvement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates active and interested inquiry when exposed to new topics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviews own decisions toward improving patient care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilitates learning of others (tumor board presentations and one-one interactions with residents and medical students)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communication/Interpersonal Skills</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently courteous and receptive to medical specialty staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently participates cooperatively in interdisciplinary rounds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Professionalism</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>-Altruism/Empathy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently attentive to details of patient comfort and delivery of care (meds for pain control; renewing meds; resuming diet after tests)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accepts inconvenience when necessary to meet the needs of the patient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>-Respect</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently courteous and receptive to nursing, secretarial, and allied health staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>-Responsibility</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently responds in a timely manner when paged or called</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently follows through on cross cover issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>-Integrity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains composure during stressful/crisis situations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Systems Based Practice</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands the health care interdisciplinary team and uses individuals strengths of the team well</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocates for patients within the health care system (arranges scans same day when possible, requests scan and pathology results so as to inform patients and families as expediently as possible)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Pediatric Hematology Oncology Fellowship  
Evaluation of fellows by allied health services groups  
(Secretarial and Clinical Research Assistants)

Fellow: ______________________________  Date: _________________
Evaluator (optional): _________________________ Role: _________________

The Center for Cancer and Blood Disorders expects its fellows to demonstrate the communication, interpersonal skills and professionalism that promote care delivered in the best interest of the patient. Please complete this evaluation based on your interactions with the above-named fellow. If you cannot comment on an item, please leave it blank. Please elaborate on “unacceptable” responses in the space provided below. We ask that you or your immediate supervisor discuss any significant concerns with the fellow privately before submitting this form. Please note that the fellow will not see your individual responses, but that they will see a summary of compiled responses from all nursing and allied health staff.

Comments:
Please provide specific comments to substantiate any “unacceptable” response.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Do you have any additional concerns regarding this fellow’s communication, interpersonal, or professionalism skills?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Please provide information if this fellow has consistently performed in an outstanding manner.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
<table>
<thead>
<tr>
<th>Category</th>
<th>Outstanding</th>
<th>Very Good</th>
<th>Good</th>
<th>Acceptable</th>
<th>Unacceptable*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently demonstrates care and respect for patients and health care team</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Works well with interdisciplinary team</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Practice-Based Learning &amp; Improvement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analyzes own practice for areas to improve</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses information technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilitates learning of others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communication/Interpersonal Skills</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently demonstrates willingness to listen to allied staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently keeps allied staff informed of changes in the care plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently writes orders that are clear and legible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently participates cooperatively in tumor board</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Professionalism</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>-Respect</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently courteous and receptive to nursing and allied health staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>-Responsibility</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently responds in a timely manner when paged or called</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently follows through on cross cover issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>-Integrity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains composure during stressful/crisis situations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Systems Based Practice</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands the health care interdisciplinary team and uses individuals strengths of the team well</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of practice and delivery systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocates for patients within the health care system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Suggestions:
- Analyzes own practice – re-addresses roadmaps and seeks input from CRA and secretarial team in designing treatment plans and follows up scheduling needs for patients
- Uses information technology – accesses patient scheduling information on web and in weekly e-mails; accesses protocol information on COG website as appropriate
- Knowledge of practice and delivery systems – knows who to ask for what and seeks out the appropriate person
- Advocates for patients – works with scheduling for patients ease; works with CRA staff to make sure patients have the opportunity to participate in clinical studies, etc
Dear Parents of____________________,

My name is Dr. Michael Henry, and I am one of the hematologists/oncologists at Phoenix Children’s Hospital. It is very likely that I have met you personally; however, you may not be aware that I am the Director of our Pediatric Hematology/Oncology Fellowship Training Program. Fellows are qualified and trained pediatricians who choose to spend three further years in a subspecialty training program called a fellowship. Our fellows are training to become pediatric hematologists/oncologists. As I am sure you do know the doctor that takes care of you on a regular basis, Dr. ________ is a fellow in our program. Since it is very important for all physicians to be certain that we provide the highest possible standard of care to our patients, it is important that we teach this high standard to our trainees.

