

PROGRAM LETTER OF AGREEMENT GRADUATE MEDICAL EDUCATION

This Program Letter of Agreement is used to implement the AAMC Uniform Terms and Conditions which address important legal and business terms between the Sponsoring Institution and the Participating Site. The Uniform Terms and Conditions include provisions of the administration of the residency program; resident salaries and benefits; immunizations, criminal background checks, licensure, access to resources, resident supervision and evaluations, insurance coverage, HIPAA and other important issues. This Program Letter of Agreement should not be signed before reading and fully understanding the AAMC Uniform Terms and Conditions.

This Program Letter of Agreement is the residency training affiliation agreement between the Sponsoring Institution and the Participating Site with respect to a clinical training experience for the Sponsoring Institution's assigned residents, and the agreement of the parties to abide by all terms and conditions of the AAMC Uniform Terms and Conditions [dated January 22, 2018] which is hereby incorporated by reference, without modification or exception except as specified below. Any conflict between this Program Letter of Agreement and the AAMC Uniform Terms and Conditions are to be interpreted in favor of this Program Letter of Agreement.

This Program Letter of Agreement is effective from August 1, 2022 and will remain in effect for five years or until updated or changed by the Sponsoring Institution and the Participating Site or terminated by either party.

1. Parties

Sponsoring Institution: Marshall University School of Medicine

Participating Site: Ohio State University Wexner Medical Center

2. Persons Responsible for Education and Supervision

Program Director at Sponsoring Institution: Maria Tria Tirona, MD

Site Director at Participating Site: Beth Christian, MD

The above-named people are responsible for the education and supervision of the residents while rotating at the Participating Site.

3. Responsibilities

The faculty at Participating Site must provide appropriate supervision of residents in patient care activities and maintain a learning environment conducive to educating the residents in the competency areas identified by ACGME or other applicable accrediting bodies. Supervision must provide safe and effective care to patients; ensure development of skills, knowledge, and attitudes required to enter the unsupervised practice of medicine and establish a foundation for continued professional growth. The faculty must evaluate resident performance in a timely manner during each rotation or similar educational assignment and document this evaluation at the completion of the assignment.

4. Goals and Objectives of the Educational Experiences

The goals and objectives of the educational experiences have been developed according to ACGME Residency Program Requirements or other applicable accrediting bodies, and are delineated in **Exhibit B**, attached hereto and incorporated herein.

The Program Director, Site Director and the program faculty at the Participating Site are together responsible for the day-to-day activities of the residents during the course of the educational experiences at the Participating Site in furtherance of the goals and objectives.

5. Policies, Rules and Regulations that Govern Resident Education

Residents will be under the general direction of their Sponsoring Institution Program's Policy and Procedure Manual regarding educational matters as well the Participating Site's policies, rules and regulations regarding patient care activities.


6. Financial Responsibility

Sponsoring Institution Responsible Financially

Sponsoring Institution or its affiliate as otherwise described under Section 7 herein shall continue to employ the residents and is responsible for the payment of any salary and compensation to the residents, as well as providing or requiring health insurance coverage and workers compensation coverage, and withholding all applicable taxes. Sponsoring Institution understands that its residents will not be covered by or entitled to any social security, unemployment compensation, retirement, pension and/or any other benefits programs or workers' compensation program offered or provided by Participating Site, and no resident shall have any right, title or claim to participate in the same.

The individuals executing this Program Letter of Agreement are authorized to sign on behalf of their institutions and certify that their institutions have accepted the AAMC Uniform Terms and Conditions for Program Letters of Agreement and further agree to comply with its terms except as noted above.

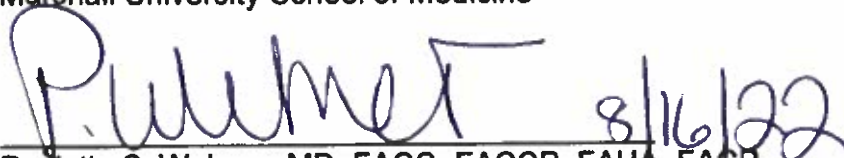
**The Ohio State University Wexner Medical
Center 410 W. 10th Ave.
125 Doan Hall
Columbus, OH 43210**


9/14/22
Beth Christian, MD
Site Director
Institutional Official
Pulmonary Critical Care


Scott Holliday, MD
Associate Dean/Designated

**Marshall University School of Medicine
1600 Medical Center Drive
Huntington, WV 25701**


8/15/22
Maria Tria Tirona, M.D., FACP
Program Director
Hematology/Oncology Fellowship
Marshall University School of Medicine


8/16/22
Paulette S. Wehner, MD, FACC, FACCP, FAHA, FACP
Professor of Internal Medicine and Cardiology
Vice Dean for GME
Designated Institutional Official
Marshall University School of Medicine

7. Other Modifications or Exceptions to the AAMC Uniform Residency Training Terms and Conditions

The AAMC Uniform Terms and Conditions [dated January 22, 2018] are hereby incorporated by reference, as modified by the OSU standard terms and conditions addendum attached hereto as **Exhibit A** and incorporated herein.

