Partial Nephrectomy
We are focused.

Surgical instrument and scope reprocessing products.

RUHOF
First in Enzymatic Detergent Cleaning Technology

www.ruhof.com  1-800-537-8463
Are They Really Clean?

Contaminated endoscopes have been linked to more health care associated infections than any other medical device.

Be sure with Ruhof ATP Complete® Contamination Monitoring System

While infected scopes pose a huge problem for medical facilities HAIs can be acquired anywhere... a robotic arm, surgical instrument, or even a computer keyboard. Ruhof's ATP Complete® Hand-Held Contamination Monitoring System – with medical-grade Test® Swab and Test® Instrusponge™ – makes it possible to measure any surface in your facility for microbial contamination, helping to lower the risk of HAIs to patients and staff.

With ATP Complete® you can:
• Identify problem areas with easy to use, reliable results IN JUST 15 SECONDS
• Track ATP hygiene monitoring results with user-friendly database Monitoring Software
• Utilize outcomes to identify contamination sources and develop improved cleaning protocols
• Assure patient and staff safety as HAIs are reduced in the workplace.

Copyright ©2013 Ruhof Corporation
393 Sagamore Avenue, Mineola, NY 11501
Tel: 516-294-5888 Fax: 516-248-6456
For More Information 1-800-537-8463 www.ruhof.com

1 Stated in the 2008 CDC/Healthcare Infection Control Practices Advisory Committee (HICPAC) Guideline for Disinfection and Sterilization in Healthcare Facilities
AquaBrush™

THE ONLY TOTALLY
SUBMERSIBLE CORDLESS
Surgical Instrument
Cleaning Brush

NEW!

Eliminates
Manual Scrubbing for
Easier, More Efficient
Instrument Reprocessing

- Rechargeable - cordless
- Durable and lightweight
- Engineered for underwater operation
- Ergonomically designed non-slip pistol grip fits comfortably in your hand
- Easy push button control
- Disposable cleaning brush heads in two sizes
- Includes two lithium batteries with Fast Charger

For More Information Contact Ruhof at
1-800-537-8463  www.ruhof.com

Includes
6 Scrubbing Brushes
and Fast Charger
Partial Nephrectomy

JAVANTÉ BELL, CST, CSA

The purpose of this article is to render a brief conspectus of the various aspects of a partial nephrectomy. This article provides an insight into the complexities of the procedure, from the surgical technologist’s viewpoint. A review of renal anatomy, post-operative treatment and potential complications also will be discussed.

Conference Keynoter Announced

Meet Your SARC Representatives

In Any Way You Can, Take the Time to Make a Difference ROY ZACHARIAS, CST, FAST
Is Freedom Really Free? L GENE BURKE, CST, FAST
So Much More Than a Glorified Janitor CHRISTIAN J CLARK, CST
Importance of Maintaining Your Certification
Around the US

ADVERTISER’S INDEX

PRESIDENT’S MESSAGE
STATE ASSEMBLY
FINDING MY CALLING
FEATURE
UPCOMING PROGRAMS

GET SOCIAL WITH AST
As we enter into November our thoughts become focused on family and giving probably more than anytime throughout the rest of the year. Many of us find ourselves giving back to the community as we volunteer our time and resources to help the less fortunate members of our communities. This may be to assist an individual or an entire family that is experiencing hard times and does not have a place to live or the opportunity to eat a warm meal.

I have become more aware and involved in community service because of the inspiration I have received during the past six years through my involvement with AST’s Community Outreach event, which is held every year prior to the start of the AST national conference. All it takes is one look into the eyes of someone that is filled with despair and you understand the importance of giving. I invite every member of our great association to identify an opportunity in which you can bring a glimmer of hope to at least one person this season. I am sure there are many members who already volunteer and I commend you for taking the time and responsibility to make a difference in the lives of everyone involved. Giving is an important part of life. A few years ago, I was reminded of a time in my life when I had to scrounge the drawers and dig under the cushions of the couch to find just one more penny that I could take to the store to buy groceries. This time when I walked into the grocery store I wasn’t giving any thought as to how much I could spend. I passed a young couple at a coin counting machine and saw them later in the store putting a loaf of bread back on the shelf saying that it cost too much. Remembering my experience, I walked up to them and handed them all the money I had in my wallet. I told them that I had been in the same situation they were in and I hope that my concern for their well-being would always be remembered and that I cared. I never saw them again, but I know that I made a difference in their lives.

I invite every member of our great association to identify an opportunity in which you can bring a glimmer of hope to at least one person this season. I would like to leave you with a quote from John Wesley. He said: “Do all the good you can, by all the means you can, in all the ways you can, in all the places you can, at all the times you can, to all the people you can, as long as ever you can.”
Sun’s Out! Surf’s Up! Try out your skills on a surf board — take a lesson where the beach culture began — there’s even a museum celebrating the tradition of “Hanging 10” in Oceanside!

Or try:

Whale watching on Point Loma! Panda watching at the San Diego Zoo! Shakespeare watching at the famed Old Globe Theater! Zydeco dancing at the Bon Temps Social Club! All in nearby Balboa Park.

And:

Walk over to the famed Gaslight District for flamenco dancing; choose from 11 Italian restaurants; find fresh Sushi; sports bars; deli and of course, pizza.

Lots more to do! Explore with us in 2016!
Details will be posted on www.ast.org.
AST News and Current Events

AT A GLANCE

CONFERENCE

2016 SAN DIEGO CONFERENCE KEYNOTER ANNOUNCED

Brad Montgomery is a master presenter who will be presenting on “The How’s & Wise of Happiness at Work” during AST’s Opening Ceremonies. He teaches people how to use happiness to boost productivity, creativity, innovation, sales and profits. He turns typical meetings into transformational events using the power of happiness.

He has transformed audiences in all 50 states and on four continents. His clients include Microsoft, Verizon, the FBI (yes, that FBI), the CIA (yes, that CIA), and the IRS (where he withheld 30% of his best jokes).

Brad specializes in using humor, interactivity, sound, music and visuals to ignite the audience so that attendees can use happiness as a tool in their lives and jobs.

Catch Brad live Thursday morning, June 2. Stay tuned for more conference details, and as we announce our featured speaker lineup!

START PLANNING FOR SAN DIEGO
June 2-4, 2016, with preconference May 31-June 1, 2016

Nicknamed “America’s Finest City,” San Diego has so many attractions, it’s ideal to visit and bring your family, too! From its zoo and Sea World to the USS Midway Museum and old town and Balboa Park, there is something for everyone to enjoy. Not to mention great beaches to visit and watch for amazing marine life.

Conference Hotel:
Sheraton San Diego Hotel & Marina
1380 Harbor Island Drive
San Diego, CA 92101

PINS FOR SAN DIEGO

We’re already making it easy for you to plan your trip to southern California for next year’s conference. Check out our Pinterest page to get the lowdown on the eateries, shops and family friendly attractions while visiting San Diego. We’ve pinned city maps, transportation maps, hotel information and popular local spots.

While you’re pinning, check out our professional interest board, teaching tools and our popular humor board.

Follow us at http://pinterest.com/assosurgtechs/

ON A MISSION

INTERESTED IN MEDICAL MISSIONS?