Therefore, I would like to ask your opinion about Dr. ________, and how he/she has performed using the evaluation enclosed with this letter. The questions asked on this form are very general, but they emphasize the importance of respect for patients and their families, respect for the privacy of information, and the caring aspects that we all should be demonstrating as physicians in the Center for Cancer and Blood Disorders at Phoenix Children’s Hospital.

Please be assured that your comments will not be made known in any way that would identify you to Dr. ________. All of the comments will be seen only by my administrative assistant and me. They will be summarized, and the individual evaluation forms will be destroyed. The goal is not to identify individual families with individual critique, but to begin to develop an overall impression of your physician’s quality as a doctor. Therefore, if you would please take five minutes to complete the evaluation form included and return it to us in the stamped, addressed envelope, I would be extremely grateful. Thank you for helping us to continue to maintain the highest quality of care for our patients and their families.

Most Sincerely Yours,

Michael M. Henry, MD
Director of Pediatric Hematology/Oncology Fellowship Training Program
Assistant Professor of Clinical Pediatrics, University of Arizona
Center for Cancer and Blood Disorders
Phoenix Children's Hospital
Pediatric Hematology/Oncology Fellowship
PATIENT QUESTIONNAIRE

Fellow's Name__________________________  Date__________________________

Using the scale below, please mark the box that best gives your opinion of your doctor.

<table>
<thead>
<tr>
<th>HOW IS YOUR DOCTOR AT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Greeting you warmly; being friendly; calling you by your name</td>
</tr>
<tr>
<td>2. Showing respect and courtesy</td>
</tr>
<tr>
<td>3. Listening very carefully to what you said; not interrupting</td>
</tr>
<tr>
<td>4. Explaining things so that you could understand them</td>
</tr>
<tr>
<td>5. Letting you ask questions</td>
</tr>
<tr>
<td>6. Making it easy for you to talk with him/her</td>
</tr>
<tr>
<td>7. Making your child feel comfortable during exam</td>
</tr>
<tr>
<td>8. Clearly explaining treatment plans</td>
</tr>
<tr>
<td>9. Answering your questions well</td>
</tr>
<tr>
<td>10. Explaining what she/he was going to do for your child’s care</td>
</tr>
<tr>
<td>11. Telling you what he/she found on the exam, lab, x-ray or procedure</td>
</tr>
<tr>
<td>12. Explaining what you needed to know about your situation and what to expect next</td>
</tr>
<tr>
<td>13. Being thoughtful of your privacy</td>
</tr>
<tr>
<td>14. Helping you deal with your fears and worries</td>
</tr>
<tr>
<td>15. Communicating well with your family and friends</td>
</tr>
</tbody>
</table>

What did you like most about your doctor? __________________________________________

Is there anything your doctor could do better? __________________________________________
Estimados padres de __________:

Mi nombre es Dr. Michael Henry, y soy uno de los hematólogos/oncólogos de Phoenix Children’s Hospital. Es muy probable que ya nos conozcamos en persona, sin embargo, es posible que ustedes no sepan que soy el director de nuestro programa de capacitación médica en la especialidad de hematología y oncología pediátrica. Los médicos que participan en este programa son pediatras altamente capacitados y calificados que deciden pasar tres años más en un programa de capacitación que en inglés se llama “fellowship”. Nuestros participantes se preparan para convertirse en hematólogos/oncólogos pediátricos. Estoy seguro que ustedes conocen al doctor a cargo de su paciente, Dr(a) _________ quien participa en nuestro programa. Como es muy importante para todos los médicos asegurarnos de que brindamos la mejor atención y cuidado a nuestros pacientes, estamos comprometidos a enseñar estos valores a los médicos participantes en nuestro programa.

Por lo tanto, quiero pedirles su opinión acerca del/de la Dr(a) _________, y para eso les pido que llenen la evaluación adjunta. Las preguntas son muy generales, pero enfatizan la importancia del respeto a los pacientes y a sus familias, el respeto por la privacidad de la información, y por los aspectos de cuidado que todos nosotros como médicos del Centro del Cáncer y Trastornos Sanguíneos de Phoenix Children’s Hospital deberíamos tener.

