

Spec. Code: 4832(4089)
Occ. Area: 02
Work Area: 444
Prob. Period: 6 mo.
Prom. Line: none
Effective Date: 08/12/97

HEMAPHERESIS TECHNOLOGIST

Function of Job

Employees in this class are primarily responsible for operating hemapheresis equipment (equipment that takes whole blood directly from donors, separates it into its components, collects specified parts [such as platelets or peripheral stem cells] for transferal directly to patients, and returns the remaining blood to the donor) and for handling therapeutic procedures (such as plasma and red blood cell exchange from patients).

Hemapheresis procedures generally involve: setting up and operating various hemapheresis equipment; setting up and operating laboratory equipment; obtaining vascular access (venipunctures) necessary to connect donor/patient to the hemapheresis equipment; monitoring proper amount of blood being processed; monitoring the physical condition of the patient donor; ensuring the stability of the patient/donor; and recording a variety of data (such as patient/donor vital signs, amounts of blood components being exchanged, anticoagulant used, etc.) A Hemapheresis Technologist may also assist in the coordination of patient care, personnel, and technical operations.

Characteristic Duties and Responsibilities

1. sets up, operates, cleans, and provides routine maintenance for the hemapheresis equipment
2. connects patient/donor to the hemapheresis equipment, which involves performing venipunctures and may involve sterilely handling blood components and central venous lines (such as subclavian catheters and femoral catheters)
3. performs routine and complex hemapheresis for the collection of platelets, peripheral stem cells, and therapeutic blood exchanges by operating hemapheresis equipment to extract desired blood components from the patient/donor blood and returning the remaining blood back to patient/donor
4. performs various duties related to monitoring or providing support to patients/donors, such as:
 - a. monitors the physical condition of the patient/donor during the operation of the hemapheresis equipment, ensuring the stability of the patient/donor throughout various procedures
 - b. observes, reports, and records patient/donor adverse reactions to the hemapheresis procedures, drug administration, and vital signs to the clinical staff
 - c. notifies the physician of any unusual change in the condition of patient/donor
 - d. recognizes needs, physical characteristics, and behaviors of a variety of age groups and special needs of patients while monitoring the patient/donor

- e. assists in performing in cardiopulmonary resuscitation (CPR) procedures as needed
5. assists in the supervision of management of operations, such as:
 - a. assists in the scheduling of patients for apheresis, including decisions relating to appropriate time of harvest of stem cells from patient/donor
 - b. assists in determining work priorities for the shift, based on patient/donor requirements and available staff
 - c. assists in the implementation of new or modified techniques or equipment and instructs appropriate personnel in their use
 - d. maintains adequate supplies for the performance of hemapheresis procedures
 6. participates in discussions with the physician regarding patient/donor clinical status; answers technical questions as necessary
 7. sets up and operates other laboratory instruments (such as centrifuges, Hemacue devices, etc.)
 8. maintains records (such as patient/donor logs, treatment records and charts, and maintenance logs for hemapheresis and laboratory
 9. adheres to Food and Drug Administration (FDA) regulations and other standards of practice
 10. performs other related duties as assigned

Minimum Acceptable Qualifications

CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER

1. (a) Associate of Arts/Sciences degree that included (1) course work in general biology, chemistry, anatomy, physiology, psychology, pharmacology, and hemapheresis procedures or techniques and (2) 9 months of on-the-job training related to hemapheresis procedures or techniques in an FDA-licensed or registered private blood bank or a medical center blood bank

or

- (b) Any combination of training and experience that totals 18 months that provided a knowledge of generally accepted principles and practices of hemapheresis and their application to clinical and laboratory problems and that was of such scope, level, and quality as to assure the applicant's overall ability to undertake entry level hemapheresis technologist work. Such training and/or experience must be evaluated on the basis of their/its comparability to formal training programs like the one mentioned above.*

PERSONAL ATTRIBUTES NEEDED TO UNDERTAKE JOB

1. knowledge of hemapheresis equipment (such as connecting patient/donor to hemapheresis machine and setting up equipment)
2. knowledge of hemapheresis procedures (such as collection of platelets and peripheral stem cells)
3. knowledge of CPR and the monitoring of vital signs
4. knowledge of basic physiology, anatomy, psychology, chemistry, pharmacology, microbiology, and sociology
5. knowledge of phlebotomy techniques (such as venipunctures)
6. knowledge of aseptic techniques
7. knowledge of correct handling of potentially infectious specimens
8. knowledge of first aid techniques related to transfusion medicine (such as donor reactions)
9. knowledge of current practices and trends in hemapheresis procedures
10. knowledge of recording patient/donor reactions and other vital signs on medical charts
11. skill in evaluating, operating, and maintaining hemapheresis equipment
12. skill in maintaining laboratory equipment
13. skill in recording data on charts, using personal computers and logs
14. skill in preparing daily computer and manual work reports
15. skill in recognizing adverse reactions of patient/donor
16. skill in handling potentially infectious specimens
17. skill in utilizing CPR technique
18. skill in implementing FDA regulations and other standards of practice
19. ability to work under emergency conditions, i.e., when patient/donor has an adverse reaction to a hemapheresis procedure

*In substituting training and/or experience for formal training programs for hemapheresis technologists, it is recommended that, in order to ensure consistent application of these qualifications, the evacuation and verification of an applicant's training and/or experience be accomplished through the cooperative efforts of an experienced blood bank professional and the personnel office in a manner that will preserve the applicant's anonymity.

20. ability to interact professionally and effectively with patient/donor, family members, peers, and other medical center staff
21. ability to technically manage the hemapheresis procedures of a patient/donor in accordance with established standards
22. ability to establish the length of hemapheresis procedures for patient/donor
23. ability to modify techniques
24. ability to determine priorities
25. ability to schedule patient/donor for the hemapheresis procedures
26. ability to participate in discussions with physicians relating to patient/donor care
27. ability to evaluate quality and quantity of supplies and equipment
28. ability to order supplies and maintain records
29. ability to speak and write English well
30. ability to recognize needs, physical characteristics, and behaviors of a variety of age groups and special needs of patient/donor