PEDIATRIC BLOOD AND MARROW TRANSPLANT PROGRAM

DOCUMENT NUMBER: PBMT-GEN-001

DOCUMENT TITLE:
Scope of Care

DOCUMENT NOTES:

Document Information

Revision: 09	**Vault:** PBMT-General-rel
Status: Release	**Document Type:** PBMT

Date Information

Creation Date: 16 Nov 2021	**Release Date:** 12 Dec 2021
Effective Date: 12 Dec 2021	**Expiration Date:**

Control Information

Author: MOORE171	**Owner:** MOORE171
Previous Number: PBMT-GEN-001 Rev 08	**Change Number:** PBMT-CCR-340

PBMT-GEN-001
SCOPE OF CARE

1 TYPE OF SERVICE/LEVEL OF CARE

1.1 Pediatric patients undergoing hematopoietic stem cell transplantation from autologous or allogeneic, related or unrelated donors utilizing cells from bone marrow, mobilized peripheral blood or umbilical cord blood are housed on a 17 bed inpatient unit formally referred to as the Pediatric Transplant and Cellular Therapy & Oncology Unit. Additionally, pediatric patients undergoing cellular therapy and/or pediatric oncology patients requiring inpatient care may receive treatment on this unit.

1.2 This unit operates 24 hours per day, 7 days per week. It is classified as a step-down unit and provides specialized high complexity care to patients including immune-compromised and myeloablative transplant patients.

1.3 The inpatient unit is under high-efficiency particulate air (HEPA) filtration and positive pressure ventilation. Patient rooms have private bathrooms designated for use by the patient and/or resident caregiver. A parent sleep area is provided in each room so that a parent can room-in with their child. Separate cooking and lounge facilities are located on the unit for use by caregivers of children undergoing the transplant procedure. A multi-purpose children's play area is also available for the use of patients and resident caregivers hospitalized on the unit.

1.4 Note: Patients requiring mechanical ventilation and those with uncontrolled hemodynamic instability and other issues that exceed the scope of care are transferred to the Pediatric Intensive Care Unit (PICU) for closer monitoring and intervention. See Appendix A for conditions and interventions requiring ICU level care.

2 SCOPE AND COMPLEXITY OF CUSTOMERS' NEEDS/MAJOR FUNCTIONS OF SERVICE

2.1 The majority of the diagnoses of these patients includes oncologic, immunologic, metabolic and genetic diseases that can be treated with hematopoietic stem cell transplant or cellular therapy. Patients are prepared for transplantation with high dose chemotherapy +/- radiation therapy which typically causes severe pancytopenia, immunodeficiency, mucositis, renal insufficiency and greatly increases the patients' risk of opportunistic and life-threatening infections and organ dysfunction. All patients require intensive monitoring, support with blood products, total parenteral nutrition (TPN), patient controlled analgesia (PCA) for pain control and have central venous catheters for the administration of numerous medications which include antibiotics, antifungals, antivirals, intravenous immunoglobulin (IVIG), growth colony stimulating factor (GCSF) and graft-versus-host disease (GvHD) prophylaxis.

3 AGE OF PATIENTS

3.1 Care is provided to patients from newborn to 30 years of age (~5% of patients are 19-30 years of age) managed by the pediatric transplant and cellular therapy team. Additionally, the donors for these patients often receive treatment during apheresis and donation of blood components (i.e. granulocyte transfusions).

4 UNIT GOALS

4.1 To provide outstanding quality of care to patients and their families as they go through the transplantation or cellular therapy procedure. To provide continuity and consistency of care between the clinic, day hospital, home health and inpatient teams.

4.2 To provide the highest level of medical and nursing management with a focus on collaborative, multidisciplinary, and cost-effective care

4.3 To provide comfort, pain control, diagnostic and therapeutic interventions as well as supportive monitoring for patients.

4.4 To provide an environment conducive to healing by delivering individualized quality care to each patient and family.

5 TYPE AND AVAILABILITY OF STAFF

5.1 Staffing includes Registered Nurses (RN), Nursing Care Assistants (NCA), and Health Unit Coordinators (HUC). The skill mix is 90% RN and 10% NCA. Staffing is determined by a variable staffing plan, which evaluates patient volume and a predetermined NHPPD (Nursing Hours per Patient Day). The nurse to patient ratio is typically 1:2 with the availability to flex up or down (typically 1:1 or 1:3) based on patient acuity.

5.2 Attending physician coverage is available 24 hours per day. The unit is also staffed with designated in-house clinical staff who cover overnight shifts. Additionally, other providers and services are active in the care of the PTCT patient including but not limited to: advanced practice providers, fellows in training, residents in training, clinical pharmacists, nutritionists, dieticians, child life specialists, social workers, physical therapists, respiratory therapists, speech therapists, occupational therapists, chaplains. Consultative physician services are provided as needed.

6 METHODS USED TO ASSESS AND MEET PATIENT'S NEEDS

6.1 Patient care needs are assessed during the pre-transplant work-up and admission process. Admission documentation is completed in the electronic medical record (EMR) by the physician and additional admission documentation is completed in the Admission Navigator by the nursing staff. A social worker and nutritionist evaluate all patients and completes the required EMR documentation. The multidisciplinary team completes daily ongoing assessment and analysis and documents accordingly.