Tengan la seguridad de que sus comentarios son confidenciales y que no habrá manera alguna de que el/la Dr(a) _________ sepa que pertenecen a ustedes. Únicamente mi asistente y yo tendremos acceso a sus comentarios. Se hará un resumen de los comentarios y los formularios de las evaluaciones individuales serán destruidos. El objetivo no es identificar una familia en particular con un comentario en particular, sino desarrollar una opinión general sobre la calidad de su médico. Por lo tanto les pido que por favor dediquen 5 minutos para llenar el formulario y que lo regresen en el sobre con envío pagado que viene incluido. Les estaré muy agradecido. Muchas gracias por ayudarnos a mantener la más alta calidad en el cuidado de nuestros pacientes y de sus familias.

Muy atentamente,

Dr. Michael M. Henry
Director del Programa de Capacitación Médica en Hematología y Oncología Pediátrica
Profesor Asistente de Pediatría Clínica, Universidad de Arizona
Centro del Cáncer y Trastornos Sanguíneos
Phoenix Children’s Hospital
CUESTIONARIO PARA PACIENTES
Sobre Becarios de Hematología y Oncología Pediátrica

Nombre del Médico Becario_____________________________   Fecha___________________________

Utilizando la escala a continuación, favor de marcar la respuesta que mejor exprese su opinión acerca de su médico.

¿QUÉ OPINA SOBRE SU MÉDICO EN LO SIGUIENTE?

<table>
<thead>
<tr>
<th></th>
<th>Excelente</th>
<th>Muy Bueno</th>
<th>Bueno</th>
<th>Bueno</th>
<th>Capaz</th>
<th>Pobre</th>
<th>No puede Ud. Evaluar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Le saluda amablemente, le es amigable, le llama por su nombre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Le demuestra respeto y cortesía</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Le escucha atentamente cuando Usted le habla, No le interrumpe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Le explica las cosas de tal manera que las pueda comprender Usted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Le permite que haga preguntas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Le hace fácil conversar con él/ella</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Hace que su hijo(a) se sienta cómodo(a) durante la revisión</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Le explica claramente los planes de tratamiento</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Le responde bien a sus preguntas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Le explica qué va a hacer para cuidar a su hijo(a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Le informa sobre los resultados de las revisiones, los análisis, las radiografía o los procedimientos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Le explica lo que debe saber Usted acerca de la situación y qué debe esperar más adelante</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Toma en cuenta su privacidad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Le ayuda a enfrentar sus preocupaciones y temores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Se comunica bien con sus familiares y amigos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¿Qué es lo que mas le gustó de su doctor(a)? ___________________________________________________________

¿De qué forma (si hay alguna) podría su doctor(a) mejorar? ________________________________________________
Pediatric Hematology Oncology Fellowship
Evaluation of Program by the Fellows

Date: _________________

Comments:
Please provide specific comments to substantiate any “unsatisfactory” response.
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

Please elaborate on the Training Program’s strengths.
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

Please elaborate on the Training Program’s weaknesses.
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