Ever considered being a part of a medical mission trip? Maybe you feel like you should give back to the less fortunate or maybe you just like reaching out to those in need, but are unsure how to jumpstart your plans to participate in a medical mission trip. There’s a resource to help you get started on your mission.
Operation Giving Back is a program of the American College of Surgeons and was created for the volunteer surgeon. OGB recognizes the team nature of surgical care delivery and the critical contributions of all surgical professionals. OGB attempts to include information relevant to all members of the surgical team.

Their resources page for the surgical team offers lists of how to get active in serving on medical missions. To view this list, visit our website, www.ast.org, and click on About Us – Medical Missions.

**SCHOLARSHIPS**

**APPLY FOR A MEDICAL MISSION SCHOLARSHIP**

Have you recently served on a medical mission trip? Apply for assistance to help cover funds occurred while serving. The Foundation for Surgical Technology assists individuals who volunteer for medical missionary work. All applicants must be active AST members with currency. (A member is eligible to receive this award one time only.)

Other than being a member with current, other eligibility requirements include:

- All applicants must provide a description of their membership history – join date and any AST involvement.
- All applicants must provide official documentation from the mission program they have described.
- All medical missions must include official recipients documenting the costs incurred by the individual and all costs must be shown in dollars. All assistance is determined after the medical mission trip has occurred and the appropriate documentation has been provided.
- Two letters of recommendation must be provided.

### SCHOLARSHIPS

**STUDENTS! APPLY FOR ASSISTANCE NOW**

The purpose of the scholarship is to encourage and reward educational excellence as well as to respond to the financial need demonstrated by the surgical technology student and offer assistance to those who seek a career in surgical technology.

The selection process is based on academic excellence and financial need combined, and scholarships are awarded based on the information provided on the application and the transcript. Applicant must provide official course fee schedule from the educational institution for the courses they are taking, in addition to official transcripts and a mentor reference form.

#### Eligibility Requirements

1. Applicants must be currently enrolled in an accredited surgical technology program and eligible to sit for the NBSTSA national surgical technologist certifying examination. **Be sure to fill in the information on the student application that requires the CAAHEP school code or provide proof of ABHES surgical technology program accreditation.**
2. Applicants must demonstrate superior academic ability.
3. Applicants must have a need for financial assistance.

**ALL APPLICATIONS MUST BE POSTMARKED BY MARCH 1, 2016.**
As I was returning from a Georgia State Assembly meeting, knowing that my deadline for this article was quickly coming due, I thought about our military and the veterans of our great country. My mind quickly went back to AST’s National Conference in Washington, DC. I had written something then, too. I decided to share that with you.

As I stand here today, amongst these rolling hills, my thoughts go out to the ones who lie beneath.

American Royalty beneath an eternal flame, just a few hundred feet away lies others that have played a part in our country, Congressman, Supreme Court Justices and even Generals to bear.

Up the hill and around the winding road, there is some others that are guarded every moment of every day, no matter what the weather brings to May, men and women without a name but gave the price for us today.

Go on up a little higher and there is a house, sitting high upon a hill, overlooking this sacred ground, for once a Southern General lived. Standing on the porch you can look to a sea of small granite stones that are neatly in rows. Beneath those markers are men, women, daddies, mamas, sons and daughters. For here they rest beneath this hallowed and sacred ground.

As I walk amongst these small markers, not amounting to much, I realize just how much they mean. For you see, these men and women gave all they had for Freedom really isn't free.

In each one of our states, and I dare to say probably each county or district, there is a place, THAT sacred place, where the men and women of uniform are placed to rest. On this upcoming Veteran’s Day, let us celebrate them, their lives and their memory. For without their sacrifice, we would not be free today.

We owe a debt to them, both resting and living, but there are others that we owe a debt that we must not forget. The ones that are left behind while their loved ones are serving in a foreign land or at home, fighting and serving this great nation. The wives, children, parents and siblings. They all have sacrificed time and precious memories that cannot be replaced: the birth of a child, the first word, first step or first tooth; graduations, weddings and even funerals. The families of our veterans paid the highest price as they gave their loved one to us.

Is freedom really free? No, it’s not. So on this special day, which was signed into law by President Gerald R Ford in 1975, let us honor these great men and great women for the sacrifices that they have made and continue to make each and every day. Take your family to one of these sacred pieces of land, share a story or use the time to explain to your children what these brave soldiers, sailors, airmen and marines gave for us to be living in the “Land of the Free” and why our country is still the “Home of the brave!”
Studying for the CST Exam? There’s an App for That!

The only AST-authored study guide app is unmatched, giving you more than 1,300 questions to study and review right in the palm of your hands.

The app includes six tests that preps you for taking the CST examination sponsored by the National Board of Surgical Technology and Surgical Assisting.

Study with confidence whenever and wherever you are!

**AST Study Guide App Features:**

- 6 practice exams, each featuring 175 questions
- 2 bonus science review sections, for a total of 330 additional review questions
- Study in whatever time you have by selecting a question range that fits your schedule
- Options include taking the exams in a random or chronological order
- Get immediate answers and explanations to each question so you can maximize your learning and determine which areas you might need more review

**User testimonials:**

“Great study app! Practical, useful, easy. Totally worth the money and better than lugging around text books to study.” – B Marchington

“Very helpful … passed my certification test only using this app” – T Bowers

“If you’re practicing for your national it’s a very good app to practice off of” – M Chang
### ARC STSA Workshops

**In Conjunction with the 2016 Instructors Forum**

**Friday February 12 2016 · Houston Texas**

DoubleTree by Hilton Houston Downtown

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30am</td>
<td>Registration</td>
<td></td>
</tr>
</tbody>
</table>
| 8am–3pm    | **Accreditation Fundamentals for Educators (AFE)**  
ARC STSA Board of Directors  
6CEs |
| Noon–1pm   | Lunch (on own)                             |                                 |
| 3pm–5pm    | **Site Visitors Training (SVT)**  
Advanced*  
ARC STSA Board of Directors  
2CEs |

**SVT Workshop Prerequisites:**
- Must have attended Beginning Site Visitor Training and completed at least one site visit in the last twelve months prior to attending Advanced Site Visitor Training.
- If registration and hotel info:
  - Please visit: [http://tinyurl.com/ASTAFE2016](http://tinyurl.com/ASTAFE2016)

The AFE workshop fulfills the 1/1/09 ARC STSA policy that requires all new program directors to attend an AFE workshop within one year of their appointment.

### ARC STSA Registration Fees

- AFE  
  - $100
- SVT Advanced  
  - Free

<table>
<thead>
<tr>
<th>Date:</th>
<th>Member/Cert/License no:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Contact:**

**Email:**  
City: State: Zip:
Institution/Employer:
Title:
Name:
Date: Member/Cert/License no:
Phone:  
Phone 2:  
Email:

- Check for payment enclosed and made out to ARC/STSA
- Please send registration and check/money order to:  
**ARC STSA, 6 W Dry Creek Circle, Suite 110, Littleton, CO 80120**

---

### GET CONNECTED

Staying connected with AST and your fellow peers in surgical technology has never been easier. Join in on ongoing conversations or send us a private message on our Facebook page. Follow us on Twitter and Instagram. Take a break and peruse our Pinterest page, especially our humor section, with content pulled specially for you, the tech!