EXHIBIT A

THE OHIO STATE UNIVERSITY WEXNER MEDICAL CENTER (OSU) ADDENDUM TO AAMC PROGRAM LETTER OF AGREEMENT

This Addendum is attached to and made a part of the Program Letter of Agreement between the Sponsoring Institution and Participating Site for the purpose of giving notice of obligations and operation of law. This Addendum and the Program Letter of Agreement are collectively termed the Agreement for these purposes. Sponsoring Institution and Participating Site are collectively referred to as "Parties" or individually as "Party".

WHEREAS, Sponsoring Institution and Participating Site desire to enter into a Program Letter of Agreement incorporating the Association of American Medical Colleges (AAMC) Uniform Terms and Conditions;

WHEREAS, the Parties agree this Addendum is incorporated into the Program Letter of Agreement to modify or supplement the AAMC Uniform Terms and Conditions;

WHEREAS, the Parties desire a relationship which enhances educational goals and educational experiences for all participating residents.

NOW, THEREFORE, in consideration of the mutual covenants and agreements contained herein, the Parties agree as follows:

1. **Governing Law.** The Agreement has been executed and is to be construed and enforced in accordance with Ohio law.
2. **Claims, Litigation and Insurance Coverage:**
 - A. In the event that either party's Resident becomes a defendant in a lawsuit or claim alleging the medical negligence of the Resident while in the program, the parties will cooperate to assert statutory immunity as basis for dismissal of an OSU Resident and will cooperate to resolve the claim or defend the action so as to minimize the potential liability and negative impact upon the teaching programs and the individual Residents. This provision does not require that defensible claims be settled if a party desires to litigate the matter. In any settlement by either party involving a Resident both parties will use their best efforts to obtain a release of liability for both the Resident and the Sponsoring Institution prior to the dismissal of the claim.
 - B. **Malpractice Coverage and legal defense for Residents will be the responsibility of the Party that employs the Resident and will be effective during the complete term of the rotation at the institution. No private arrangements for coverage between Residents shall affect this Agreement. No malpractice coverage for informal arrangements will be provided for claims arising during an unauthorized coverage. Residents of both parties involved in a claim or litigation are required to cooperate in the investigation and defense of the claim or litigation as a condition of their malpractice coverage. This paragraph shall be interpreted to mean that:**
 - 1) The Party that employs the Resident shall have exclusive control of the defense of any claims related to the interests of the Resident; and
 - 2) Each party to this Agreement shall be responsible for any liability, claim, loss, damage or expenses, including without limitation, reasonable attorney fees, arising from its negligent acts or omissions in connection with its performance of this Agreement, or its failure to comply with the terms of this Agreement, as determined by a court of competent jurisdiction.
 - 3) The parties shall advise and encourage Residents to cooperate with any such request for investigation; and
 - 4) The parties shall immediately, but no later than 48 hours, advise the Resident's employer party of any investigation involving the Resident; and

- 5) When an OSU Resident on rotation pursuant to this Agreement is named as a defendant in a malpractice action, OSU may, at its sole expense, plead the statutory immunity of any OSU Resident.
- 6) The Attorney General of the State of Ohio has the authority to manage and control all litigation involving OSU and must approve (i) all settlements of claims asserted against OSU, including the language to be used in the settlement and release documents, and (ii) any external legal counsel representing the interests of OSU in any litigation, regardless of whether such counsel are retained by OSU directly or by a third party on behalf of OSU.

C. Insurance. Each Party will maintain, at a minimum, the following types and amounts of insurance or self-insurance coverage:

- 1) Workers' Compensation: as required by State law;
- 2) Employers Liability (Stop Gap for Ohio): \$1,000,000 to any one person;
- 3) Commercial General Liability:
 - \$1,000,000 Each Occurrence (Bodily Injury & Property Damage)
 - \$2,000,000 General Aggregate
 - \$1,000,000 Personal Injury and Advertising Injury
- 4) Health Care Professional Liability:
 - \$1,000,000 Each Claim
 - \$3,000,000 Annual Aggregate;

Coverage shall be provided on an occurrence form. If written on a claims-made basis, appropriate extended reporting period or "tail" coverage must be continuously provided to protect participating Residents following completion of their service or such other periods of time as are mutually determined by the parties to be appropriate under applicable statutes of limitations in Ohio law. Coverage is limited to services provided by Residents within scope of their employment.

Each party shall provide evidence of insurance upon written request to demonstrate compliance with the insurance requirements.