(Optional)
Fellow (name/signature): __________________________ Date: _________________
<table>
<thead>
<tr>
<th></th>
<th>Unsatisfactory</th>
<th>Marginal</th>
<th>Adequate</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clinical Faculty</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gives appropriate level of guidance while allowing increasing autonomy for the fellows</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gives feedback respectfully, clearly, and in a timely fashion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicates expectations clearly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attends didactic conferences and participates regularly and consistently</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assists fellows in reaching their clinical training objectives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assists fellows in reaching their research training objectives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enforces the ACGME-imposed duty hour restrictions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Research Faculty</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gives appropriate level of guidance while allowing increasing autonomy for the fellows</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gives feedback respectfully, clearly, and in a timely fashion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicates expectations clearly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attends didactic conferences and participates regularly and consistently</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assists fellows in reaching their clinical training objectives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assists fellows in reaching their research training objectives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enforces the ACGME-imposed duty hour restrictions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Inpatient Clinical Rotation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides adequate balance of time between hematology/oncology and stem cell transplantation services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is a useful learning experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides a good mix of patients with both hematology and oncology disorders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides opportunity for fellows to teach residents, medical students, and nurses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fosters mutual respect and teamwork between fellows, nursing, and allied health staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides adequate opportunity to perform procedures (lumbar puncture, bone marrow aspirate/biopsy, bone marrow harvest)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides adequate exposure to patients receiving allogeneic stem cell transplants and management for sequelae, including graft-versus-host disease</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Outpatient Clinical Rotation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides adequate balance of time between hematology/oncology and stem cell transplantation services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is a useful learning experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides a good mix of patients with both hematology and oncology disorders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides opportunity for fellows to teach residents, medical students, and nurses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fosters mutual respect and teamwork between fellows, nursing, and allied health staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides adequate opportunity to perform procedures (lumbar puncture, bone marrow aspirate/biopsy)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides a continuity experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Immunodeficiency Rotation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides adequate exposure to patients with both congenital and acquired immunodeficiencies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allows the fellow to perform both new inpatient and outpatient consultations, as well as follow-up care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is a useful learning experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cytogenetics Rotation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>Provides adequate exposure to cell culture and rudimentary cytogenetics laboratory techniques</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides teaching in interpretation of karyotypes and FISH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is a useful learning experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Laboratory Medicine Rotation</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides adequate exposure to a wide variety of hematology laboratory techniques</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides special teaching in interpretation of immunocytochemistry, immunohistochemistry, electrophoresis, and special coagulation testing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides teaching in interpretation of peripheral blood smears and bone marrow aspirates for a variety of hematologic and oncologic conditions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is a useful learning experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Transfusion Medicine and Blood Banking Rotation</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides adequate exposure to transfusion medicine and apheresis techniques</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides adequate exposure to techniques of whole blood collection and blood component preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides adequate exposure to blood bank techniques, regulations, and bench laboratory testing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is a useful learning experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Radiation Oncology Rotation</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides a good overview of the planning and implementation of radiation therapy for a variety of disorders</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allows the fellow to see patients in the outpatient setting as well as during inpatient consultations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is a useful learning experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Miscellaneous</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I am heard by the faculty when there is an issue to discuss</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The evaluations that are performed about me are complete and fair</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My presence is valued by the faculty</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I receive an adequate balance between supervision and autonomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I receive adequate feedback</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am being well trained to competently manage patients with hematologic and oncologic disorders</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both clinical and research faculty attend and support academic conferences</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCH and TGEN are well integrated and are working together to provide comprehensive care for patients, translational research with clinical care applications, and research training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Scholarship Oversight Committee helps me to pursue my research goals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OVERALL RATING:** Unsatisfactory Marginal Adequate Good Excellent
Pediatric Hematology Oncology Fellowship
Evaluation of Faculty by the Fellows

Attending: ______________________________  Date: _________________

Comments:
Please provide specific comments to substantiate any “unsatisfactory” response.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Do you have any additional concerns regarding this attending’s communication, interpersonal,
or professionalism skills?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Please elaborate on this attending’s strengths.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Please elaborate on this attending’s weaknesses.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

(Optional)
Fellow (name/signature):  __________________________  Date: _________________
<table>
<thead>
<tr>
<th>Category</th>
<th>Unsatisfactory</th>
<th>Marginal</th>
<th>Adequate</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teaching Ability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presents new ideas in a clear and concise manner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gives guidance and feedback respectfully and clearly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicates expectations clearly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates sound clinical judgment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respects the patients’ &amp; families’ privacy and autonomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Commitment to Teaching</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assists fellows in reaching their training objectives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encourages independent decision making using an evidence-based approach</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment to scholarship; attendance and participation in didactics/conferences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pursues academic research in areas of interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presents challenging and provoking ideas and questions to stimulate discussions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Practice based learning &amp; improvement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognizes self-limitations and accepts responsibility for errors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses information technology to optimize learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communication/Interpersonal Skills</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serves as an effective team leader</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establishes a therapeutic relationship with families</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates willingness to listen to allied staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains information to patients and family using clear, understandable terms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keeps patients, families, nursing and allied staff informed of changes in the care plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Professionalism</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attentive to details of patient comfort &amp; delivery of care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accepts inconvenience to meet the needs of the patient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respects patient privacy when conducting examinations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently courteous and receptive to nursing and allied health staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains composure during stressful/crisis situations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates honesty/integrity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates high standards of ethical and moral behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Systems Based Practice</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates cost-awareness and risk-benefit analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocates for quality care for patients within the health care system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promotes health and preventive practice education with patients and families</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OVERALL RATING:** Unsatisfactory Marginal Adequate Good Excellent