It’s never been so easier to stay in the know and embrace the power of the surgical technology community!
## Instructors Forum Fees

<table>
<thead>
<tr>
<th>Date</th>
<th>Member/Cert no</th>
<th>Name (please print)</th>
<th>Name of Institution/College/Program</th>
<th>Circle title</th>
<th>Address</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
<th>Home phone</th>
<th>Work phone</th>
<th>Email</th>
<th>Credit card billing address (if same as above, leave blank)</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
</tr>
</thead>
</table>

### Instructors Forum Fees (Includes Instructors Forum Education Sessions, Friday Reception and Saturday Lunch)

- AST member: $275
- Nonmember: $300
- Guest lunch ticket: ______ x $35
- Money order/check enclosed for $__________ (No purchase orders accepted)
- VISA □ MC □ AmEx □ Name that appears on card

- Total: $__________

### Attendee Information

- AST member: $275
- Nonmember: $300
- Guest lunch ticket: ______ x $35
- Money order/check enclosed for $__________ (No purchase orders accepted)
- VISA □ MC □ AmEx □ Name that appears on card

- Total: $__________

### Hotel Information

- Doubledtree by Hilton Houston Downtown
- 400 Dallas Street, Houston, TX 77002
- Phone: 713-759-0202; Fax: 713-759-1166
- Rates: $169 per night, single or double occupancy plus 17% tax.
- Hotel reservation deadline: January 21, 2016, or until room block is full.
- Separate registration is required for Accreditation Fundamentals for Educators (AFE Workshop) and Site Visitor Training. Register at www.arcstsa.org.

### Dates

- **FRIDAY, FEBRUARY 12, 2016**
  - 10 am–5 pm: AST Registration
  - 8 am–3 pm: Accreditation Fundamentals for Educators (AFE)
  - 3–5 pm: ARC/STSA Site Visitor’s Training (SVT)

- **SATURDAY, FEBRUARY 13, 2016**
  - 7 am–6 pm: Registration
  - 7 am–5 pm: Exhibits
  - 10–11:50 am: Efficiency in the OR to Ensure Patient Safety and Cost Savings
  - Noon–12:50 pm: Lunch
  - 1–1:50 pm: Optimizing Retention
  - 2–2:50 pm: ADA – Essential Functions Required of Students for Admission & Progression in Surgical Technology
  - 2:50–3:50 pm: Transitioning from Certificate to AAS Program: Strategies & Discussion
  - 4–4:50 pm: The CST, the Student & Medical Missions
  - 5–5:50 pm: Integrative Learning: Helping Students Connect Across the Curricula

### Instructors Forum Ad

- 2016 Instructors Forum Ad.indd   10/7/15   6:28 PM

### Form for Instructors Forum Registration

**Register online at www.ast.org on the opening page. Click on Instructors Forum registration.**

- Mail completed registration to:
  - AST, 6 West Dry Creek Circle, Ste 200,
  - Littleton, CO 80120

- Fax completed registration to:
  - 303-694-9169

- Register by phone: 800-637-7433, ext 2514 (8 am–5 pm MT)
Partial nephrectomy is one of two types of urological surgical approaches to address bilateral or solitary renal malignancies widely known as renal cell carcinomas, or RCC. RCC is a type of cancer that develops within the lining of the kidney’s tubules. The exact cause is unknown, but according to a service of the US National Library of Medicine and the National Institutes of Health: family history, high blood pressure, polycystic kidney disease, smoking, dialysis treatments and Von Hippel-Lindau disease may increase one’s risk of developing renal tumors. This particular procedure is considered a nephron-sparing surgery, or NSS, as opposed to a radical nephrectomy, which is a more aggressive approach that involves the complete surgical removal of a grossly malignant and metastatic kidney(s).

RENAL ANATOMY

The kidneys are located along the borders of the psoas muscles and positioned, in oblique fashion, in the retroperitoneum. The kidneys and their associated adrenal glands are encompassed by perirenal fat that is enclosed in Gerota's fascia. The left kidney borders three structures: the tail of the pancreas, the left adrenal gland and the splenic flexure of the colon. The right kidney is in close proximity to the liver, the duodenum, the right adrenal gland and the hepatic flexure of the right colon.

Each kidney has a blood supply that is usually supplied through a single renal artery. The renal artery is located anterior to the renal pelvis and posterior to the renal vein. The right renal vein is a bit shorter than the left renal vein and accesses the inferior vena cava, IVC, through its lateral aspect. The left renal vein traverses anterior to the aorta where it links up with branches from the ipsilateral adrenal gland, gonad and a lumber vein before accessing the IVC.

The renal collecting system of the kidneys consists of the calyces,
the renal pelvis and ureter. Two or three major calyces are formed from the union of about eight to 12 minor calyces and then join the renal pelvis. The ureter is roughly 22 to 30 cm long and consists of three sections: the upper, middle and lower segments. The upper ureter extends from the renal pelvis to the upper border of the sacrum. The middle ureter lies over the sacrum and the lower ureter extends to the bladder.3

**HISTORY AND PHYSICAL**
For this article, the case reflects that of a 48-year-old male patient, who originally had consulted the urologist regarding a previous diagnosis of prostate cancer. After discussion about the diagnosis, medications, several treatment options, possible alternatives and potential side effects of a surgical intervention for that specific pathosis, he requested imaging for visual confirmation.4

The imaging technique utilized was a three-phase renal computerized tomography. The three-phase renal CT consists of noncontrast, postcontrast nephrographic and pyelographic phases. Coronal and sagittal reformats also were obtained and submitted with the source images.4 The noncontrast phase yielded no renal calculi or hydronephrosis; however, in addition to confirming the previous diagnosis, it also identified an exophytic, hypodense mass arising from the posterior upper pole of the left kidney that measured 3.9 cm transverse and 3.6 cm anterior to posterior (AP). The attenuation was near fluid. A few insignificant cortical hypodensities were noted as well. There were no ureteral or bladder calculi, but the bladder was distended, and scattered colonic diverticula were observed. There were faint soft tissue infiltrations of mesenteric fat, and the adrenals were unremarkable.4

The postcontrast nephrographic phase employed a homogeneous enhanced right nephrogram approach. A complex cystic mass with a solid nodular area of enhance-
Axial image of renal mass with measurements; left kidney

Axial image of renal mass with average 58.40 Hounsfield units and dev 14.57; left kidney
ment within the inferior lateral aspect of the lesion was observed at the posterior upper pole of the left kidney. The area of enhancement measured 1.2 cm transverse and 1.7 cm AP, and the overall dimensions of the lesion were 3.6 cm transverse, 3.7 cm AP and 3.9 cm cephalocaudad. There were no other parenchymal abnormalities identified. The left renal vein was homogeneously enhanced with no filling deficiencies. Retroperitoneal or periaortic lymphadenopathy was not observed. There were several subcentimeter normal morphologic periaortic lymph nodes and more faint soft tissue infiltration of the mesenteric fat.4

