



DukeMedicine

Division of Cellular Therapy

DOCUMENT NUMBER: ABMT-GEN-002

DOCUMENT TITLE:

ABMT Scope of Practice

DOCUMENT NOTES:

Document Information

Revision: 05

Vault: ABMT-General-rel

Status: Release

Document Type: General

Date Information

Creation Date: 12 Feb 2018

Release Date: 27 Aug 2018

Effective Date: 27 Aug 2018

Expiration Date:

Control Information

Author: JLF29

Owner: JLF29

Previous Number: ABMT-GEN-002 Rev 04

Change Number: ABMT-CCR-200

ABMT-GEN-002

ABMT SCOPE OF PRACTICE

1 PURPOSE

- 1.1 To describe the scope and responsibilities of the Adult Blood and Marrow Transplant Program.

2 INTRODUCTION

- 2.1 The Duke University Clinical Transplantation Program consists of an integrated medical team housed in the North Pavilion and Duke North Hospital. The Adult Program is led by Nelson Chao, MD, MBA, who is responsible for the training and supervision of faculty and trainees. The Adult Blood and Marrow Transplant Program consist of a hematopoietic cell collection facility, hematopoietic stem cell laboratory, a dedicated in-patient nursing unit and an outpatient clinic/treatment room. The hematopoietic stem cell collection facility and processing facility meet the FACT standards in their interactions with the Clinical Program.
- 2.2 The Adult Blood and Marrow Transplantation Program is part of the Duke Cancer Institute and Division of Hematologic Malignancies and Cellular Therapy. The Clinical Program meets the requirements for Joint Commission Accreditation and North Carolina Department of Facilities Services.

3 SCOPE AND RESPONSIBILITIES

- 3.1 The Adult Blood and Marrow Transplantation Program is designed to provide high quality expert care for patients undergoing immune effector cell infusion, bone marrow, umbilical cord blood, or peripheral blood stem cell transplants while conducting cancer research. The Clinical Program provides a multidisciplinary and comprehensive plan of care from the new patient evaluation through return follow-up appointments.
- 3.2 The Duke University Adult Blood and Marrow Transplantation Program has the capacity to care for 200+ transplants a year. Approximately 60% of the transplants are autologous and 40% allogeneic.

4 DEFINITIONS/ACRONYMS

- 4.1 ABMT – Adult Blood and Marrow Transplant Program
- 4.2 CLABSI – Central Line Associated Bloodstream Infection
- 4.3 CMA – Certified Medical Assistant
- 4.4 FACT – Foundation for the Accreditation of Cellular Therapy
- 4.5 HEPA – High efficiency particulate air
- 4.6 MRSA/VRE – Methicillin-resistant Staphylococcus aureus and/or Vancomycin-resistant enterococcus
- 4.7 NHPPD – Nursing hours per patient day

5 MATERIALS

5.1 NA

6 EQUIPMENT

6.1 NA

7 SAFETY

7.1 NA

8 PROCEDURE

8.1 Inpatient

8.1.1 Duke North Hospital Unit 9200 is the designated Adult Blood and Marrow Transplant Unit. The unit was remodeled in 2003 and meets the standards for HEPA filtration and air exchanges. The unit is designed to limit patient exposure to airborne organisms. Sixteen private rooms, a workroom, a galley, a consult room, and an exercise room are included in the 9200 unit.

8.1.1.1 Scope of Practice

8.1.1.1.1 Type of Service/Level of Care: ABMT unit is a dedicated 16-bed unit on the Oncology floor. The population includes patients with hematological disorders, solid tumors, and selected non-malignant disorders. Comprehensive treatment protocols include autologous, allogeneic and umbilical cord blood transplants.

8.1.1.1.2 Ages served: 18-65+

8.1.1.1.3 Hours of Operation: 24 hours a day, 7 days a week

8.1.1.1.4 Method of Care Delivery: Multidisciplinary

8.1.1.2 Scope and Complexity of Customers' Needs/Major Functions of Service

8.1.1.2.1 Patients in any phase of treatment are eligible for admission to the Adult BMT Unit. This includes, but is not limited to, patients receiving induction chemotherapy, total body radiation, high dose chemotherapy, and supportive care during and after the transplant process including intensive care monitoring.

8.1.1.2.2 When patients are discharged from the inpatient unit, their care is continued in the Adult Blood and Marrow Transplant Program

Outpatient Treatment Facility or discharged to their referring physician.

8.1.1.3 Type and Availability of Staff

8.1.1.3.1 Direct patient care is provided by RNs and NCAs according to patient acuity and individual competency-based orientation. Nursing care of the critically ill patient, requiring cardiac and blood pressure monitoring is at the discretion of unit leadership regarding the RNs readiness for orientation to the critically ill population.

