# PEDIATRIC BLOOD AND MARROW TRANSPLANT PROGRAM

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**DOCUMENT TITLE:**
Duke University Pediatric Blood and Marrow Transplant Program Other Staff

**DOCUMENT NOTES:**

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PBMT-GEN-010
DUKE UNIVERSITY PEDIATRIC BLOOD AND MARROW TRANSPLANT PROGRAM OTHER STAFF

1 PURPOSE
1.1 To provide an outline of support staff and the services provided to the Pediatric Blood and Marrow Transplant (PBMT) Program.

2 INTRODUCTION
2.1 Pediatric patients undergoing blood and marrow transplant require coordinated care provided by an integrated team of all disciplines. Support staff provide essential services to the ongoing complex care of the Pediatric Blood and Marrow Transplant Patient.

3 SCOPE AND RESPONSIBILITIES
3.1 All support staff providing care to the Pediatric Blood and Marrow Transplant Patient.

4 DEFINITIONS/ACRONYMS
4.1 CCRU Children’s Clinical Research Unit
4.2 CHC Children’s Health Center
4.3 CIBMTR Center for International Blood and Marrow Transplant Research
4.4 DOCR Duke Office of Clinical Research
4.5 FSP Family Support Program
4.6 HSCT Hematopoietic stem cell transplantation
4.7 IND Investigational New Drug
4.8 IV Intravenous
4.9 IRB Investigational Review Board
4.10 LCSW Licensed Clinical Social Worker
4.11 OT Occupational Therapy
4.12 PBMT Pediatric Blood and Marrow Transplant
4.13 PT Physical Therapy
4.14 PN Pediatric Nutritionist
4.15 SOP Standardized Operating Procedure
4.16 TED Transplant Essential Data

5 MATERIALS
5.1 N/A
6 EQUIPMENT
6.1 N/A

7 SAFETY
7.1 N/A

8 PROCEDURE

8.1 Dietary/Nutrition Staff
8.1.1 A Pediatric Nutritionist (PN) provides regular services to patients hospitalized on the Pediatric Blood and Marrow Transplant Inpatient Unit. The PN regularly rounds with the inpatient care team and also provides outpatient consultations on a prn basis. There is a 5th floor galley technician who provides the individual trays and assists with requested patient nourishments. The 5200 galley is stocked with snacks for babies and children, formulas, high caloric drinks, popsicles, long shelf life food and frozen entrees for patients who prefer to eat outside of meal times.

8.2 Social Services
8.2.1 There are 2 full-time Licensed Clinical Social Workers (LCSW) assigned the PBMT program. The LCSW who provides psychosocial assessments, diagnosis, and treatment, as well as discharge planning to and consultation about PBMT patients, parents, caretakers, siblings and other family members to assist them and the health care team in coping with patient's hospitalization, illness, diagnosis, treatment and/or life situation, including emotional, mental and substance abuse disorders in patients and parents/caretakers.

8.3 Clinical Research Team
8.3.1 The PBMT program has 13 full-time staff to assist with the Investigational Review Board (IRB) submissions, Investigational New Drugs (IND), protocol development, patient screening, patient education and consenting, enrollment, protocol compliance, study related procedures, data management and research samples. The team is made up of a clinical trials manager, clinical research coordinators and clinical trials assistants. The manager and some of the clinical research coordinators are Registered Nurses. The Clinical Research Team participates in a variety of independent activities involved in the collection, analysis, documentation and interpretation of data related to many protocols. They confer with Principal Investigators regarding data elements needed for new protocols and assure all pertinent tests are performed and data is collected all drug studies. They work with the Duke Children’s clinical research unit (CRU) and the Duke Office of Clinical Research (DOCR) during study start up, throughout the course of the study and close out. The Clinical Research Team is responsible for working with the CCRU and DOCR to create order sets for the
electronic medical record for various studies and for patient related financial reconciliation.