The pyelographic phase again confirmed a complex exophytic cystic mass at the posterior upper left kidney. There were no genitourinary (GU) filling deficits. Incomplete opacification of the urinary bladder was observed. The findings of the imaging tests were consistent with cystic renal cell carcinoma and surgical intervention was recommended.4

SURGICAL PROCEDURE
The patient was transported to the operating room and received a thoracic epidural nerve block from the anesthesiologist. He was placed in the supine position. Following induction, a Foley catheter was inserted without complications. Following induction, the patient was positioned in the right lateral decubitus position and the surgical team ensured the axillary roll and upper arm were properly placed and secured and all pressure points were padded. After the patient was safely secured to the OR table at the shoulders, hip and upper thigh, the table was lifted so as to open up the left flank for the incision.5

The abdomen was shaved and prepped by the circulator, and the surgical technologist assisted the surgeon by draping the patient. The time out was observed and the patient’s identity, correct side and site, correct procedure, etc, were vocalized and affirmed. The left 11th and 12th ribs were outlined with a marking pen and the incision was carried from the tip of the 11th rib down to the lateral side of the rectus abdominis muscle toward the umbilicus.5

Next, the subcutaneous tissue was cut with the Bovie electrocautery and the muscle layers, including the external and internal oblique muscles were taken down with a combination of electrocautery and blunt dissection. The transversalis fascia was scored with the Bovie and the transversus abdominis muscle was split using blunt dissection. After removing a 3-cm segment of the 11th rib to improve visibility, the retroperitoneal space and peritoneal cavity were observed and the peritoneal cavity was freed and directed anteriorly away from the kidney. The kidney was bluntly dissected in circumferential fashion from the lower pole to the upper pole within Gerota’s fascia. The ureter was identified and encircled with a vessel loop, tagged and placed off to the side. Blunt dissection was resumed to locate the renal hilum. Once the renal hilum was in sight, the fat that overlaid the upper pole of the posterior kidney was removed and the tumor was visually identified.5 Using one click of the Cosgrove clamp, the blood flow was interrupted. A Doppler ultrasound was utilized to confirm the blood flow occlusion and to verify the margins of the tumor in what was understood to be a test run for the crucial next steps. Electrocautery was used to score the tumor and 12.5 gm of mannitol was given.

The renal hilum was occluded with three full clicks of the Cosgrove clamp. The Doppler ultrasound was again used to verify the occlusion. The kidney was then iced with slush for a approximately 8 minutes. After the slush was removed, the initial dissection of the tumor began with Metzenbaum scissors. A Penfield dissector was used to dissect tissue away from the tumor and a small clip applier was used to clip the small vessels around the tumor. The tumor and its overlying fat were excised and sent to pathology.5

A 3-0 polyglactin 910 suture was utilized to close the partially opened collecting system. Other smaller bleeding vessels also were closed with 3-0 polyglactin 910 suture in a figure-eight technique. Absorbable hemostatic agents were applied to the renorrhaphy and a 0 polyglactin on a circle taper-1 (CT-1) suture was used to reapproximate the renorrhaphy around the absorbable hemostat. In order to further aid hemostasis, one of

This particular procedure is considered a nephron-sparing surgery, or NSS, as opposed to a radical nephrectomy, which is a more aggressive approach that involves the complete surgical removal of a grossly malignant and metastatic kidney(s).2

A 3-0 polyglactin 910 suture was utilized to close the partially opened collecting system. Other smaller bleeding vessels also were closed with 3-0 polyglactin 910 suture in a figure-eight technique. Absorbable hemostatic agents were applied to the renorrhaphy and a 0 polyglactin on a circle taper-1 (CT-1) suture was used to reapproximate the renorrhaphy around the absorbable hemostat. In order to further aid hemostasis, one of
the hemostatic agents was placed over the closed renorrhaphy and another agent was applied to the posterior of the renorrhaphy and the kidney. The kidney was unclamped after approximately 41 minutes of renal hypothermia and only minimal bleeding from the renorrhaphy was observed. After achieving hemostasis at the renorrhaphy, sterile compressed sponges and thrombin were applied to the upper pole of the kidney near the adrenal gland. A hemostatic agent was applied at the hilum. The vessel loop that was utilized to isolate the ureter was removed.\textsuperscript{5}

The Jackson-Pratt drain, or JP drain, was obtained by the surgical technologist prior to closing the fascial layers. It was passed, placed into position and secured with a 3-0 nylon suture and the grenade-shaped suction bulb was attached. The fascial layers were closed in two layers with a No 1 polydioxanone suture on a circle taper needle in a typical running fashion. The wound was irrigated with saline and staples were used to close the skin edges. The surgical wound and the drain site were dressed with sterile gauze, and secured with tape. The patient was repositioned into the supine position and prepared for extubation. After the patient was successfully extubated, he was transported to the intensive care unit without complications.\textsuperscript{5}

It is recommended that nephron-sparing surgery patients undergo CT scanning at a frequency of every six months for two years, annually, for the next five years, and then every two years thereafter.\textsuperscript{7}
POST-OPERATIVE MANAGEMENT

Patients that undergo nephron-sparing surgery, such as a partial nephrectomy, are typically transported to ICU following the procedure. The patient’s vitals, as well as their electrolytes and fluid balance, will be monitored in order to evaluate kidney function. The Foley catheter will usually remain for a short time following the procedure. Intravenous fluids are given to maintain proper hydration and medications are provided for pain management. Cautious movement is encouraged as tolerated by the patient.6

Partial nephrectomy patients are typically advised to schedule a follow-up visit in four to six weeks in order to evaluate serum creatinine levels and to undergo an intravenous pyelography. It is also recommended that nephron-sparing surgery patients undergo CT scanning at a frequency of every six months for two years, annually, for the next five years, and then every two years thereafter.7

POTENTIAL COMPLICATIONS

There are a vast number of complications which could develop from this type of procedure. Three of the most common complications are infection, hemorrhage and renal insufficiency. Minimizing the risk of infection is paramount to any postoperative management of surgical intervention. The administration of preoperative antibiotics to decrease the chances of developing an infection is of importance whether managing small, superficial wounds or large, deep wounds. Vacuum devices, such as the JP drain utilized for this case, also are essential following this procedure.8

Postoperative hemorrhage is usually self-resolving and may be confined to the retroperitoneum or may be observed in the presence of gross hematuria, decreased hematocrit or flank ecchymosis. Treatment is palliative in nature and may consist of volume resuscitation, serial hematocrits and bed rest. Re-exploration is considered the last resort option for severe unmanageable bleeding.7

Renal insufficiency is usually the result of transient ischemia during the surgical procedure and typically resolves. Attentive awareness of intraoperative measures, such as correcting electrolyte imbalances, utilizing mannitol, the incorporation of surface hypothermia and sustaining minimum arterial clamp time helps prevent this complication.7

AUTHOR’S NOTE

This article is dedicated to my wife, a US Army nurse, my beautiful twin daughters Aryanna Victoria and Natalya Elena, and my newborn son Vicente Elijah. You all are truly an inspiration and I love you with all my heart!

