Specialist in blood banking technology

Background

Specialists in blood banking (SBBs) technology perform and supervise routine and specialized tests in blood centers and hospital-based transfusion services. They use methodology that conforms to the Standards for Blood Banks and Transfusion Services of the American Association of Blood Banks (AABB). The majority of SBBs are technical supervisors and laboratory managers, and they also work in such areas as education and research.

SBBs must have a baccalaureate degree from a regionally accredited college or university with a major in any of the biological or physical sciences. In addition, they should complete an accredited program in blood bank technology. Most programs are 12 months in length and are conducted in hospitals or community blood centers or universities. The programs consist of didactic sessions combined with practical work.

Upon successful completion of an accredited SBB program, students may apply to take an examination to become certified as an SBB. The American Society for Clinical Pathology (ASCP) Board of Registry (BOR) in collaboration with the AABB offers this examination.

In addition to SBB certification, the ASCP also offers certification to the following blood bank professionals:

- Technologists in blood banking who earn the BB (ASCP) certification. The BB certification is intended primarily for those individuals employed in blood banking who have baccalaureate degrees but are not certified medical technologists (MTs). Some MTs may also take the BB certification examination because the certification allows them to demonstrate more comprehensive knowledge of blood banking.
- Apheresis technicians, who earn the AT (ASCP) certification. The AT certification provides recognition to those with a medical laboratory technician (MLT) certification or licensed practical nurse licensure who are working in the area of apheresis. These technicians have long been performing these tasks, but are not eligible for the hemapheresis practitioner certification.
- Donor phlebotomy technicians, who earn the DPT (ASCP) certification. The DPT certification provides recognition to those who are collecting units of blood from volunteer donors and is a way to demonstrate competence and knowledge.
The AABB is an international association of blood banks, which includes hospital and community blood centers, transfusion and transplantation services, and individuals involved in activities related to transfusion and transplantation medicine. AABB member facilities are responsible for collecting virtually all of the nation’s blood supply and transfusing more than 80% of that supply. Some 2,200 institutions (community and hospital blood banks, hospital transfusion services, and laboratories) and 8,500 individuals are members of the association.

The AABB, in cooperation with the Commission on Accreditation of Allied Health Education Programs (CAAHEP), accredits SBB technology programs. These programs offer education on a wide variety of subjects including genetics, immunology, blood groups, collection and storage of blood and components, donor processing, immune mechanisms, component therapy, transfusion of the newborn, complications of transfusion, general administration, personnel administration, education, and automated data processing.

The ASCP, BOR grants certification to SBBs upon completion of academic prerequisites, clinical laboratory education or experience, and successful performance on an examination.

Academic prerequisites
To be eligible for the SBB examination, applicants must satisfy the requirements of at least one of the following academic routes:

- Baccalaureate degree from a regionally accredited college/university including biological science, chemistry, and mathematics courses, and successful completion of a CAAHEP-accredited SBB technology program.
- MT (ASCP) or BB (ASCP) certification, and a baccalaureate degree from a regionally accredited college/university, and three years of full-time acceptable clinical laboratory experience in blood banking within the past 10 years. These three years of experience must be acquired postbaccalaureate degree and be under the supervision of a board-certified pathologist or an appropriately board-certified medical scientist.
- Master’s or doctorate degree in chemistry, biology, immunology, immunohematology, microbiology, allied health, clinical laboratory sciences, or an appropriately related field, from a regionally accredited college/university,
and three years of full-time acceptable clinical laboratory experience in blood banking within the past 10 years. These three years of experience must be acquired postbaccalaureate degree and be under the supervision of a board-certified pathologist or an appropriately board-certified medical scientist.

- Doctorate degree in chemistry, biology, immunology, immunohematology, microbiology, allied health, clinical laboratory sciences, or an appropriately related field, from a regionally accredited college/university, and two years of postdoctoral fellowship in blood banking within the past 10 years.

Clinical laboratory experience
To fulfill the experience requirement for the SBB examination, applicants must have clinical laboratory experience within the past 10 years in all of the following procedures:

- Serologic testing, which includes the following:
  - ABO, Rh typing
  - Antibody detection and identification
  - Cross matching
  - Tests for other blood group antigens
  - Direct antiglobulin tests
- Routine problem solving, which includes the following:
  - Transfusion reactions
  - Immune hemolytic anemias
  - Hemolytic disease of the newborn
  - Rh immune globulin evaluation
- Quality control/assurance
- Laboratory operations
- Donor blood, which includes the following:
  - Processing and confirmation testing
  - Donor selection, preparation, and collection
  - Component preparation for storage and administration

JCAHO  The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has no formal position on the delineation of privileges for SBBs. However, in regard to qualifications for SBBs, hospitals must comply with the following human resources (HR) and leadership (LD) standards from the 2004 Comprehensive Accreditation Manual for Hospitals:

- LD.3.70—The leaders define the required qualifications and competence of those staff who provide care, treatment, and services, and recommend a sufficient number of qualified and competent staff to provide care, treatment, and services
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• HR.1.10—The organization provides an adequate number and mix of staff consistent with the organization’s staffing plan
• HR.1.20—The organization has a process to ensure that a person’s qualifications are consistent with his or her job responsibilities
• HR.2.10—Orientation provides initial job training and information
• HR.2.20—Staff members, licensed independent practitioners, students, and volunteers can describe or demonstrate their roles and responsibilities, based on specific job duties or responsibilities, relative to safety
• HR.2.30—Ongoing education, including in-services, training, and other activities, maintains and improves competence
• HR.3.10—Competence to perform job responsibilities is assessed, demonstrated, and maintained
• HR.3.20—The organization periodically conducts performance evaluations

**CRC draft criteria**

When a hospital receives a request from an SBB to become a member of the hospital staff or to work within the hospital at the request of a physician, patient, or patient’s family member, or to do volunteer work within the hospital, it should not be the first time the hospital considers whether this type of practitioner should be granted privileges.

