ASSOCIATION OF SURGICAL TECHNOLOGISTS (AST)

Proponent of House Bill 1805 Regulating the Practice of Surgical Technology and Surgical Technologists

SURGICAL TECHNOLOGISTS IN PENNSYLVANIA

Surgical technologists are allied health professionals who are an integral part of the team of medical practitioners providing surgical care to patients. Their role is commonly referred to as the "scrub" role. Surgical technologists practice under the direct supervision of surgeons and act as the surgeon's co-pilot. Among their many duties, the surgical technologist actively anticipates the needs of the surgeon by passing instruments and supplies to the surgeon during a procedure; maintains the sterile integrity of the operating field to prevent surgical infections; manages complex surgical equipment throughout the surgery; and handles surgical specimens, such as biopsy tissue. Surgical technologists participate in every surgery and often specialize in one or more areas including orthopedics, neurology, and cardiovascular.

As of April 2018, Pennsylvania healthcare facilities employ approximately 3,900 surgical technologists, of which roughly half are certified.

POLICY GOAL: REQUIRE HIRING OF EDUCATED AND CERTIFIED SURGICAL TECHNOLOGISTS

The Association of Surgical Technologists (AST) — through its Pennsylvania State Assembly — has a policy goal of requiring the Certified Surgical Technologist (CST) credential as a condition of employment for newly-practicing surgical technologists. HB1805 proposes that in order to practice surgical technology in the State of Pennsylvania, one would have to (1) successfully complete a nationally-accredited surgical technology program; (2) obtain and maintain the CST credential issued by the National Board of Surgical Technology and Surgical Assisting (NBSTSA); and (3) engage in continuing education annually. All currently employed surgical technologists and graduates of U.S. military surgical technology programs would be grandfathered into practice but would need to engage in continuing education going forward.

HB1805 contains a grandfather clause, which ensures continued employment of currently employed surgical technologists. The certification requirement would only apply to NEW surgical technologists entering the profession.

1 Bureau of Labor Statistics (BLS), May 2017 data; reported March 2018.
2 The legislation does not preclude any licensed practitioner from performing surgical technology tasks or functions if that licensed practitioner is acting within the scope of his or her license.
PUBLIC POLICY CONSIDERATIONS

_Surgical technologists are the only surgical team member with no minimum competency requirements._ The unregulated practice of surgical technology can create a risk of patient harm. While The Joint Commission (JHACO) and Centers for Medicaid and Medicare Services (CMS) have _generalized_ guidelines regarding surgical personnel, neither has rules or regulations _specific_ to the credentialing and competency of surgical technologists. Studies show that credentialed surgical technologists can positively impact patient safety. As such, the baseline educational and competency requirements associated with certification will ensure that Pennsylvania’s surgical patients are in the most capable hands.

THE ROLE OF THE SURGICAL TECHNOLOGIST

Pre-surgery, the surgical technologist plays a role in:
- Preparing the "sterile field" using specific procedures (sterile technique) to setup sterile surgical instruments, supplies, drapes, and solutions;
  - *Sterile field* refers to surfaces that sterile objects, such as surgical instruments, may contact. The sterile field includes the area immediately around a patient's surgical site that is prepared for a surgical procedure.
- Conducting initial count of necessary instruments and sponges, with the circulator nurse;
- Assembling sophisticated surgical equipment and ensuring proper functioning of equipment;
- Preparing patients for surgery by washing, shaving, and disinfecting incision sites;
- Participating in positioning and draping patients; and
- Observing patients' vital signs, checking charts, and assisting surgical team members into sterile gowns and gloves.

_Skillful pre-surgery technique protects patients from life-threatening surgical site infections, malfunctioning equipment, and undue delays during the procedure._

During surgery, the surgical technologist acts under the direct supervision of the surgeon. The tech is positioned in proximity to the surgeon, and the surgeon relies on the tech throughout the surgery to:
- Pass instruments and supplies to the surgeon;
- Prepare and pass specimens, as appropriate;
- Assist surgical team in minimizing patient exposure to hazardous materials, communicable diseases and bloodborne pathogens;
- Operate complex surgical equipment, such as lasers, robots, sterilizers, and diagnostic equipment;

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3 The Minnesota Adverse Health Events Reporting Act requires public dissemination by healthcare facilities of certain adverse medical events. Further analysis of this data from 2009-2013, revealed that adverse surgical events were 32% less in hospitals that required certification for all employed surgical technologists. Further, data from a 2012 AST survey of Virginia hospitals that utilized only credentialed personnel, such as surgical technologists (a practitioner closely responsible for preventing surgical site infection (SSI)), showed an 11% reduction in costs associated with extended hospital stays due to SSIs.
• Conduct count of necessary instruments and sponges, with the circulator nurse, to ensure no objects are left inside the patient; and
• Maintain highest standard of sterile technique during the procedure.

Surgical technologists must constantly anticipate the surgeon's needs and think many steps ahead, as every minute a patient is in surgery increases the risks related to anesthesia and bleeding.

Post-surgery, the surgical technologist, along with the circulator nurse, performs a final count of sponges and instruments to ensure no foreign objects remain inside the patient, which could lead to serious infections, disability and — in rare cases — death.