Methods of assessment include (check all that apply):
- Direct observation
- Participation in didactics/conferences
- Experience on-call (phone)
- Informal teaching
Pediatric Hematology Oncology Fellowship
Hematology/Oncology Fellow Self-Evaluation Form

Fellow: ______________________________  Date: ________________

Rotation: _____________________________  Length: _______________

Instructions to fellows: Please complete this self-evaluation and discuss it with your direct faculty supervisor at the end of your rotation. Be sure that both you and your supervisor have signed the evaluation before submitting it to the program director.

Comments:
Please provide specific comments to substantiate any “unsatisfactory” or “marginal” response.
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

Do you have any additional concerns regarding your communication, interpersonal, or professionalism skills?
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

Please provide information if you think that you have consistently performed in an outstanding manner.
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

Please elaborate on any other thoughts you may have regarding your performance in this rotation.
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

Faculty (print name): __________________________  Date: ________________________
Faculty (signature):  __________________________ Date: ________________________
Fellow (signature):  __________________________ Date: ________________________
<table>
<thead>
<tr>
<th>Patient care</th>
<th>Unsatisfactory</th>
<th>Marginal</th>
<th>Needs improvement</th>
<th>Good</th>
<th>Highly Competent</th>
</tr>
</thead>
<tbody>
<tr>
<td>History Taking/Interviewing skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Exam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informed consent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnostic &amp; screening studies, including</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>interpretation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synthesis of clinical data &amp; differential</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>diagnoses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develops &amp; carries out management plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prescribes &amp; performs essential procedures well</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(bone marrow aspirate/biopsy, lumbar puncture)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counsels &amp; educates patients &amp; families,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>providing information to understand illness and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>prevent disease</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates sound clinical judgment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respects the patients' &amp; families' privacy and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>autonomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Medical Knowledge</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possesses appropriate fund of knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applies knowledge of basic and clinical sciences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to development of care plans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment to scholarship; attendance and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>participation in didactics/conferences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Practice-Based Learning &amp; Improvement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analyzes own practice to improve performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actively participates in teaching other health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>care professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accepts constructive criticism gracefully</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates feedback into improvement activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses information technology to optimize learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Communication/Interpersonal Skills</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establishes a therapeutic relationship with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>patients and families</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates willingness to listen to nursing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and allied staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explains information to patients and family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>using clear, understandable terms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keeps patients, families, nursing and allied</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>staff informed of changes in the care plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writes orders that are clear and legible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains comprehensive, timely, and legible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>medical records</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently participates cooperatively in</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>interdisciplinary rounds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicates effectively with other physicians</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professionalism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td><strong>-Altruism/Empathy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently attentive to details of patient comfort</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and delivery of care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accepts inconvenience when necessary to meet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the needs of the patient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>-Respect</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently respects patient privacy when</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>conducting examinations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides care sensitive to patient’s age, gender,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>disabilities, cultural/ethnic diversity and sexual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>orientation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently courteous and receptive to nursing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and allied health staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>-Responsibility</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates consistent and excellent work ethic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently responds in a timely manner when</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>paged or called</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently follows through on cross cover issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates dependability/commitment (patient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>follow-up, continuity of care)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>-Integrity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains composure during stressful/crisis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>situations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates honesty/integrity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates high standards of ethical and moral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Systems Based Practice</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands interaction of various health care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>delivery systems and works effectively to optimize</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>utilization of outside resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporates cost-awareness and risk-benefit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands and works well to transition patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>from in-patient care to out-patient based care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocates for quality care for patients within the</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>health care system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promotes health and preventive practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>education with patients and families</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participates in Quality Insurance methods and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>assists in developing systems improvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OVERALL RATING:** Unsatisfactory Marginal Needs Improvement Good Highly Competent
1. What are the strengths of the program? __________________________________________________