The policy covering SBBs should be drafted ahead of time by the board resolving any liability, peer review, and reimbursement issues. In addition, the board should review federal laws, state laws, and state and local licensing requirements. The advice of the medical staff should be considered as well as the needs of the community and the hospital’s mission and strategic plan.

Criteria should be in place to cover qualifications, scope of practice, and physician supervisory requirements.

The following draft criteria are intended to serve solely as a starting point for the development of an institution’s policy regarding this practice area.

**Minimum threshold criteria for requesting core privileges for SBBs**

Basic education and minimum formal training: Applicants must have completed a baccalaureate degree from a regionally accredited college/university, which included biological science, chemistry, and mathematics courses. In addition, applicants must have completed an accredited SBB technology program or have completed three years of full-time clinical laboratory experience.
experience in blood banking within the past 10 years. Certification as an SBB or MLT is recommended. 

Required previous experience: Applicants must be able to demonstrate that they have provided or supervised routine and specialized blood bank services for at least 100 patients in the past 12 months.

References

A letter of reference must come from the director of the applicant’s SBB technology training program. Alternatively, a letter of reference regarding competence should come from the director of the blood bank at the institution where the applicant most recently practiced.

Core privileges in SBB technology

Core privileges in SBB technology include but are not limited to the following:

• Test for blood group antigens, compatibility, and antibody identification
• Screen for transfusion-transmitted viruses
• Collect and process blood
• Investigate abnormalities such as hemolytic diseases of the newborn, hemolytic anemias, and adverse responses to transfusion
• Supervise, manage, and teach the collection, separation, delivery, and storage of blood components
• Support physicians and nurses in blood transfusion therapy

Reappointment

Reappointment should be based on unbiased, objective results of care according to the organization’s existing quality assurance mechanisms.

Applicants must be able to demonstrate that they have maintained competence by showing evidence that they have provided or supervised routine and specialized blood bank services for at least 100 patients annually over the reappointment cycle.

In addition, continuing education related to SBB technology should be required.
For more information

For more information regarding this practice area, contact:

American Association of Blood Banks
8101 Glenbrook Road
Bethesda, MD 20814-2749
Telephone: 301/907-6977
Fax: 301/907-6895
Web site: www.aabb.org

American Society for Clinical Pathology
Board of Registry
2100 West Harrison Street
Chicago, IL 60612
Telephone: 312/738-1336, ext. 1344
Fax: 312/738-5808
Web site: www.ascp.org/bor

Commission on Accreditation of Allied Health Education Programs
35 East Wacker Drive, Suite 1970
Chicago, IL 60601
Telephone: 312/553-9355
Web site: www.caahep.org

Joint Commission on Accreditation of Healthcare Organizations
One Renaissance Boulevard
Oakbrook Terrace, IL 60181
Telephone: 630/792-5000
Fax: 630/792-5005
Web site: www.jcaho.org
Privilege request form
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To be eligible to request clinical privileges in SBB technology, an applicant must meet the following minimum threshold criteria:

• Basic education and minimum formal training: Applicants must have completed a baccalaureate degree from a regionally accredited college or university, which included biological science, chemistry, and mathematics courses. In addition, applicants must have completed an accredited SBB technology program or have completed three years of full-time clinical laboratory experience in blood banking within the past 10 years. Certification as an SBB or MLT is recommended.

• Required previous experience: Applicants must be able to demonstrate that they have provided or supervised routine and specialized blood bank services for at least 100 patients in the past 12 months.

• References: A letter of reference must come from the director of the applicant’s SBB technology training program. Alternatively, a letter of reference regarding competence should come from the director of the blood bank at the institution where the applicant most recently practiced.

• Core privileges: Core privileges in SBB technology include but are not limited to the following:
  - Test for blood group antigens, compatibility, and antibody identification
  - Screen for transfusion-transmitted viruses
  - Collect and process blood
  - Investigate abnormalities such as hemolytic diseases of the newborn, hemolytic anemias, and adverse responses to transfusion
  - Supervise, manage, and teach the collection, separation, delivery, and storage of blood components
  - Support physicians and nurses in blood transfusion therapy

• Reappointment: Reappointment should be based on unbiased, objective results of care according to the organization’s existing quality assurance mechanisms.

Applicants must be able to demonstrate that they have maintained competence by showing evidence that they have provided or supervised routine and specialized blood bank services for at least 100 patients annually over the reappointment cycle.

In addition, continuing education related to SBB technology should be required.

I understand that by making this request I am bound by the applicable bylaws or policies of the hospital, and hereby stipulate that I meet the minimum threshold criteria for this request.

Applicant’s signature: ___________________________________________________________

Typed or printed name: _________________________________________________________

Date: _________________________________________________________________________
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