ACKNOWLEDGMENTS

Special thanks to urology providers Dr Lee and Dr Evans, fellow Army Reserve comrade “Barb” Myers, and all of my mentors (Keeley, Jon, Mike, Mrs B, and Mr Hinton) at Blanchfield Army Community Hospital, Fort Campbell, Kentucky, that selflessly supported my professional endeavors. HOOAH!

AUTHOR’S BIO

Javanté Bell, CST, CSA, received his surgical technology training at the United States Army Medical Department’s Operating Room Specialist Program at Joint Base San Antonio, in San Antonio, Texas. He received his first assistant training from Madisonville Community College, in Madisonville, Kentucky. He is currently employed at the Montgomery Surgery Center in Rockville, Maryland, assisting in general; ear, nose and throat; plastics; orthopedic; podiatry; obstetrics and gynecology; and ophthalmology services.

REFERENCES

1. Townsend CM; Beuchamp RD; Evers BM; et al. Sabiston Textbook of Surgery. The Biological Basis of Modern Surgical Practice. Saunders; 2012.
4. Blanchfield Army Community Hospital, Patient Health Record; 2013. Unpublished patient health record, patient name excluded due to HIPPA regulations.
PARTIAL NEPHRECTOMY

NOVEMBER 2015 1 CE CREDIT $6

RCC is a type of cancer that develops in the lining of the _______.

- Renal artery
- Renal vein
- Kidney’s tubules
- Liver

Each kidney has a blood supply that is usually supplied through _______.

- One renal artery
- Multiple renal arteries
- The inferior vena cava
- Multiple renal veins

Two or three major calyces are formed from the union of about ________ minor calyces, which then joins the renal pelvis.

- 6 to 8
- 8 to 10
- 10 to 12
- 8 to 12

Which ribs are lined with a marking pen?

- 4 and 5
- 2 and 11
- 11 and 12
- 6 and 7

After removing a segment of the 11th rib to improve visibility, the peritoneal cavity is freed and directed ________ away from the kidney.

- Posteriorly
- Circumferentially
- Laterally
- Anteriorly

A ________ is positioned over the renal artery in order to test the occlusion of blood flow to the upper pole of the kidney.

- Metzenbaum scissors
- Cosgrove clamp
- Penfield dissector
- Bovie

Partial nephrectomy patients are typically advised to schedule a follow-up in ________ following the operation.

- 2 to 4 days
- 2 to 4 weeks
- 4 to 6 weeks
- 12 days

The upper ureter extends from the renal pelvis to the upper border of the ________.

- Sacrum
- Bladder
- Middle ureter
- Renal artery

Which renal vein is a bit shorter?

- Right
- Left
- Inferior vena cava
- None of the above

Following induction, the patient was positioned in what position?

- Supine
- Right lateral
- Right lateral decubitus
- Left transverse

My address has changed. The address below is the new address.

Name ____________________________

Address __________________________

City __________ State __________ Zip __________

Telephone __________________________

☐ Check enclosed ☐ Check Number __________________________

☐ Visa ☐ MasterCard ☐ American Express

Credit Card Number __________________________

Expiration Date __________________________

Make It Easy — Take CE Exams Online

You must have a credit card to purchase test online. We accept Visa, MasterCard and American Express. Your credit card will only be charged once you pass the test and then your credits will be automatically recorded to your account.

Log on to your account on the AST homepage to take advantage of this benefit.
CE EXAM

Earn CE Credits at Home

You will be awarded continuing education (CE) credits toward your recertification after reading the designated article and completing the test with a score of 70% or better. If you do not pass the test, it will be returned along with your payment.

Send the original answer sheet from the journal and make a copy for your records. If possible use a credit card (debit or credit) for payment. It is a faster option for processing of credits and offers more flexibility for correct payment. When submitting multiple tests, you do not need to submit a separate check for each journal test. You may submit multiple journal tests with one check or money order.

Members this test is also available online at www.ast.org. No stamps or checks and it posts to your record automatically!

Members: $6 per credit
(per credit not per test)
Nonmembers: $10 per credit
(per credit not per test plus the $400 nonmember fee per submission)

After your credits are processed, AST will send you a letter acknowledging the number of credits that were accepted. Members can also check your CE credit status online with your login information at www.ast.org.

3 WAYS TO SUBMIT YOUR CE CREDITS
Mail to: AST, Member Services, 6 West Dry Creek Circle Ste 200, Littleton, CO 80120-8031
Fax CE credits to: 303-694-9169
E-mail scanned CE credits in PDF format to: memserv@ast.org
For questions please contact Member Services - memserv@ast.org or 800-637-7433, option 3.
Business hours: Mon-Fri, 8:00a.m. - 4:30 p.m., MT

Learning Doesn’t End – Refresh Your Knowledge
Reinforce Your Skills with the AST Skin Prep Book, $17.99

Student studying a coronary angioplasty? Tech on call facing an unfamiliar procedure? First-time learners or veteran practitioners – the Skin Prep book provides a comprehensive reference on more than 30 skin prep procedures organized by body area.

Pick up new strategies and refresh forgotten skills with the Special Considerations section that focuses on factors which apply to many types of skin prep.

For ease of reference, skin preps that require attention to specific parameters are presented separately.

Simple graphic illustrations enhance learning.

The consistent format facilitates active, engaged learning and fact retention.

To order online, visit www.ast.org or by phone: 800-637-7433.
We are always looking for CE authors and surgical procedures that haven’t been written about or the latest advancements on a commonplace surgery. You don’t have to be a writer to contribute to the Journal. We’ll help you every step of the way, AND you’ll earn CE credits by writing a CE article that gets published! Here are some guidelines to kick start your way on becoming an author:

1. An article submitted for a CE must have a unique thesis or angle and be relevant to the surgical technology profession.
2. The article must have a clear message and be accurate, thorough and concise.
3. It must be in a format that maintains the Journal’s integrity of style.
4. It must be an original topic (one that hasn’t been published in the Journal recently.)

WRITE A CE

How to Get Started
The process for writing a CE can be painless. We are here to assist you every step of the way and make sure that you are proud of your article.

- Write to publications@ast.org, and state your interest in writing, and what topic you would like to author.
- Submit an outline of your proposed topic for review. Once the outline is returned to you for approval, begin writing your manuscript. Getting your outline approved will save you time and effort of writing a manuscript that may be rejected.
- Submit manuscript, as well as any art to illustrate your authored topic. You will be notified upon receipt of receiving the manuscript and as well as any changes, additions or concerns.

Things to Remember:

- **Length:** Continuing education articles should run a minimum of 2,000 words and a maximum of 5,000 words.
- **References:** Every article concludes with a list of ALL references cited in the text. All articles that include facts, history, anatomy or other specific or scientific information must cite sources.
- **Copyright:** When in doubt about copyright, ask the AST Editor for clarification.
- **Author’s Responsibility:** All articles submitted for publication should be free from plagiarism, should properly document sources and should have attained written documentation of copyright release when necessary. **AST may refuse to publish material that they believe is unauthorized use of copyrighted material or a manuscript without complete documentation.**

Don’t delay! Become an author today. Write to us at publications@ast.org
As an 18-year-old general duty Navy hospital corpsman, I was working on a medical floor and intensive care unit at the Naval Regional Medical Center in Orlando, Florida. It was during this time that I decided that I wanted to become a surgical technologist. I recall a recovery room nurse telling me not to. “You’ll be a glorified janitor,” he said. Thirty years later, I am still waiting for the glory. Although I came to understand his sentiment, it did not keep me from doing what I wanted to do. Frankly, his job looked pretty boring to me.