3. **Dispute Resolution.** If there is an issue or dispute between or among the Parties regarding this Agreement, the Parties shall enter into good faith discussions and use their best efforts to negotiate a resolution to such dispute. The first level of negotiation should be between the Program Director and Site Director at each institution. Should these negotiations fail to reach a resolution, the second level of negotiation should be between the Designated Institutional Officials at each institution. Should these negotiations fail to reach a resolution, the negotiations would escalate to include, but need not be limited to, the Chief Medical Officers of the Sponsoring and Participating Institutions. If the parties are unable to reach a resolution within 60 days of beginning negotiations, then the disputed matter may be submitted to mediation pursuant to the American Health Lawyers Association Alternative Dispute Resolution Service Rules of Procedure for Mediation. The mediation shall be in Columbus, Ohio. Each Party shall be responsible for its own costs and professional fees associated with the mediation.
4. **Conflict of Terms.** In the event of a conflict, the terms of this Addendum shall supersede and be controlling over any terms contained in the Program Letter of Agreement or AAMC Terms and Conditions.
5. This Agreement shall not be construed to create any benefits for or rights in any person or entity, including patients, residents, faculty, employees and their representatives.

- stem cell transplants including intrathecal chemotherapy administration, bone marrow biopsy, and ommaya reservoir access.
- (7). Consult and help care for BMT patients that are transferred to surgical services or intensive care units. The fellow will write progress notes for patients transferred to these services.
- (8). Develop proficiency in the discussion of indications for transplantation, therapeutic strategies, clinical trials and end-of-life issues with patients and their families.
- (9). Develop experience regarding indications for CAR-T and NK cell therapy, management of complications of these therapies, and discussion of these topics with patients and family members.
- e. The fellow will also primarily be responsible for communicating with patient's outpatient attending at the time of discharge and any unexpected serious events (e.g. death/intubation). Such communication should be done by email or direct conversation, as appropriate.
 - f. The fellow will not serve as the primary care taker for patients on the service, with the exception of weekends and holidays when NP/PA coverage is limited or not available. On the weekends or holidays, the BMT fellow will split weekend coverage of the BMT service; dividing the necessary patient care duties with the BMT attending and NP/Pas. Fellows are primarily responsible for documenting progress notes on assigned patients. The NP/PA typically will take care of order writing and other patient care tasks for patients assigned to fellows on these days. During the week, additional NP/PAs will be available (i.e. a float NP/PA) in the event that the service exceeds the capacity of the existing NP/PAs.
 - g. Acutely ill admissions (for example, patients requiring apheresis, patients with disseminated intravascular coagulation, or patients with acute GVHD) that arrive at night with the exception of the fellow's day off may necessitate in house evaluation by the fellow, upon discussion with service attending – any needed in house evaluations will be documented in the fellow's weekly duty hours.
 - h. With the exception of their day off each week, a fellow will be available on pager for home call to receive nursing questions regarding evening chemotherapy administration (i.e. stem cell infusion reactions, ATG reactions). The attending will supervise and provide assistance to the fellow with these calls.
 - i. Each fellow will have one day per week off (to be arranged by fellow and occur during the week (M-F) and not to coincide with the service attending's clinic day if possible).
 - j. Fellows will be required to attend one half-day of continuity clinic per week.
 - k. Document (via electronic MedHub system) duty hours weekly, not to exceed 80 hours per week. These hours will consist of time spent in the hospital for BMT duties (M-F and weekends). Home call will not be included in the duty hour calculations.
 - l. The fellow will also review and complete the didactic curriculum modules (except those that pertain directly to pediatric patients) that are located on the Be the Match Website. <https://bethematchclinical.org/Resources-and-Education/Education-Courses-and-Events/Curriculum>. These modules provide an excellent orientation to BMT and every attempt should be made to review these as early as possible in the rotation.. There are also very helpful education and patient care resources on the department website. This can be accessed by **navigating to OneSource→Depts./Sites→Blood and Marrow Transplant Program.** m. The fellow will be assigned triage call duty as noted on the schedule

EXHIBIT B

GOALS AND OBJECTIVES

- I. Fellowship Requirements**
 - A. Hematology/Oncology Fellowship – 1 or 2 one-month BMT rotations
 - B. Hematology Fellowship – 1 or 2 one-month BMT rotations
 - C. Medical Oncology - 1 one-month BMT rotation

- II. Rationale - To provide the hematology/oncology fellow with inpatient experience in principles of, indications for, and complications of autologous and allogeneic (related and unrelated) stem cell transplantation in the treatment of hematological disorders and selected solid tumors or autoimmune diseases. To provide inpatient experience in the management of patients receiving Chimeric Antigen Receptor (CAR) T-Cell Therapy and other cellular therapies.**