8.1.1.4 Appropriateness, Clinical Necessity, and Timeliness of Support Services

8.1.1.4.1 All support services have 24-hour coverage. When necessary each service is accessible by pager. Support services include: dietary, pastoral services, pharmacy, laboratory, social work, and case management.

8.1.1.5 Methods Used to Assess and Meet Service Needs

8.1.1.5.1 Quality of care and patient outcomes are evaluated through formal performance evaluations, and quality indicators. These include patient satisfaction surveys, performance improvement activities, patient visitor relations reports, medication and adverse drug reaction report, clinical rounds and clinical and operation excellence data.

8.1.1.6 Extent to Which the Level of Care Provided Meets Patients' Needs

8.1.1.6.1 Patient's care on the Adult BMT Unit will be managed by the attending ABMT physician and the ABMT nurse practitioner/physician assistant. If the patient's condition requires additional intervention, consultants will be called to follow the patient with the ABMT team. Unit specific competencies/skills are initiated upon orientation and ongoing with yearly competency check off. A variable staffing pattern is based on NHPPD. The following NHPPD are assigned to the patient populations:

Adult BMT patient	-17.14 NHPPD
Step Down patient	-13.71 NHPPD
Intermediate Care/Border patient	-3.43 NHPPD

8.1.1.7 Standards of Care/ Practice Guidelines in Use

8.1.1.7.1 BMT follows the general standards for patient care developed by the Oncology Nursing Society – BMT Standards of Care, the Department of Nursing, Hospital Clinical Practice Committee, Oncology Nursing Practice Committee as well as the unit based Clinical Practice Team specific to ABMT population. Ongoing QI monitors encompass all patient population and levels of acuity provide methods to assess and meet patient's needs.

8.1.1.8 Performance Improvement Project Identification

8.1.1.8.1 Clinical and Operation excellence provides data on patient falls, patient satisfaction, adverse drug events, number of compliments and complaints, compliance with patient identification, restraints, skin care, MRSA/VRE acquisition, transfusion related errors and documentation compliance. Unit performance improvement activities monitor documentation, pain management, patient identification and CLABSI's

8.2 Outpatient

8.2.1 North Pavilion Adult Blood and Marrow Transplant Clinic is located one half mile from the main hospital. The clinic is dedicated to the outpatient care of stem cell transplant patients. Nine (9) examination rooms, 13 private treatment/ isolation rooms, 27 treatment chairs, a waiting room, a staff workroom, a meditation room and a family lounge are included in the transplantation clinic.

8.2.2 Scope of Practice

8.2.2.1 Type of Service/Level of Care: The Adult Bone Marrow Transplant Outpatient Treatment Facility provides a continuum of care for patients who will undergo or have undergone comprehensive treatments for, hematological disorders solid tumors and selected non-malignant disorders. The comprehensive treatment protocols include autologous, allogeneic and umbilical cord blood transplants.

8.2.2.2 Ages Served: 18-65+

8.2.2.3 Hours of Operation: Monday – Friday: 8am-6pm

8.2.2.4 Saturday, Sunday and Holidays: 8am-4pm

8.2.2.5 Method of Care Delivery: Multidisciplinary

8.2.3 Scope and Complexity of Customers' Needs/Major Functions of Service

8.2.3.1 The ABMT Outpatient Treatment Facility provides care and treatment to patients based on guidelines set up by treatment protocols and clinical trials. Care includes, but is not limited to, new patient evaluation and consultation, adjuvant, induction or supportive chemotherapy, peripheral blood progenitor cell priming with chemotherapy, peripheral blood progenitor cell pheresis, care and treatment of patients following transfer from the inpatient setting post high dose chemotherapy, reinfusion of cellular support products and transplant clinical care.

8.2.4 Type and Availability of Staff

8.2.4.1 Patient care is provided by several disciplines in the Outpatient Facility. Physicians, RNs, Adult Nurse Practitioners, Physician Assistants and CMA's all staff the Outpatient Treatment Facility. The Physicians and Nurse Practitioners/Physician Assistants are trained in the management of ABMT patients and are credentialed by the Department of Medicine. The nursing care is provided according to competency-based orientation provided by Duke Hospital Education Department. Each nurse has a minimum of 2 years of nursing experience, is certified by ONS in chemotherapy/biotherapy administration, and is OCN certified. The NCA is BCLS, EKG and phlebotomy certified; and also provide care according to competency-based orientation provided by the Duke Hospital Education Department.

8.2.5 Appropriateness, Clinical Necessity, and Timeliness of Support Services

8.2.5.1 When necessary each service is accessible by pager. Support services include: dietary, pastoral services, pharmacy, laboratory, social work, case management.