I knew that hospitals didn’t close. I knew that I would have to take call and work on holidays and weekends. I knew that a life in healthcare was a life of sacrifice. I knew that operating rooms can be dangerous, hostile and cold. That did not deter me. My surgical technology class at the Naval School of Health Science started with 30 people. By graduation, there were only seven left … a 77% attrition. It turns out that there is more to working in an operating room than putting on a pair of scrubs. I graduated second in my class.

As a surgical technologist at the Portsmouth Naval Hospital in Virginia, I got to rotate through all of the surgical services. Otherwise, I spent my time cleaning, wrapping and sterilizing instruments. It was during this time that I not only learned to be a surgical technologist, but I learned organizational skills. And, I learned to work as part of a team. I have not since experienced the level of comradery that is found in the military. Before my enlistment ended, I found myself on a Mediterranean cruise that traveled over the Arctic Circle as a part of a surgical team. Far from the Disney cruise that I took a few years back, I can look back fondly at that experience on an amphibious assault ship.

My first job outside of the military was in south Florida. I was a Certified Surgical Technologist with three years of experience and it paid $8.20 an hour. That was the number that was written on the back of a business card at my interview. That number burnt into my retina that day. To add perspective, at the time, unskilled laborers such as baggage handlers at the Ft Lauderdale airport, were making $18 an hour. They were fortunate to be a part of a union. Did I run over to the airport for one of those jobs? No, I was happy and grateful to be a surgical technologist.

I remember the written job description that stated that a surgical technologist needed only low spatial relationship ability. When the person that authored that job description needs a laparoscopic procedure, they better hope that the surgical technologist assisting with the video camera and instrumentation does not have low spatial ability.

I greatly enjoyed the work of a surgical technologist. To me, it was the most important job in the hospital. I enjoyed being on the front-line of healthcare, passing instruments and otherwise assisting surgeons. In my mind, there was no one in the facility that was more of a defender of asepsis and the sterile field. In a recent conversation with a hospital administrator, I mentioned that I was a surgical technologist. He said, “Whoa! You were high class. I was an orderly.” I didn’t have the heart to tell him that I was a glorified janitor.

I have found my calling. Ultimately, I am an animal of the operating room. From my beginning as a surgical technologist, it is the toughest job that I ever loved. My surgical experience and education led to other positions. I went on to work as an industry representative in various positions including work with surgical lasers. A move to Nashville in 2002 prompted a career change. It was then that I went on to become an intraoperative neurotechnologist at Vanderbilt University Medical Center. Today, I work as a clinical manager at SpecialtyCare, a provider of outsourced clinical services for operating rooms, including: surgical assisting, perfusion, minimally invasive surgical support, as well as intraoperative neuromonitoring. Although I have not scrubbed in many years, I still get to work aside and admire the important job of the surgical technologists.
One Card. Countless Rewards.

The Association of Surgical Technologists Visa credit card features great benefits including:

- Online access to view account information and make payments
- Auto Rental Insurance¹ automatically covers the repair or loss of a rental car, whenever you use your Visa card to pay for the car rental
- Convenient cash access at thousands of ATMs
- Visa’s Zero Fraud Liability Protection² from verified unauthorized purchases online and off
- Travel Accident Insurance¹ at no additional charge
- Travel Assistance Services¹ including pre-trip planning, legal referrals and medical referrals

The Association of Surgical Technologists Visa credit card — a credit card that gives back every time you make a purchase.

A percentage of every purchase made on your Association of Surgical Technologists credit card goes back to Association of Surgical Technologists. Now you can support your favorite organization by doing all of the things you normally do*.

Thank you for using the Association of Surgical Technologists Visa Platinum Rewards Card. You are supporting the AST mission of ensuring quality patient care.

Learn more information or apply for your own card at: https://cardpartner.com/app/A279F

Cards issued by UMB Bank, n.a.

¹Certain terms and conditions apply; see the Rewards Rules and Rewards Brochure that accompany the card for details.
²See the Rewards Rules and Guide to Benefits that accompany your card for details. Auto Rental Insurance and Travel Accident Insurance provided at no additional cost. Certain exclusions and conditions may apply. Visa’s Zero Liability Policy covers U.S.-issued cards only and does not apply to certain commercial card transactions or any transactions not processed by Visa. You must notify your financial institution immediately of any unauthorized use. For specific restrictions, limitations and other details, please consult your issuer.
Importance of Maintaining Your Certification
Continuing education for certification is not only a commitment to your profession, but also a dedication to education and learning. By obtaining continuing education (CE) credits you meet established standards for certification, and you have the opportunity to test your knowledge and refresh your medical mind set.

Today, almost all professionals find it necessary and mandatory to participate in continuing professional education. Professionals seek to enroll in programs that go beyond their original degree status in order to preserve current skills, maintain certification and gain advance knowledge to help them grow professionally. Society has come to expect that members of the medical profession maintain competence to be able to provide the highest quality of patient care. Therefore, practitioners turn to continuing education as their main avenue toward professional upkeep.

WHAT ARE YOUR OPTIONS TO EARN CE CREDITS FOR YOUR CREDENTIAL?

The Association of Surgical Technologists (AST) facilitates the approval and processing of your CE credits for the CST or CSFA certification renewal through the National Board of Surgical Technology and Surgical Assisting (NBSTSA). There are a variety of opportunities to earn CE credits, which may be obtained from one source or a myriad of sources. All CE credits submitted are examined for compliance with the policies set by the AST Board of Directors and the NBSTSA to ensure conformity toward your credential by the NBSTSA.

EMPLOYER-SPONSORED IN-SERVICES

An in-service is a continuing education activity that is provided in-house through the employer to improve skills or to learn about new developments in the surgical practice of surgical technology and surgical assisting. If your employer sponsors or provides funds for an employee(s) to attend a conference, seminar, symposium, workshop or complete any other type of CE activity sponsored by an organization other than the employer, the program must be AST approved in order to have the CE credits count toward certification renewal.

In addition, three free online CE credits are offered annually. Over a four-year period, members can earn 12 free credits. For the three credits offered this year, turn to page 520.

The beauty of accessing and paying for credits online, is that the credits automatically post to your record. No waiting for confirmation, you can instantly see how many credits you have earned and how many you need to stay current in your certification!

To access our online credit packages or our free CE articles for credits, visit our CE Credit Online Resource Center by logging on to www.ast.org and clicking on the “Professionals” tab, then “Earn CE Now.”

AST CE ONLINE RESOURCE CENTER

AST offers a variety of options to stay connected with your profession and up to date on procedures.