- III. Fellow's responsibilities on the Bone Marrow Transplant (BMT) service**
 - a. One fellow will be assigned to the BMT Service. There may be more than one fellow at a given time if an OSU BMT fellow or visiting fellow is rotating on service.
 - b. Physically round on patients with the supervising attending. This typically begins anywhere between 7:30 am and 9 am depending on the attending. Participate in patient management rounds occurring Monday through Friday 10:30 am to 12:00 pm. Weekend team rounding time is variable.. On the weekdays, short evening rounds also will take place among team members to discuss the new admissions during the day as well as for updating team members about the significant events with service patients.
 - c. The fellow is also expected to participate in BMT census. There is a census meeting at 1:30pm on Mondays during which outpatients and priority admissions are discussed. The fellow is expected to listen in on this meeting. There is also a Friday checkout meeting from 4-5pm at which inpatient issues are discussed. Patients will be presented by APPs, but the fellow is expected to be present and participate as needed. These meetings are currently virtual Webex/Zoom meetings; fellow will be included in the list of attendees after contacting Alison Neal. The census process has recently changed, and there may be updates to this process from month to month.
 - d. The fellow should review expectations with attending during the first day of service. In general, the fellow on the BMT service will serve as a junior attending and is expected to:
 - (1). Provide medical supervision and advice to the physician extenders necessary for care of the patients on the service in conjunction with the attending.
 - (2). Write admission notes.
 - (3). Be aware of the diagnosis, management, and any complications of all patients on the service.
 - (4). Lead daily multidisciplinary/team management rounds with the supervising attending's direction.
 - (5). Develop proficiency in chemotherapy order writing, entering the chemotherapy orders for most patients on the service.
 - (6). Develop proficiency in procedures required for the care of patients receiving

that is posted to the shared drive. This includes receiving calls from the transfer center, OSU ER, outside physicians or OSU physicians in the division of Hematology. The fellow will suggest which service the patient will be admitted to and will notify the attending of receiving service of the impending admission regardless of acuity. The transfer center may also assign service coverage.

- n. When there are BMT patients in the MICU, whether they be admitted directly there or transferred from the BMT unit, the fellow will be responsible for meeting with MICU team to obtain an update as well as discuss transplant related issues.
- o. The fellow will be required to present one case at BMT M&M conference. The case is to be chosen and discussed with Dr. Ayman Saad and the attending physician prior to the conference.

IV. Goals and Objectives

- a. To provide patient oriented teaching regarding the indications for, diagnostic work-up (including radiographical and pathological assessment), therapeutic and supportive management, complications and natural history of autologous and allogeneic (related and unrelated), stem cell transplantation (including myeloablative and non-myeloablative approaches) in the treatment of hematological disorders and selected solid tumors or autoimmune diseases.
- b. To provide an education in HLA typing and HLA matched/mismatched and ABO mismatched transplantation.
- c. To provide patient oriented teaching regarding the use, dosing, and toxicities of chemotherapeutic agents, immunotherapy, immunosuppressants, and radiation therapy used to perform myeloablative and non-myeloablative stem cell transplantation.
- d. To provide an understanding of pathologic, molecular, and genetic assays including immunophenotyping, immunohistochemistry, flow cytometry, fluorescent in situ hybridization, cytogenetics, and molecular biology that are critical to the care of patients with hematological malignancies undergoing stem cell transplantation.
- e. To provide an education in the indications for stem cell transplantation, management of the neutropenic/immunocompromised patient, indications for use and toxicity of biologic agents and hematopoietic growth factors, management and complications of indwelling catheters, and psychosocial considerations, pain, and palliative care as applies to patients receiving bone marrow transplants.
- f. To provide an education in the benign hematology topics of transfusion medicine, management of hemostasis and thrombosis and coagulation factor replacement, indications for apheresis, and platelet, red cell, and white cell dysfunction or disorders in the setting of stem cell transplantation.
- g. To provide exposure to the use of clinical trials, novel agents, immunotherapies, and targeted therapies in stem cell transplantation and to provide training in enrollment of patients on these trials, informed consent discussions, and toxicity reporting via NCI-designated toxicity criteria.
- h. To provide instruction on the discussion of relapse, toxicities, end-of-life/palliative care with patients and their families who have received a stem cell transplant.
- i. To provide instruction and training in the techniques of bone marrow harvest, stem cell apheresis, bone marrow biopsy and aspiration and intrathecal chemotherapy

administration by lumbar puncture or ommaya reservoir access with a goal of developing fellow proficiency.

- j. To provide an education in the indications for chimeric T and NK cell therapy both as standard of care or clinical trials, management of toxicities, and coordination with consulting teams in the treatment of hematological disorders or solid cancers.

V. Technical/procedural skills

- a. Fellows should demonstrate competence in the performance of bone marrow aspiration and biopsy, lumbar puncture, intrathecal chemotherapy, and ommaya reservoir access.
- b. Fellows should demonstrate an understanding of HLA typing and selection of an appropriate stem cell donor as well as issues related graft versus host disease.
- c. Fellows should develop competence in the use of blood products, coagulation factor replacement, and supportive care of patients receiving stem cell transplants.
- d. Fellows should witness and participate in stem cell collection procedures via peripheral blood apheresis or bone marrow harvest and observe stem cell infusion of both autologous and allogeneic donors.
- e. Fellows should demonstrate competence in ordering of and toxicities of chemotherapy (combination regimens and single-agent therapy), immunotherapy, immunosuppression, and growth factors.
- f. Fellows should demonstrate competence in the indications and interpretations of radiographic imaging (including CT scan, X-ray, MRI, and PET scan) and response assessment using internationally accepted response criteria.
- g. Fellows should demonstrate competence in the indications for and management of central indwelling catheters.