________________________________________________

________________________________________________

________________________________________________

2. What are the weaknesses of the program?

________________________________________________

________________________________________________

________________________________________________

3. Comments/suggestions for the program:

__________________________________________________________________________________

__________________________________________________________________________________

__________________________________________________________________________________

4. Overall Rating for Program:

<table>
<thead>
<tr>
<th>Un satisfactory</th>
<th>Average</th>
<th>Outstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

-28-
<table>
<thead>
<tr>
<th>Category</th>
<th>Rating Options</th>
<th>Plan of action for the next month:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpersonal and Communication Skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professionalism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Based Practice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice Based Learning and Improvement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scholarly Activity/Research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Clinical Competence</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fellow: ___________________________  PGY: _______  Date: _________
Advisor: __________________________
# Scholarship Oversight Committee Review

**Fellow:** __________________________

**Program:** __________________________

**Date:** __________________________

**PGY Level:** _______

**Members Present:**
- [ ]
- [ ]
- [ ]

<table>
<thead>
<tr>
<th>Research Projects:</th>
<th>1st Year</th>
<th>2nd Year</th>
<th>3rd Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Proposal</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>IRB Submission</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Patient Enrollment</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Data Collection</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

**Comments:**

- [ ]
- [ ]
- [ ]

**2nd Year**

- [ ] Data Analysis
- [ ] Manuscript Preparation
- [ ] Presentations (Regional/National)

**3rd Year**

- [ ] Data Analysis
- [ ] Manuscript Preparation
- [ ] Presentations (Regional/National)

**Comments:**

- [ ]
- [ ]
- [ ]
Date: _______________________

Fellow: _______________  Year of Training: ____________

Advisor: ____________________

Procedures:

Procedure log up to date:   Yes___  No___

Deficiencies in procedures:
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

Plan of action: ____________________________________________________
______________________________________________________________________
______________________________________________________________________

Conference attendance >75%:   Yes ___ No ___
If no why: __________________________________________________________

Advisor Meeting

Meeting done with advisor on monthly basis:   Yes ___ No ___
If no why: _________________________________________________________

ILP

Goals:
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

In-Training Exam

Score: ________
How does score compare to year-related peers? _________________________
Plan of action: ______________________________________________________
COMPETENCIES:

Patient Care (Does the fellow provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health?):
   Satisfactory   Not Satisfactory

Plan of action for the next 3 months:

______________________________________________________________________

______________________________________________________________________

Medical Knowledge (Does the fellow demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care?)
Satisfactory   Not Satisfactory

Plan of action for the next 3 months:

______________________________________________________________________

______________________________________________________________________

Interpersonal and Communication Skills  Satisfactory  Not Satisfactory

Does the fellow:
(1) Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds? Yes____ No____
(2) Communicate effectively with physicians, other health professionals, and health related agencies? Yes____ No____
(3) Work effectively as a member or leader of a health care team or other professional group? Yes____ No____
(4) Act in a consultative role to other physicians and health professionals? Yes____ No____
(5) Maintain comprehensive, timely, and legible medical records? Yes____ No____

Plan of action for the next 3 months:

______________________________________________________________________

______________________________________________________________________

Professionalism  Satisfactory   Not Satisfactory

Does the fellow demonstrate?
(1) Compassion, integrity, and respect for others?
   Yes____ No____
(2) Responsiveness to patient needs that supersedes self-interest?    Yes____ No____
(3) Respect for patient privacy and autonomy?    Yes____ No____
(4) Accountability to patients, society and the profession?    Yes____ No____
(5) Sensitivity and responsiveness to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation?    Yes____ No____

Plan of action for the next 3 months:

______________________________________________________________________

______________________________________________________________________
System Based Practice  Satisfactory  Not Satisfactory
Does the fellow:
(1) Work effectively in various health care delivery settings and systems relevant to emergency medicine? Yes___ No___
(2) Coordinate patient care within the health care system relevant to hematology/oncology? Yes___ No___
(3) Incorporate considerations of cost awareness and risk-benefit analysis in patient care as appropriate? Yes___ No___
(4) Advocate for quality patient care and optimal patient care systems? Yes___ No___
(5) Work in interprofessional teams to enhance patient safety and improve patient care quality? Yes___ No___
(6) Participate in identifying system errors and implementing potential systems solutions? Yes___ No___

Plan of action for the next 3 months:
______________________________________________________________________
______________________________________________________________________