8.2.6 Methods Used to Assess and Meet Service Needs

8.2.6.1 Since patients are seen during various stages of their disease process, their needs are assessed according to their diagnosis and treatment. The physician and/or Nurse Practitioner/Physician Assistant examine new patients and follow-up patients and a plan of care, is developed with direction from the referring MD. An ABMT transplant faculty physician leads patient care rounds daily and established the plan of care. Social Workers, Dietician, Nurses, Clinical Pharmacist and Nursing Leadership participate in physician rounds. Upon closure of the Outpatient Facility, patients are instructed to contact the inpatient ABMT unit concerning problems that may arise. If

readmission to the inpatient unit is required, procedures have been developed for direct admission to the ABMT unit.

8.2.7 Extent to Which the Level of Care Provided Meets Patients' Needs

8.2.7.1 The attending physician and the Nurse Practitioners/ Physician Assistant will manage the care of the patients in the Outpatient Facility. If a patient needs or requires care beyond the scope of the outpatient facility, referrals, consultations, or transfers to a more appropriate service or unit is initiated.

8.2.8 Standards of Care/Practice Guidelines in Use

8.2.8.1 The Outpatient Treatment Facility follows the general standards for patient care developed by the Oncology Nursing Society – BMT Standards of Care, the Nursing Department Process and Structure Standards, Hospital Clinical Practice Committee, Oncology Clinical Practice Committee, and the ABMT Clinical Practice Committee.

8.2.9 Performance Improvement Project Identification

8.2.9.1 Clinical and Operation excellence provides patient satisfaction, adverse drug events, number of compliments and complaints, transfusion-related errors, and documentation compliance. Unit performance improvement activities include monitoring for pain management compliance, toxicities, infectious complications, blood transfusion practices, and unplanned readmission rates.

8.3 Staffing

8.3.1 9200 and the ABMT clinic are staffed with Registered Nurses who are trained and experienced in the care of transplant patients. The unit nurse to patient staffing ratio is 2:1 or 3:1. The nurses in the clinic care for an average of 5 patients a day. There is an acuity system used to develop the staffing patterns. A charge nurse is responsible for assigning patients and for managing the patient flow.

8.3.2 The stem cell collection facility is adjacent to the treatment room and meets FACT requirements for the collection of stem cell products. The Pheresis Nurse Coordinator trains the clinic nursing staff, provides annual competency checks, provides clinical updates and assures completion of Adverse Reaction forms on each patient.

8.4 Transfusion Service

8.4.1 Duke University Hospital Transfusion Service provides CMV appropriate, leukocyte depleted and irradiated blood products 24 hours a day for patients requiring blood products.

8.5 Pharmacy

8.5.1 Duke University Pharmacy department provides all medications routinely required for transplant patients 24 hours a day. There is a clinical pharmacist in the hospital around the clock. The outpatient clinic also has on-site pharmacy support.

8.6 HLA Laboratory

8.6.1 Duke University Clinical Transplant Immunology Laboratory performs HLA typing for the Adult Blood and Marrow Transplant Program. All HLA typing for allogeneic and autologous patients have initial or confirmatory typing at Duke. The HLA testing laboratory is accredited by the American Society of Histocompatibility and Immunogenetics (ASHI) and has the capability of carrying out DNA-based HLA typing.

9 RELATED DOCUMENTS/FORMS

9.1 N/A text

10 REFERENCES

10.1 N/A text

11 REVISION HISTORY

Revision No.	Author	Description of Change(s)
05	J. Frith	Added immune effector cells in the introduction and CMA's availability of staff. Reformatted Added 1.1 To describe the scope and responsibilities of the Adult Blood and Marrow Transplant Program.

Signature Manifest**Document Number:** ABMT-GEN-002**Revision:** 05**Title:** ABMT Scope of Practice

All dates and times are in Eastern Time.

ABMT-GEN-002 ABMT Scope of Practice**Author**

Name/Signature	Title	Date	Meaning/Reason
Jennifer Frith (JLF29)		09 Aug 2018, 04:04:23 PM	Approved

Management

Name/Signature	Title	Date	Meaning/Reason
Jennifer Frith (JLF29)		09 Aug 2018, 04:04:38 PM	Approved

Medical Director

Name/Signature	Title	Date	Meaning/Reason
Nelson Chao (CHAO0002)		11 Aug 2018, 03:04:19 AM	Approved

Quality

Name/Signature	Title	Date	Meaning/Reason
Bing Shen (BS76)		12 Aug 2018, 01:03:41 AM	Approved

Document Release

Name/Signature	Title	Date	Meaning/Reason
Betsy Jordan (BJ42)		13 Aug 2018, 10:45:23 AM	Approved