VI. Personal Skills

- a. To understand the impact of stem cell transplantation and treatment-related toxicities on a patient and their family.
- b. To work with a multidisciplinary team in managing patients receiving a stem cell transplant and other cellular therapies..
- c. To develop skills in the communication and education of families and patients about clinical trials, toxicities, relapse and the end-of-life decisions.
- d. To develop skills in educating patients about the rationale and goal of clinical trials, trial design, side effects of the study drug and in obtaining informed consent.

VII. Progressive Fellow's Responsibility by PGY level

- a. As each fellow gains competence in caring for stem cell transplant patients, he/she will be given increasing responsibilities for patient-care and discharge; medical decision making; chemotherapy ordering; procedures; practice based learning (includes evaluation and presentation of scientific data); communication with patients, consultants, nurses and physician extenders, and social work; professionalism and ethical maturity; and systems based practice. Fellows will be encouraged to direct and lead medical rounds and also direct patient counseling regarding diagnostic, treatment (standard vs. clinical trial), and end-of-life decisions as their competency increases.

This chart details the **minimum** curricular objectives for each year of fellowship. Competency at each year includes continued demonstration of the preceding year's competency goals. The colored information identifies the methods of evaluation for each of the 6 core competencies.

| | F1 | F2 | F3 |
|---|---|---|---|
| | Performs at the level of an internist-first year fellow | Performs at the level of a second-third year fellow | Performs at the level of a third year fellow-independent, board certified Hematologist/Oncologist. |
| Patient Care : | | | |
| History Taking <ul style="list-style-type: none"> • Faculty evaluation • Direct evaluation by faculty • Nursing/NP Evaluation • Global assessment by Hem/Onc Competency Committee | Demonstrates the ability to obtain and document an accurate and complete history from patient, caretaker or outside resources with moderate input from faculty. Specific historical areas include: <ul style="list-style-type: none"> • Risk factors for transplant including poor performance status, renal/cardiac/liver disorders, etc. • Presence or absence of symptoms and complications | Demonstrates the ability to obtain and document an accurate and complete history from patient, caretaker or outside resources with occasional input from faculty. Readily identifies complications of transplant including graft versus host disease, CMV, bleeding, PTLD, etc. Begins to deal with sensitive topics such as <ul style="list-style-type: none"> • Compliance/adherence issues | Demonstrates the ability to obtain and document an accurate and complete history from patient, caretaker or outside resources independently. Successfully deals with sensitive topics. Correctly recognizes and acts on key historical elements that may alter patient's prognosis or transplant options or immunosuppressive regimen. Provides feedback to younger team members or physician |

| | F1 | F2 | F3 |
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| | of stem cell transplantation including infection, graft versus host disease, CMV, bleeding, PTL, etc. | <ul style="list-style-type: none"> • Treatment and toxicities of chemotherapy • Participation in clinical trial • End of life issues Begins to recognize key historical elements that may indicate high risk for transplant complications or disease relapse including <ul style="list-style-type: none"> • Cardiac disease • Renal/hepatic disorders • Advanced age • Poor performance status • Prior radiation/poor marrow reserve | extends on their history taking skills. |
| Physical Exam <ul style="list-style-type: none"> • Faculty Evaluation • Global assessment by Hem/Onc Competency Committee | Attempts to characterize abnormalities on exam with regular input from faculty. Demonstrates the ability to perform a routine: <ul style="list-style-type: none"> • Systemic evaluation for evidence of infection • Identify and characterize lymph nodes as normal or pathologic • Recognize the presence of cutaneous GVHD and treatment available for GVHD • Identify petechiae and other manifestations of cytopenias or bleeding | Demonstrates the ability to recognize abnormalities on the physical exam. Able to identify pertinent negative and positive exam findings with occasional input from faculty. <ul style="list-style-type: none"> • Identify rashes either related to drug toxicity or disease process, i.e. GVHD • Identifies treatment available for GVHD • Identifies complications of immunosuppression • Identifies subtle changes in patients clinical condition suggesting imminent deterioration or complication | Independently carries out an accurate physical examination with both pertinent normal and abnormal physical findings. Anticipates and actively finds physical signs of drug toxicity, GVHD, or disease complication including <ul style="list-style-type: none"> • Rashes • Infectious complications • GVHD • Neurologic toxicity • Pulmonary toxicity • Renal toxicity Identifies treatment available for GVHD |