8.4 PBMT Programmer

8.4.1 There is a full-time programmer assigned to the PBMT program. The programmer identifies and analyzes specific PBMT information system and office automation requirements. He develops, maintains and modifies IS programs to meet PBMT Program needs. The programmer responds to data requests and special projects for internal staff and external departments/organizations and investigates and evaluates new IS technologies to determine appropriateness and usability in the PBMT Program.

8.5 Pharmacists

8.5.1 There is a dedicated full-time Clinical Pharmacist dedicated to the PBMT inpatient Program. In addition, the outpatient pediatric pharmacy in the Children’s Health Center (CHC) dispenses compounds and checks all medications used by PBMT patients in the outpatient setting. The Day Hospital also has a dedicated pharmacy team to fill medication orders during the daily operations of the clinic.

8.5.2 The PBMT Clinical Pharmacist is responsible for:

8.5.2.1 Providing specialized pharmaceutical services to improve drug usage and therapeutic outcomes including, but not limited to, advising physicians on issues concerning drug therapy, the inherent toxicity of drugs and their side effects, as well as assisting in the prescription of appropriate doses.

8.5.2.2 Mentoring pharmacists in training including, but not limited to, Duke Pharmacy Practice Residents, University of North Carolina and Campbell University students; activities should include both practical and didactic experiences.

8.5.2.3 Maintaining liaison relationships with medical and nursing staff; providing timely information pertaining to pharmaceutical supplies, drug usage and compatibility, state and federal regulations regarding drug controls, and Joint Commission Standards.

8.5.2.4 Conducting and evaluating medication histories, assessing compliance and suggesting modifications to achieve desired outcomes; instructing patients in the proper use of prescribed drugs and making Patient Care Rounds with physicians to evaluate patient progress.

8.5.2.5 Individualizing medication regimens using sound principles, accounting for pharmacodynamic and pharmacokinetic variations in drug absorption, distribution, metabolism and elimination with responsibility for establishing and continually improving the delivery of Pharmaceutical Care
to patients within areas of direct responsibility and assisting others in the department with the same.

8.5.2.6 Conducting and participating in research, including, but not limited to, performing as the primary investigator or co-investigator for research programs which will impact on the delivery of quality care or examine the pharmaco-economic impact of providing care to the patients in the Duke Health System.

8.5.2.7 Participating in development and implementation of guidelines or Standardized Operating Procedures (SOP) related in the pharmaceutical management of transplant recipients.

8.5.3 Education/Training

8.5.3.1 Requires a Doctor of Pharmacy degree and a North Carolina Pharmacist's License.

8.5.3.2 Licensed to practice in the jurisdiction of the clinical program and shall be limited to a scope of practice within the parameters of their training and licensure.

8.5.3.3 Training shall include:

8.5.3.3.1 An overview of hematology/oncology patient care, including the cellular therapy process.

8.5.3.3.2 Therapeutic drug monitoring, including, but not limited to, anti-infective agents, immunosuppressive therapy, anti-seizure medications, and anticoagulation.

8.5.3.3.3 Monitoring for and recognition of drug/drug and drug/food interactions and necessary dose modifications.

8.5.3.3.4 Recognition of medications that require adjustment for organ dysfunction.

8.5.3.3.5 Adverse events including but not limited to, cytokine release syndrome and neurologic toxicities.

8.5.3.4 Participation in ten hours of education activities related to cellular therapy annually at a minimum.

8.5.3.5 Continuing education shall include, but is not limited to, activities related to the field of Hematopoietic stem cell transplantation (HSCT).

8.6 Childlife Therapists/Art Therapy/Family Support Program (FSP)

8.6.1 A full time childlife therapist is employed to work with and support the PBMT patients during their inpatient stay. An art therapist works with the children 1 day per week in the inpatient setting and twice per week.
in the outpatient setting. The FSP program and social workers conduct support groups for patients, parents and siblings on a regular basis.