AST Member CE Credit Package Deals

- Package 1: 21 CE Credit Package for $35 (2007)
- Package 2: 18 CE Credit Package for $30 (2008)
- Package 3: 10 CE Credit Package for $15 (2009 - Neurosurgical Specialty)
- Package 4: 10 CE Credit Package for $15 (2009 - Orthopedic Specialty)
- Package 5: 12 CE Credit Package for $19 (2010 - General)
- Package 6: 12 CE Credit Package for $19 (2010 - General)
- Package 7: 17 CE Credit Package for $29 (2011 - General)
- Package 8: 8 CE Credit Package for $13 (2012 - General)
- Package 9: 17 CE Credit Package for $29 (2013 - General)
- Package 10: 22 CE Credit Package for $37 (2013 - General)
- Package 11: 22 CE Credit Package for $37 (2013 - General)
- Package 12: 13 CE Credit Package for $21 (2013 - General)
- Package 13: 17.5 CE Credit Package for $29 (2013 - General)
- Package 14: For Members Only. Log on to the AST website with your login information and click on Earn CE Now
- Package 15: 16.5 CE Credit Package for $27 (2015)

In addition, three free online CE credits are offered annually. Over a four-year period, members can earn 12 free credits. For the three credits offered this year, turn to page 520.

The beauty of accessing and paying for credits online, is that the credits automatically post to your record. No waiting for confirmation, you can instantly see how many credits you have earned and how many you need to stay current in your certification!

To access our online credit packages or our free CE articles for credits, visit our CE Credit Online Resource Center by logging on to www.ast.org and clicking on the “Professionals” tab, then “Earn CE Now.”

AST MONTHLY JOURNAL – The Surgical Technologist

The articles in this publication provide valuable knowledge about latest topics related to the industry. Accompanying the article every month is a CE exam. Take the exam and send your answers into AST. This can be done on hard copy via mail, or online at www.ast.org. These credits may be applied toward your recertification. There are no expiration dates on the CE articles/tests and you may go back to the beginning from 1980 to present to read the articles and take the tests.
AST’S ANNUAL NATIONAL CONFERENCE
Not only is this a great opportunity to meet your fellow CSTs and CSFAs, you can earn a batch of credits all within one setting attending the conference! It’s never too early to start planning for the next conference. There also are additional CE opportunities during conference events, as certain sponsors and exhibitors offer credits just for stopping by their booths. To get more information on the national conference, visit our website and click on About Us, Conference.

LOCAL STATE ASSEMBLY
Your state assembly offers continuing education seminars and may provide guidance in pursuing legislation in your state. Announcements of state assembly meetings and workshops in your state are published in the “Upcoming Programs” section of your monthly issue of The Surgical Technologist, on your state’s website and at www.ast.org under “State Assemblies.” Your state assembly also will contact you about upcoming workshops in your area. Keep checking your Journal for new meeting dates and announcements. It’s a great way to get involved on the state level and gain valuable CE credits in the process.

COLLEGE CREDITS
College courses must be relevant to the surgical practice of surgical technology and surgical assisting and completed at an institution that is accredited by an organization recognized by the US Department of Education. Surgical assistant college courses submitted for CE credit(s) must be completed at a CAAHEP-accredited surgical assistant program. If you have questions about whether or not the program you attended or are planning to attend is CAAHEP accredited, you can contact the Accreditation Review Council on Education in Surgical Technology (ARC/STSA). You can visit their website at www.arcst.org.

WRITING FOR HEALTH-RELATED PUBLICATIONS
When authoring a CE article to be published for a magazine or journal, the article must be a health-related publication. Additionally, the publisher must have a peer-review process in place in order to determine if the article meets the publishing standards of the magazine or journal. In fact, you can earn CE credit by writing for AST’s journal, The Surgical Technologist! If you have any questions regarding what is involved in writing for the Journal or how to begin the process, write to us and include what topic you would like to cover. Send outlines or letters of interest to publications@ast.org. Always wanted to write, but don’t know how to get started? We’ll help you through the entire process. Express your interest today!

INSTRUCTION OF HEALTH PROFESSIONALS
This method for earning CE credits does not apply to those CSTs and CSFAs who provide lectures or lab/clinical demonstrations as part of their job duties, such as educators, preceptors and medical sales representatives. This applies to CSTs and CSFAs that serve as instructors or lecturers during an AST-approved CE workshop, programs, or speaker at an employer-sponsored in-service: eg, wound closure workshop at a state assembly meeting.

How Many CE Credits Do I Need To Renew My Credential?
AST works with a four-year certification cycle. Certified Surgical Technologists (CST) must earn 60 CE credits before the four-year cycle expires to renew their credential. Certified Surgical First Assistants (CSFA) must earn 75 CE credits before the four-year cycle expires to renew the credential.

How Long Do I Have To Earn My CE Credits?
Your certification is an important tool in your profession. Even though you may earn CE credits up until 11:59 pm on the date of your certification expiration, AST strongly encourages you to have your fulfillment of approved CE credits on file with AST at least six months beforehand. This way you will have time to earn CE credits that qualify for renewal of your credential in the event that some of your credits are not approved by AST. Once your credential has expired, the window to earn qualifying CE credits is gone – there is no grace period and no extension. The only option then is by exam through the NBSTSA.
How Do I Submit My CE Credits to AST?

Checklist before Submitting Credits to AST

Submit your CE credits to AST for processing and approval. CE credits are processed within 10 business days from the date AST receives them. You will receive a CE credit confirmation letter in the mail for your records and may check your CE credit history online at anytime by using your personal login information at www.ast.org.

*Important Note: This does not mean your credential is automatically renewed.

Once your CE credits are approved and on file with AST, proceed to step 2. You must submit a renewal application to the NBSTSA to complete your recertification.

Three Ways to Submit Your CE Credits

1. You can mail your credits to: AST, 6 West Dry Creek Circle, Ste 200, Littleton, CO 80120-8031
2. You can fax CE credits to: 303.694.9169. Do not mail credits that were previously faxed.
3. You can also email scanned CE credits in PDF format to: memserv@ast.org. Do not mail credits that were previously emailed.

My Approved CE Credits Are on File with AST. When Will AST Mail Me My New Certification Card and Certificate?

Remember, completing the steps above does not mean your credential is automatically renewed. There is an additional step that is imperative for completion of your renewal. A renewal application is required by the NBSTSA. You may renew your credential up to six months in advance of your certification expiration date. Submit your CST or CSFA renewal application along with the renewal fee to the NBSTSA prior to your recertification expiration date. Failure to do so may result in additional fees by the NBSTSA. A renewal application is available at www.nbstsa.org.

You do not need to mail proof of your CE credits to NBSTSA. Your CE credits are automatically on file with the NBSTSA.

In today’s rapidly changing world, it is imperative that surgical technologists and surgical assistants remain current in their knowledge of the evolving industry. In order to maintain professional competence and currency, surgical technologists and first assistants need to engage in frequent, appropriate continuing professional education. In some states, mandatory certification as a condition of employment is either in place or under discussion in an attempt to mandate participation in continuing education. It is important to recognize that the profession has entered an era in which the standard knowledge, skills and attitudes necessary to remain a significant player in the field will require continual updating.
Active state assemblies are the future of the Association of Surgical Technologists’ strength and success. The Association of Surgical Technologists gives special recognition to those state assemblies that demonstrate outstanding leadership within their states.