| | F1 | F2 | F3 |
|---|--|---|--|
| | <ul style="list-style-type: none"> Examination of indwelling catheters for evidence of infection | | Independently identifies subtle changes in patient's clinical condition suggesting imminent deterioration or complication and acts on these findings. |
| Management <ul style="list-style-type: none"> Faculty Evaluation In service examination Global assessment by Hem/Onc Competency Committee | <p>Reliably recognizes critical illness and appropriately seeks assistance.</p> <p>Recognizes indications for stem cell transplantation and potential complications with moderate faculty input for</p> <ul style="list-style-type: none"> AML ALL Aplastic Anemia MDS CML/myeloproliferative disorder NHL/HL MM Benign hematologic/rheumatologic disorders Certain solid tumors <p>Understands indications, risks and benefits for:</p> <ul style="list-style-type: none"> RBC transfusion Use of FFP/coagulation factor replacement Plt Transfusion Leukopheresis/plasmapheresis Intubation Central lines (mediport, Groshong, etc.) | <p>Reliably recognizes critical illness and can independently initiate emergent managing strategies. Ongoing management goals are correct with occasional faculty input.</p> <p>Recognizes indications for stem cell transplantation and potential complications with moderate faculty input for</p> <ul style="list-style-type: none"> AML ALL Aplastic Anemia MDS CML/myeloproliferative disorder NHL/HL MM Benign hematologic/rheumatologic disorders Certain solid tumors <p>Identifies the indications, benefits (morbidity vs mortality), risks and contraindications with occasional faculty input for the following therapies:</p> | <p>Reliably recognizes critical illness and can independently initiate emergent and ongoing management strategies.</p> <p>Can almost independently determine management strategy including chemotherapy regimen, supportive care, or palliative measures and selects appropriate patients to offer these options. Recognizes the variety of therapeutic alternatives, particularly when no standard of care exists.</p> <p>Knows the indications and toxicities for autologous, allogeneic, unrelated, and non-myeloablative stem cell transplant and can assess complications of these regimens.</p> <p>Knows required supportive measures for selected transplant regimens (i.e. indications for growth factors, immunosuppression, prophylactic antibiotics, etc.)</p> <p>Aware of the pathologic,</p> |

| | F1 | F2 | F3 |
|---|--|--|--|
| | <ul style="list-style-type: none"> • Dialysis • Growth factors • Anti-emetics | <ul style="list-style-type: none"> • Common transplant conditioning regimens or mobilization (i.e. GCSF, BEAM, busulfan, • Donor lymphocyte infusion • Immunotherapy (rituximab) • Total body radiotherapy • Immunosuppression (MMF, cyclosporine, etc) • Prednisone <p>Identifies the indications, benefits (morbidity vs mortality), risks and contraindications with occasional faculty input for the following types of transplantation:</p> <ul style="list-style-type: none"> • ABO/HLA mismatched transplants • Autologous transplant • Related/Unrelated transplant • Non-myeloablative transplant | <p>genetic, diagnostic and prognostic markers seen in common hematologic disorders and their implications in therapeutic decision making.</p> |
| <p>Procedural skills</p> <ul style="list-style-type: none"> • Faculty Evaluation • Direct observation by faculty • Procedure Log • Global assessment by Hem/Onc Competency Committee | <p>Demonstrates the cognitive, counseling and technical skills for</p> <ul style="list-style-type: none"> • Bone marrow aspiration and biopsy • Lumbar puncture with intrathecal chemotherapy administration • Ommaya reservoir access <p>Interprets with moderate faculty input:</p> <ul style="list-style-type: none"> • CBC | <p>Masters the cognitive, counseling and technical skills with limited faculty input for :</p> <ul style="list-style-type: none"> • Bone marrow aspiration and biopsy • Lumbar puncture with intrathecal chemotherapy administration • Ommaya reservoir access <p>Interprets with occasional faculty input:</p> <ul style="list-style-type: none"> • Flow Cytometry | <p>Independent in performing, counseling, and planning appropriate procedures for patients who have undergone a stem cell transplantation.</p> <p>Independently interprets:</p> <ul style="list-style-type: none"> • Flow Cytometry • Bone Marrow Biopsy • Peripheral Blood smear • Cytogenetics • FISH • HLA typing |

| | F1 | F2 | F3 |
|--|--|---|---|
| | <ul style="list-style-type: none"> • Peripheral blood smear • Flow cytometry • Bone marrow biopsy and aspiration • Cytogenetics • FISH • HLA typing • CD34 count stem collection parameters | <ul style="list-style-type: none"> • Bone Marrow Biopsy • Peripheral Blood smear • Cytogenetics • FISH • HLA typing • CD34 count stem collection parameters | <ul style="list-style-type: none"> • CD34 count stem collection parameters |
| Documentation <ul style="list-style-type: none"> • Faculty evaluations • Global assessment by Hem/Onc Competency Committee | Writes admission history and physicals and progress notes that identify important data and demonstrate thoughtful problem based assessment and plan. | Writes admission history and physical and progress notes that identify important data and demonstrate complete problem based assessment and plan, with inclusion of potential toxicities and identification of prognostic factors, and that effectively communicate with referring physicians. | Writes admission notes and progress notes that identify important data and demonstrate thorough problem based assessment and plan, with inclusion of prognosis, risk factors for relapse, discussion of potential toxicities, supportive care measures, end-of-life/palliative care issues, and role for clinical trials. These notes should also provide effective communication to referring physicians. |
| Counseling skills <ul style="list-style-type: none"> • Faculty evaluations • Direct observation by faculty • Global assessment by Hem/Onc Competency Committee | Begins to discuss therapeutic approach and end-of life care with families with regular input from faculty | Able to accurately and compassionately discuss therapeutic strategies (including relapse management), potential toxicities, and end-of-life issues with patients and their families with limited faculty input. Begins to counsel patients | Able to independently, accurately, and compassionately discuss therapeutic strategies (including relapse management), potential toxicities, and end-of-life issues with patients and their families. Counsels patients regarding |