Practice Based Learning and Improvement  Satisfactory  Not Satisfactory

Plan of action for the next 3 months:
______________________________________________________________________
______________________________________________________________________

Scholarly Activity/Research  Satisfactory  Not Satisfactory

Plan of action for the next 3 months:
______________________________________________________________________
______________________________________________________________________

<table>
<thead>
<tr>
<th>OVERALL PERFORMANCE</th>
<th>Below Expectations</th>
<th>Meets Expectations</th>
<th>Exceed Expectations</th>
<th>Outstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMENTARY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STRENGTHS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WEAKNESSES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ADDITIONAL COMMENTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DATE</strong></td>
<td><strong>Faculty Signature</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DATE</strong></td>
<td><strong>Fellow Signature</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PHOENIX CHILDREN’S HOSPITAL  
PEDIATRIC HEMATOLOGY/ONCOLOGY PROGRAM  
EVALUATION OF EXITING FELLOW  

Name:  

Date of Hire: _________________________  Last Date of Employment_______________________  

THE PROFESSIONAL SKILLS OF THIS PHYSICIAN ARE EVALUATED AS FOLLOWS:  

<table>
<thead>
<tr>
<th>Skill</th>
<th>Satisfactory</th>
<th>Un satisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamental Knowledge of Medicine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fundamental Knowledge of Specialty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical Judgment (ability to plan and execute treatment)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnostic Ability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physician-Patient Relationship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Record Currency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of Medical Records</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relations with Technical and Administrative Personnel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Judgment in Exercising Responsibility in Relationship to Competency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical of Procedure Skills as Related to Specialty</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you answered UNSATISFACTORY to any of the above statements, please provide an explanation on a separate piece of paper and attach it to this evaluation form. 

RESPOND TO THE QUESTIONS BELOW IN REGARD TO THIS PHYSICIAN:  

<table>
<thead>
<tr>
<th>Question</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>While participating in your program, are you aware that the fellow has suffered from any physical or mental health problem, which would affect performance?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>While participating in your program has the fellow ever shown signs of any drug or alcohol problems?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>While participating in your program, has the fellow ever been, or is currently involved in, any disciplinary proceedings?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>While participating in your program are you aware of any malpractice action instituted, in process or pending, against the fellow?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>While participating in your program are you aware of the fellow not adhering to the Rules and Regulations of the Medical Staff and not following through with delegated staff duties?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>While participating in your program are you aware of any personal or professional circumstances that would indicate that the privileges of the fellow should be limited, postponed or denied?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>While participating in your program was there any breaks in training or time-off or extension of training?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you answered YES to any of the above questions, please provide an Explanation on a separate piece of paper and attach it to this evaluation form. 

Did the fellow receive full credit for this training?  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

If you answered NO to the above question, please provide an explanation on a separate piece of paper and attach it to this evaluation form. 

Successfully completed ___________ months of a ____________ month fellowship. 

If the fellow is leaving the program before completion, please attach the transfer letter and a list of the rotations that the fellow successfully completed.  

<table>
<thead>
<tr>
<th>The fellow has demonstrated sufficient competencies to enter practice without supervision.</th>
<th>YES</th>
<th>No</th>
</tr>
</thead>
</table>

Fellow’s Signature  Date  Program Director’s Signature  Date  

UPDATED: 01/07/11
Center for Cancer and Blood Disorders

Semi-Annual Provider Evaluation

Provider:

Date:

PCH Employee #

FTE:

PCH Protected Time:

Clinical RVU Goal for current year:

Individual Expectations:

Professionalism:

Teamwork:

Adherence to Consensus Clinical Standards:

Timely Completion of Health Records:

Regular Communication with Referring PCPs and Consultants:

Deviations from Individual Expectations:

Complaints:

Concerns:

Remedial Actions:

Goals:

Productivity:

Clinical/RVU:

Program Development:

Teaching:
Academic Pursuits:

Invited Lectures:

Committees:

Other:

Research:

Publications:

Book Chapters:

Abstracts:

Oral Presentations:

Published Articles:

Peer Reviewed / Major Journal:

Other Journals:

Provider Signature: _______________________________  Date: _______

Division Chief Signature: ___________________________  Date: _______