6.2 All inpatients are discussed in detail at the weekly team meeting. The information is integrated to create a plan of care that is patient specific and spans the continuum of care. Additional assessment tools include, but are not limited to: Patient Visitor Relations Reports, Performance Improvement Initiatives, and Patient Satisfaction Surveys.

7 APPROPRIATENESS, CLINICAL NECESSITY, AND TIMELINESS OF SUPPORT SERVICES

7.1 Emergent supportive services (medical, respiratory therapist, social work) required by patient needs are available on a 24-hour basis. All other services are provided as needed.

8 EXTENT TO WHICH THE LEVEL OF CARE PROVIDED MEETS PATIENT'S NEEDS

8.1 If the patient needs care beyond the scope of this unit, then referrals, consultations, or transfer to other units or facilities are provided as appropriate.

8.2 See Appendix A at the bottom of this document for Level of Care requirements and assessment recommendations.

9 STANDARDS OF CARE/ PRACTICE GUIDELINES IN USE: PATIENT CARE IS PROVIDED BASED ON STANDARDS OF CARE AND PRACTICE

9.1 Process Standards Manual

9.2 Duke Hospital Policy Manual

9.3 Structure Standards Manual

9.4 Unit standard operating procedures (SOPs)

9.5 Institutional and other manuals such as the Safety Manual and the Infection Control Manual

9.5.1 Many of these manuals can be found on the Duke Intranet.

10 PERFORMANCE IMPROVEMENT PROJECT IDENTIFICATION

10.1 The multidisciplinary team identifies performance improvement initiatives based on outcome data from patient assessment tools such as:

10.1.1 Patient Visitor Relation Reports

10.1.2 QI Monitoring

10.1.3 Patient Satisfaction Scores

10.1.4 Duke Hospital Performance Initiatives

11 REVISION HISTORY

Revision No.	Author	Description of Change(s)
09	Sally McCollum	• Scope updated throughout to reflect cellular therapy • Section 1.1 updated to reflect new unit layout • Section 1.2 updated to reflect new unit layout • Appendix A updated to reflect cellular therapy

APPENDIX A- Intervention Table:

Intervention	Level of Care Requirement
Home ventilator	ICU
Oxygen via NC w/max: Infants: 2 L, > 1yr: 5 L	PTCT
Oxygen via NC beyond limits listed above	ICU
Oxygen via trach collar w/up to 60% O2/or within 10% of baseline	ICU
Blenders for O2 delivery/flow for cardiac patients	ICU
Heliox	ICU
High flow nasal cannula: End of Life/Palliative Care patient	PTCT
High flow nasal cannula for respiratory distress	ICU
Full face bipap: Initiate	PBMT > 5kg ICU ≤ 5 kg
Full face bipap: maintain or change settings	PTCT
Nasal cpap: Initiate/maintain/ change settings	PTCT
Pleural and pericardial drains	PTCT
EVD	ICU
Invasive ICP monitors	ICU
Peritoneal dialysis	PTCT
Continuous doppler	ICU
IV insulin for high KCL	PTCT
Assessment no more frequent than every 2hr /interventions	PTCTT
New tracheostomy (until 1st trach change)	ICU
Epidural/thoracic epidural	PTCT - epidural
RATG/ATG	PTCT
Milrinone infusion max 1 mcg/kg	ICU
Insulin drip (gtt) infusion	PTCT
Continuous albuterol	ICU
max 20 mg/hr	
Heparin drip (gtt)	PBMT
Pantoprazole drip (gtt)	PBMT
Ketamine for pain	PTCT
Lidocaine for pain	PTCT
Octreotide drip (gtt)	PTCT
Midazolam drip (gtt) for seizures or other neurologic conditions	PTCT
Dopamine infusion max 10 mcg/kg/min	PTCT

Other conditions requiring ICU assessment*via Pediatric Rapid Response Team (PRRT):

- Change in patient's respiratory status such as (increased work of breathing (WOB), high use of oxygen
- Change in Level of Consciousness (LOC) such as lethargy, confusion, difficult to console
- Blood Pressure (BP) changes such as elevated pressures refractory to intervention or decreased pressures below standards for the individual patient
- Decreased perfusion and blood flow

Or Code Blue:

- Patient becomes unresponsive
- Patient exhibits respiratory decompensation despite increased oxygen support
- Patient showing signs of inadequate perfusion with hypotension requiring rapid fluid resuscitation
- Patient requiring PRRT and rapidly declines before or while PRRT is available

*post inpatient unit charge nurse and provider team assessment

Signature Manifest

Document Number: PBMT-GEN-001 **Revision:** 09
Title: Scope of Care
Effective Date: 12 Dec 2021

All dates and times are in Eastern Time.

PBMT-GEN-001 Scope of Care

Author

Name/Signature	Title	Date	Meaning/Reason
Sally McCollum (MOORE171)		16 Nov 2021, 01:13:39 PM	Approved

Medical Director

Name/Signature	Title	Date	Meaning/Reason
Joanne Kurtzberg (KURTZ001)		16 Nov 2021, 06:16:22 PM	Approved

Quality

Name/Signature	Title	Date	Meaning/Reason
Bing Shen (BS76)		19 Nov 2021, 10:11:39 AM	Approved

Document Release

Name/Signature	Title	Date	Meaning/Reason
Betsy Jordan (BJ42)		21 Nov 2021, 10:16:54 PM	Approved