| | F1 | F2 | F3 |
|---|--|---|--|
| | | regarding clinical trials, including describing the trial, alternative therapies, and potential toxicities with an aim toward competently offering informed consent. | clinical trials, including describing the trial, alternative therapies, and potential toxicities with ability to competently obtain informed consent. |
| Consultation Process <ul style="list-style-type: none"> • Faculty evaluations • Global assessment by Hem/Onc Competency Committee | Uses relevant questions to obtain consultation and follows up on unclear recommendations. | Seeks and obtains appropriate medical or surgical consultation in a timely fashion. Able to follow up on unclear recommendations and communicate effectively with consultants regarding patients malignancy, therapy, and expected complications. Discusses results, patient diagnoses, and radiographic findings with pathologists and radiologists. | Critically analyses consultant recommendations and manages conflicting opinions of multiple consultants. Able to discuss complicated or unclear radiographic and pathologic results with pathologists and radiologists in order to clarify plans for patient management. |
| Medical Knowledge <ul style="list-style-type: none"> • Faculty Evaluations • In service examination • Required Conferences • Global assessment by Hem/Onc Competency Committee | See Section IV. Goals and Objectives. Able to recognize and initiate appropriate management strategy for diseases described above with regular faculty input. | See Section IV. Goals and Objectives. Able to recognize and initiate appropriate management strategy for diseases described above and potential complications with limited faculty input. Capable of justifying treatment decisions and recognizing possible complications. Begins teaching about management decisions. | See Section IV. Goals and Objectives. Able to recognize and independently initiate appropriate management strategy for diseases described above, with knowledge of potential complications. Confident of treatment decisions and uses current literature to support treatment decisions. Teaches faculty, physician extenders and housestaff. |
| Medical Knowledge: | Able to assess toxicity with | Knows dosing/schedule of | Can independently make |

| | F1 | F2 | F3 |
|--|--|---|--|
| chemotherapy <ul style="list-style-type: none"> • Faculty Evaluations • Direct observation by faculty and pharmacy • Global assessment by Hem/Onc competency committee | regular faculty input. Evaluate post-transplant cellular therapy outcomes | major treatment/immunosuppressive regimens and potential toxicities Begins to recognize necessary dose reductions for hepatic/renal impairment, myelosuppression, or other complication. Evaluate post-transplant cellular therapy outcomes | necessary dose reductions, and use novel regimens as described in the literature. Evaluate post-transplant cellular therapy outcomes |
| Interpersonal Skills and Communication <ul style="list-style-type: none"> • Faculty Evaluations • Direct observation by faculty • Nurse/NP evaluation • Global assessment by Hem/Onc Competency Committee | Effectively establishes rapport with patients and families and initiates communication with them on a regular basis. Presents on rounds in an organized and articulate fashion. Appropriately communicates with other consultants, nurses, patient care managers, and other health care professionals. Functions as an effective team member. | Effectively carries out difficult discussions, such as sensitive topic discussions with occasional faculty input. Provides teaching and feedback to more junior team members/physician extenders on their communication styles. Functions as an effective team leader with occasional faculty input. | Able to deal with the most challenging patients and families. Coordinates team communication to optimize patient care. Functions as an effective team leader, able to direct management rounds. |
| Professionalism <ul style="list-style-type: none"> • Faculty evaluation • Global Assessment by Hem/Onc Competency Committee • Nursing/NP Evaluations | Identifies ethical issues. Strives for patient care and knowledge excellence. Reliably accomplishes assigned tasks. Demonstrates integrity. | Identifies ethical issues and the resources available to solve them. Strives for patient care and knowledge excellence. Reliably identifies and accomplishes necessary tasks. | Identifies ethical issues and solves them using the available resources. Strives for patient care and knowledge excellence. Reliably identifies and accomplishes necessary tasks. |

| | F1 | F2 | F3 |
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| | | Demonstrates integrity. | Provides counseling on professionalism issues for more junior team members. Demonstrates integrity. Sets a tone of respect and collegiality for the team. |
| Practice Based Learning and Improvement <ul style="list-style-type: none"> • Faculty Evaluations • Conference presentations • Global assessment by Hem/Onc Competency Committee | Reads about patient's issues in review articles and hematology/oncology texts (DeVita, Williams or Wintrobe's Hematology). Seeks and accepts feedback. | Uses major journals as references (Blood, NEJM, Journal Clinical Oncology) as reading resources, gaining appreciation of novel treatment approaches, current standard of care, and ongoing studies. Identifies knowledge deficiencies and seeks to correct them. Seeks and accepts feedback. | Familiar with the current literature and recent abstract/meeting presentation data. Seeks and accepts feedback. |
| Systems Based Practice <ul style="list-style-type: none"> • Faculty evaluation • Nursing/NP Evaluations • Global assessment by Hem/Onc Competency Committee | Effectively communicates with nurses and other professionals to optimize patient care. Writes effective notes. Appropriately transitions patients to the next level of care. Uses strategies to obtain information from other practitioners about patients' current health | Develops advocacy strategies for patients with access to health care issues. | Consistently advocates for patients, insures appropriate referrals and progress notes accurately reflect care. Communicates effectively with referring physicians. Develops systems designed to optimize follow-up. |