THIS LEGISLATION PROMOTES ACCREDITATION, CERTIFICATION AND CONTINUING EDUCATION

Accredited Curriculum

Nationwide, there are over 400 CAAHEP-accredited surgical technology programs. Accredited programs are generally twelve to twenty-four months resulting in a certificate or an associate's degree. The core curriculum includes anatomy, physiology, microbiology, pharmacology and anesthesia, medical terminology, surgical asepsis, sterilization techniques, assembling and operating surgical equipment including lasers and robotics, medical ethics, basic and advanced surgical techniques, and basic and advanced surgical operative procedures. Furthermore, students of accredited programs receive extensive, supervised clinical experience.

CAAPHEP-accredited programs apply a curriculum that incorporates "human factors." Long adopted by the airline industry — with proven safety improvements — implementing human factors safeguards the patient and surgical team and is recognized by performance experts to reduce medical errors and improve quality of care. Currently, Pennsylvania has 27 CAAHEP-accredited surgical technology programs.

Certification to Assess Competence

Acquiring the Certified Surgical Technologist (CST) credential means passing an objective competency exam, which determines if an individual has acquired both theoretical and practical knowledge of surgical technology. Certified individuals possess mastery of a broad range of skills related to surgical procedures, aseptic technique, and patient care.

Continuing Education

Continuing education is extremely important in the increasingly evolving field of surgical technology and keeps practitioners current with surgical techniques and equipment. Continuing Education demonstrates an ongoing commitment to quality patient care. HB1805 calls for 15

4 Commission on Accreditation of Allied Health Education Programs (CAAHEP).
hours of continuing education annually for both CSTs and surgical techs who are not certified but are otherwise qualified to practice in the State.

**EFFECTIVE PUBLIC POLICY WITH BROAD SUPPORT**

**Current Surgical Technology Laws**


**Surgeons Support Surgical Technologist Certification**

The following statement was revised by the American College of Surgeons (ACS) Committee on Perioperative Care and the revision was reviewed and approved by the ACS Board of Regents at its June 2016 meeting.

"The ACS strongly supports the following: Adequate education and training of all surgical technologists, the accreditation of all surgical technology educational programs, and the examination for certification of all graduates of accredited surgical technology educational programs."

**No New Wage Costs to Hospitals**

*Bureau of Labor Statistics* data indicates no correlation between higher wages and regulation of the profession. Average annual income of surgical technologists’ correlates strongly with the cost of living in each state.

**Negligible Cost to the State**

Of the state legislatures and legislative research councils that have formally reviewed the certification bill contemplated here, none has determined that this legislation would result in a fiscal impact. The proposed law would be enforced as part of the routine healthcare facility licensing process.

**No Licensure or Registration Required**

Certification is a competency standard that does not invite the costs associated with registration or licensure. AST’s legislative model represents the least intrusive regulation available, as it does not involve the costs and resources associated with creating regulatory oversight or the need for establishing a scope of practice associated with licensed healthcare professionals.
CERTIFICATION OF SURGICAL TECHNOLOGISTS CAN INCREASE QUALITY AND REDUCE COSTS

Surgical Site Infection (SSI) and Healthcare Costs

According to the Agency for Healthcare Research and Quality (AHRQ), “AHRQ studies focused on inpatient hospitalizations have shown that for patients undergoing surgery in the hospital, SSIs are known to be a common complication of care. Approximately 3 percent of hospitalized patients who contract an SSI die from it. Having an SSI can add 7 to 10 days to a hospital stay and add up to $27,600 to the cost of hospital care.” During surgery, the surgical technologist is responsible for maintaining a sterile operating environment and directly assists in preventing surgical site infections. As such, the training and education that accompanies certification would contribute to the overall effort of protecting patients and saving lives.

CERTIFICATION OF SURGICAL TECHNOLOGISTS CAN PROTECT PATIENTS

Facilities Employing Certified Surgical Technologists Can Have Lower Infection Costs and Fewer Adverse Medical Events

Due to the fact that the surgical technology profession is largely unregulated, empirical data and studies analyzing surgical technologists’ contributions to patient outcomes are rare. By and large, studies examining adverse medical and surgical events are not publicly available, which makes analysis difficult; however, some data are available:

- The Minnesota Adverse Health Events Reporting Act requires public dissemination by healthcare facilities of certain adverse medical events:
  - Independent/additional analysis of Minnesota’s 2009-2013 data revealed that reported adverse surgical events (wrong body part, wrong procedure, foreign retained objects) occurred 32% less often in hospitals that required education and certification for surgical technologists compared to hospitals without the same requirement.
  - Foreign retained object incidents occurred 55% less in hospitals that required certification of surgical technologists compared to hospitals without the same requirement.
- Analysis of data from Virginia revealed that facilities utilizing only credentialed surgical technologists reduced costs associated with extended hospital stays - due to surgical site infection - by 11%.

Due to confidentiality of root cause analyses of medical events, it is difficult to assign fault to particular personnel. Nevertheless, data shows that healthcare facilities that emphasized competent, credentialed surgical personnel experienced better patient outcomes.

THE CERTIFICATION REQUIREMENT IS EFFECTIVE PUBLIC POLICY THAT PROTECTS PATIENTS

Despite their critical role during surgeries, surgical technologists are the only member of a surgical team who are not required to meet minimum threshold competency requirements. Surgical patients do not have the privilege of choosing their surgical support team. HB1805 would establish objective, baseline standards and ensure that all patients in Pennsylvania’s operating rooms will be in the most capable hands across all surgical team members.