SVU Guidelines for Undergraduate Educational Programs in Vascular Ultrasound

I. PURPOSE

The Society for Vascular Ultrasound (SVU) “Guidelines for Undergraduate Educational Programs in Vascular Ultrasound” intends to provide guidance for administrators and educators developing and/or maintaining programs in Vascular Ultrasound, as well as guidance for students interested in choosing a program. While SVU is not the organization to set standards for educational programs, this document is intended to support the efforts of organizations developing and upholding educational standards outlined in the National Educational Curriculum (NEC) (www.jrcdms.org). These organizations include, but are not limited to, the American Registry for Diagnostic Medical Sonography (ARDMS) (www.ardms.org), Cardiovascular Credentialing International (CCI) (www.cci-online.org), Commission on Accreditation of Allied Health Education Programs (CAAHEP) (www.caahep.org), Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS) (www.jrcdms.org), and Joint Review Committee on Education in Cardiovascular Technology (JRC-CVT) (www.jrccvt.org). While the SVU recognizes and supports the success and contributions of individuals who have followed alternative educational pathways to achieve competence in vascular sonography, the SVU believes that the next step in elevating the profession is through mandated undergraduate and post-graduate education.

II. GOALS

The goal of the undergraduate educational program in vascular ultrasound is to prepare competent students with cognitive, psychomotor, and affective skills and experience necessary to: 1) perform patient examinations and assessments while respecting the dignity of each person, 2) acquire and analyze data using ultrasound and related vascular technology, 3) provide a summary of findings to aid in patient diagnosis and management, and 4) use independent judgment and systematic problem solving to produce high quality diagnostic information and optimize the complete patient study.

III. ESSENTIAL PROGRAM CHARACTERISTICS

Vascular ultrasound education must be constructed of three essential sections: classroom, student laboratory, and clinical experience which should be covered during a minimum of an 18 month full-time program (part-time will need to be longer). The curriculum must cover the broad range of noninvasive vascular examinations (arterial lower and upper extremities, venous lower and upper extremities, extracranial and intracranial cerebrovascular, and abdominal vasculature) and in as much depth as needed for graduates to competently and independently perform complete
examinations on a variety of patients, as well as successfully pass the ARDMS or CCI certification exam. Program faculty must be both appropriately credentialed and competent in teaching, and the program must be supported by an institution that is dedicated to providing students and staff with appropriate space, policies, and support to achieve outcomes with a high level of success. SVU highly recommends that programs seek accreditation through CAAHEP. These characteristics are further described in the following sections.

IV. INSTITUTION

Classroom
The vascular ultrasound program may be based in any of the following institutions:
  a. Hospital or clinic
  b. Community/junior college
  c. College or university
  d. Post-secondary vocational, technical, or proprietary school

Clinical
The undergraduate educational program in vascular ultrasound should preferably provide students with a minimum of 12 months (approximately 1600 hours) of clinical experience in vascular ultrasound performing patient exams. However, the clinical experience would ideally provide students the opportunity to practice all types of vascular exams required to sit for board examinations. Clinical site(s) should be accredited through ICAVL or ACR. A primary clinical instructor must be named at each clinical site, which is responsible for the student’s experience and evaluation. (See VI. Personnel.) The student should receive one on one instruction with a maximum student/instructor ratio of 2:1. Students must not be responsible for the daily operation of the laboratory at any time.

V. ADMISSIONS POLICIES
Undergraduate educational programs that result in an associate degree or higher should require a high school diploma as a minimum pre-requisite for admission to the program, in addition to pre-requisite college level coursework as described in the National Educational Curriculum (NEC). A certificate program (non-degree) should have an associate degree in a health profession as the minimum level of education for admission. Pre-requisite college level courses and/or standardized test scores should include communication (composition and oral), algebra, physics, and human anatomy and physiology. Admissions policies must be advertised clearly to prospective students.

VI. PERSONNEL
SVU recommends that Undergraduate educational programs in vascular technology include the following staff who meets the recommended minimum qualifications:
Administrative Program Director
The program director must
a. have an earned undergraduate degree,
b. be credentialed in vascular technology,
c. have a minimum of three years clinical experience in vascular technology, and
d. have experience in program development and teaching

Medical Director
The medical director must be a licensed physician with at least three years experience in vascular technology interpretation, lab directorship and/or formal training as stated in the ICAVL/ACR Medical Director Requirements. Preferably the medical director will be credentialed in vascular technology or vascular interpretation.

Faculty
All didactic instructors should have the appropriate credentials for the subject being taught based on institutional requirements. Clinical instructors, those individuals overseeing the student's clinical rotation, must be credentialed in vascular technology and have a minimum of three years clinical experience in vascular technology. There must be a clinical coordinator who oversees all the student's clinical sites. The clinical coordinator must be credentialed in vascular technology, have a minimum of three years clinical experience in vascular technology, and three years teaching or preceptor experience.

Clerical
Undergraduate educational programs in vascular technology must have the necessary clerical and other support staff to meet the assessment and record-keeping requirements.

VII. CURRICULUM CONTENT
SVU participated with other professional organizations in the creation of the National Educational Curriculum (NEC) and recommends its contents in planning curriculum content. This extensive document is housed at www.jrcdms.org.

VIII. ADMINISTRATIVE POLICIES
Student Guidance & Employment Counseling
Undergraduate educational programs should provide counseling services for students. These counseling programs should address both mental health issues and employment advising. Ideally, each program will oversee an active recruitment program, including visits and interviews by potential employers.
Student Records
Undergraduate educational programs should maintain records of each student's educational program, including grades and teacher comments. These records should extend to a report of the student's clinical training and include assessments and recommendations made by the student's employers and externship advisors.

IX. ASSESSMENT

Student Assessment
Student progress should be assessed at regular intervals throughout each course of the program, including clinical accomplishments. Knowledge, laboratory skills, clinical skills, and affective behavior skills need to be presented, practiced, and evaluated through a variety of means. Learning activities may include lecture, team based activities, reading assignments, assignments, laboratory assignments, presentations, reports, image critiques, and interpretation. Student assessments should also be performed through a variety of means including, but not limited to papers, assignments, presentations, quizzes, tests, lab proficiency exams, and clinical evaluations. Grading criteria should be given to students at the beginning of each course and graduation requirements clearly set prior to matriculation.

Program Assessment
Each program must have clearly documented methods of evaluating its success. Outcomes should include graduate pass rates on the certification exam, job placement, graduate surveys, employer surveys, student surveys, faculty surveys, and attrition rates. The program must also have a means to evaluate the relevancy of its curriculum and be able to adapt the curriculum to change as needed as a result of these outcomes.

(03/11/2010)