VIII. Physician extender's (NP/PA) responsibilities on the BMT service

- a. NP/PAs should be the primary care taker for all of the service patients. Each NP/PA on the service will have a maximum of 7 patients to care for.
- b. The NP/PA will provide for the direct care of the patients including admission orders, daily order writing (with the exception of chemotherapy), serving as first call for the nursing staff on issues regarding patient care, arranging for patient discharge, and daily documentation via progress notes, admission notes, and discharge summaries.
- c. NP/PAs will arrange to receive and give sign-out on all patients M-F at 7am and 6pm, and at 7am and noon, respectively, on the weekends.
- d. Chemotherapy order writing and procedures should be performed by the fellow whenever possible; however, in the event that the fellow is unavailable due to days off or clinic responsibilities, the NP/PA may write chemotherapy or perform necessary procedures with attending supervision.
- e. Discharge summaries must be completed within 7 days of the discharge. NP/PAs will be responsible for completing d/c summaries.
- f. The fellow will not serve as the primary care taker for patients on the service, with the exception of weekends and holidays. On the weekends or holidays, the fellow, at least one NP, and the attending will divide the necessary patient care duties including those of documentation and order writing. Fellows are primarily responsible for documenting progress notes on assigned patients. The NP/PA typically will take care of order writing and other patient care tasks for patients assigned to fellows on these days. During the week, additional NP/PAs will be available (i.e. a float NP/PA) in the event that the service exceeds the capacity of the existing NP/PAs.

IX. Attending's responsibilities on the BMT service

- a. Service attending will communicate with the fellow on a regular basis for patient care and continuity. Similarly, fellow will communicate with attending right away if there is new admission, death or significant change in patient's condition.
- b. Service attending will supervise the fellow in the care of patients on the BMT service, will supervise daily rounds, and will supervise the fellows as they take home call with regards to chemotherapy administration, patient placement, admissions, or transfers.
- c. Service attending will provide medical supervision and advice to NP/PAs and the fellows in the care of patients, and will serve as the primary back-up for NP/PAs when the fellow is off or in clinic.
- d. The service attending in conjunction with pharmacy must review and sign all chemotherapy orders written by the fellow or NP/PA.
- e. The service attending must supervise all procedures including Bone marrow biopsy, lumbar puncture, etc. until the NP/PA and/or fellow is competent to perform these procedures.
- f. The attending is encouraged to supervise the fellow in the care of patients on clinical trials (being familiar with the details of) and discussing the details of the trials as treatment option with the patient. The informed consent for clinical trial is obtained in conjunction with the research staff and attending.
- g. The inpatient attending is required to provide patient oriented teaching that can include but is not limited to bedside rounds, didactic lectures, and pathologic and radiographic reviews.

X. Education

- a. Service attending will conduct bedside and/or patient oriented teaching. This teaching can include but is not limited to bedside rounds, didactic lectures, and pathologic and radiographic reviews.

- b. Fellows will be encouraged to do literature searches, reading, reviews, and presentations related to the cases seen on the service, providing education to the attendings and physician extenders.
- c. Attendance at weekly Clinical Review Conference (case presentations), Journal club, CCC grand rounds, Hematology/Oncology lecture series, and BMT census are required of all fellows. Fellows on service will be excused from service responsibilities to attend these conferences with the exception of service emergencies/codes.

IX. Evaluation

- a. The fellow will evaluate the attending at the completion of this rotation. The written evaluation is performed electronically using the MedHub system and is available for the attending's review online. Attendings receive an annual review summarizing the evaluations of all of the fellows they worked with over the preceding year.
- b. Each attending will provide verbal and written evaluation of the fellow at the end of the rotation. Written evaluation is given electronically on the MedHub system. Fellows may review this written evaluation electronically at any time and will receive a summary of these evaluations from the Program Director semi-annually.
- c. Nurse practitioners will provide a written evaluation of the fellow's professionalism, communication, knowledge, patient care, and systems based practice skills at the end of the rotation.
- d. The Clinical Competency Committee consisting of the program director, associate program director, program coordinator, and 8-10 key clinical faculty meet semi-annually to review all aspects of fellow performance and proficiency in all aspects of the 6 competencies as well as in service examination scores.
- e. Annual hematology and oncology in-service examinations will be taken by all hematology/oncology fellows to assess medical knowledge. Annual oncology in-service examinations will be taken by all medical oncology fellows to assess medical knowledge.