8.7 Music Therapist

8.7.1 A trained music therapist rotates between the inpatient and outpatient areas.

8.8 Physical Therapy (PT)/ Occupational Therapy (OT)/Speech Therapy

8.8.1 The PT/OT/Speech Therapists are available, as needed, for the inpatient and outpatient areas.

8.9 Nurse Clinician

8.9.1 Nurse Clinicians/Coordinators are assigned to individual physicians to coordinate the care of all potential stem cell transplant patients. The PBMT Nurse Coordinator is a Registered Nurse with experience and education in stem cell transplant. The Nurse Coordinator is trained and evaluated on the following competencies:

8.9.1.1 Cognitive skills

8.9.1.1.1 Communicates effectively as primary resource and liaison for the patient and the PBMT team.

8.9.1.1.2 Understands the informed consent process, confirming signature and appropriate filing.

8.9.1.1.3 Provides protocol and treatment related education to the patient and/or caregiver in a manner that meets their learning style and needs.

8.9.1.1.4 Ensures that the patient/caregiver understands the information given to them.

8.9.1.1.5 Communicates clinical information to physicians and clinical staff to ensure quality care, appropriate clinical decision-making and adherence to protocol requirements.

8.9.1.1.6 Develops individual schedules, systems or processes that facilitate efficient patient access to services.

8.9.1.1.7 Coordinates care between the inpatient and outpatient setting and between multiple ancillary and support departments (i.e. Radiology, Pharmacy, Labs).

8.9.1.1.8 Collaborates with home health, home infusion and/or other services for clinical support needs of the patient.

8.10 Discharge Planner
8.10.1 The Discharge Planner rounds daily with the inpatient team and is involved in each patient discharge. The Discharge Planner is a Registered Nurse with experience and education in stem cell transplantation.

8.10.2 The Discharge Planner is responsible for:

8.10.2.1 Communicating effectively with the PBMT team and with the PBMT patients and families or legally authorized representative(s).

8.10.2.2 Providing patient/caregiver a copy of Discharge Handbook within two weeks of admission to unit.

8.10.2.3 Utilizing comprehensive assessment skills to determine patients’ appropriateness of home care and initiates the development plan of care in collaboration with patient, caregiver PBMT team, and appropriate home health agency.

8.10.2.4 Providing teaching to patient/caregiver regarding central venous line care, lab draws, infection control, skin care, oral, topical, inhaled and intravenous (IV) medications (including IV pump instructions if appropriate).

8.10.2.5 Ensuring that the patient/caregiver understands the information at time of discharge.

8.10.2.6 Coordinating care between the inpatient and outpatient team to ensure a smooth transition to the outpatient setting.

8.10.2.7 Coordinating infusion therapy for patient with appropriate home health agency.

8.10.2.8 Making initial home visit to patient on the first night of discharge to assure smooth transition, identify any issues, and provide follow up to referral source and PBMT team.

8.11 Psychology Services

8.11.1 Psychology services are available, when needed, in the inpatient and outpatient areas.

8.12 Data Management Staff

8.12.1 Designated data management staff will collect all necessary data to complete Transplant Essential Data (TED) Forms of the Center for International Blood and Marrow Transplant Research (CIBMTR) or the Minimal Essential DAT-A forms of the EBMT.

8.12.2 Data management staff will participate in continuing education annually.

9 RELATED DOCUMENTS/FORMS

9.1 N/A
10 REFERENCES

10.1 N/A

11 REVISION HISTORY

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<td>02</td>
<td>S. McCollum</td>
<td>Format updated to standardize formatting including addition of introduction, scope, and revision history.</td>
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<td>Added Section 8.11 to included Psychology services as per FACT standards 7th edition (B3.11.1.3).</td>
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<td>Added Section 8.12 to include data management staff and continuing education requirements as per FACT standards 7th edition (B3.11.1.5).</td>
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# Signature Manifest

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