► To recognize excellence in leadership and member development, communication, education and community relations
► To encourage quality state management
► To recognize with distinction and visibility that efforts and results of meaningful activities that build a strong state
► To benchmark standards

Qualifications and Rules:
► Hold one annual meeting per year
► Hold at least two workshops per year
► Take part in legislative activity
► Create marketing activity
► Experience a membership increase of 3% or higher over the previous year
► Media coverage
► Student involvement
► Instructor involvement
► Public education
► Up to five (5) awards will be awarded per year

When your state meets the above criteria, please fill out the attached eligibility form and submit your completed form to the State Assembly Department at the AST National Office by January 31, 2016.

Selection
All certification forms received in the AST national office by January 31, 2016 will be eligible for one of the five National AST Leadership Awards. Each year the winners will be selected by the SALC Committee of AST. Each entry will be judged independently and the winners will be announced at the 47th AST Annual National Conference in San Diego, California.

YOUR STATE’S REWARD: What recognition will my state receive?
1. Every state assembly awarded the Leadership Award will receive recognition at the AST National Conference Open Ceremony.
2. Each state official on the state board will receive a pin representing “Winner of the State Assembly Leadership Achievement Award.”
3. Each state winner receives recognition in a feature article about their state in The Surgical Technologist.
4. Each state who wins a Leadership Award will receive a pennant that announces the state as a winner of this prestigious award to hang at state meetings.

Eligibility and Entry Preparation:
1. Any AST approved state assembly may submit an entry.
2. Entry form MUST be completed by the state president for the period of January 1–December 31, 2015.
3. Entry must be typed or computer-generated in the format that follows.
4. Additional information to support qualification will be accepted.
5. A state may receive this award only once every three years.
6. All entries will become the property of AST and will not be returned.
7. Winners of the Leadership Award will be determined by the cumulative total of points earned.

Entry Deadline: All entries must be received by January 31, 2016.
Apply online at www.ast.org – State Assemblies – State Assembly Awards.
Entry Deadline: All entries must be received by January 31, 2016.

Active state assemblies are the future of the Association of Surgical Technologists’ strength and success. The Association of Surgical Technologists gives special recognition to those state assemblies that demonstrate outstanding leadership within their states.

To recognize excellence in leadership and member development, communication, education and community relations

To encourage quality state management

To recognize with distinction and visibility that efforts and results of meaningful activities that build a strong state

To benchmark standards

Qualifications and Rules:

Hold one annual meeting per year

Hold at least two workshops per year

Take part in legislative activity

Create marketing activity

Experience a membership increase of 3% or higher over the previous year

Media coverage

Student involvement

Instructor involvement

Public education

Up to five (5) awards will be awarded per year

When your state meets the above criteria, please fill out the attached eligibility form and submit your completed form to the State Assembly Department at the AST National Office by January 31, 2016.

Selection

All certification forms received in the AST national office by January 31, 2016 will be eligible for one of the five National AST Leadership Awards. Each year the winners will be selected by the SALC Committee of AST. Each entry will be judged independently and the winners will be announced at the 47th AST Annual National Conference in San Diego, California.

YOUR STATE’S REWARD: What recognition will my state receive?

1. Every state assembly awarded the Leadership Award will receive recognition at the AST National Conference Open Ceremony.

2. Each state official on the state board will receive a pin representing “Winner of the State Assembly Leadership Achievement Award.”

3. Each state winner receives recognition in a feature article about their state in The Surgical Technologist.

4. Each state who wins a Leadership Award will receive a pennant that announces the state as a winner of this prestigious award to hang at state meetings.

Eligibility and Entry Preparation:

1. Any AST approved state assembly may submit an entry.

2. Entry form MUST be completed by the state president for the period of January 1–December 31, 2015.

3. Entry must be typed or computer-generated in the format that follows.

4. Additional information to support qualification will be accepted.

5. A state may receive this award only once every three years.

6. All entries will become the property of AST and will not be returned.

7. Winners of the Leadership Award will be determined by the cumulative total of points earned.

AST in partnership with MySurgeon is offering this reduced price to a select group of members for a limited time who will provide feedback to AST on their user experience. Take advantage of the savings and sign up today with AST online at www.ast.org or by calling AST member services, 800-637-7433.

Be part of the “A-Team” — Know what your surgeon needs before they arrive in the OR with MySurgeon!
The State Assembly Leadership Committee (SALC) is a standing committee of the Association of Surgical Technologists. The committee members shall be appointed by the AST President with approval to the Board of Directors for a term of two years with the possibility of reappointment of a second and third term. The committee members are selected by evaluation of their leadership skills, expertise and talent within the State Assembly arena.

THE MISSION STATEMENT OF THE STATE ASSEMBLY LEADERSHIP COMMITTEE IS: “To encourage and oversee growth and leadership of the State Assemblies of AST through education, membership and guidance.”

SOME OF THE RESPONSIBILITIES OF THE COMMITTEE MEMBERS INCLUDE:
- State Assemblies
- Exchange professional knowledge through networking to stimulate continued interest within the state assemblies
- Recruit qualified candidates to be placed to run for elected position in their states
- To represent each state with accuracy, professionalism and confidentiality
- Follow strict adherence to all AST State Assembly Bylaws and procedures
- Accept and complete required reports and assignments within the given timeframe
- Maintain open communication with AST Board of Directors and the AST staff

The SALC consists of eight members who represent individual states and one member who is a military advisor. The addition of a military advisor is a recent change to the committee and will provide a valuable reference person for both the committee members and state assemblies. Having an advisor that is knowledgeable of the military that can provide suggestions as to how to better serve our military members will help state assemblies to improve our connection with this much appreciated community.

The State Assembly Leadership Committee is currently composed of:

Pam Buff, CST, FAST
p_buff@yahoo.com
Represents Idaho, Illinois, Massachusetts, Michigan, Wisconsin, Wyoming
Pam has been very involved with her own state’s assembly for the past 20 years. During this time, she has served as secretary, vice president and is currently serving her second term as the Oklahoma State Assembly president. Pam’s hobbies include spending time with her husband on their Harley’s and working with her registered quarter horse, Pepper.
L Gene Burke, Jr, CST, FAST  
lburke@augustatech.edu  
Military Advisor — Represents all states  
Gene has been a member of AST since 2004. He is currently serving his first appointed term as the military liaison for the SAL Committee. With more than 20 years of surgical technology experience, Gene graduated with a diploma in surgical technology in 1992 from the Naval School of Health Science, in Portsmouth, Virginia. He began working at the Naval Hospital Charleston where he obtained the position of senior surgical technologist working in OB/GYN, orthopedics and oral/maxillofacial surgeries. While at Naval Hospital Charleston, Gene wrote and taught an orthopedic surgical technologist course for all orthopedic techs to complete in order to assist their surgeons during the orthopedic cases. He also worked in the dental department assisting with all minor surgeries, and reorganized the dental surgical suite in which he was awarded the Navy Achievement Award. Gene became certified in 2005 when he accepted the position as the surgical technology program director at Augusta Technical College in Augusta, Georgia. Gene has served two terms as a director for the Georgia State Assembly, two terms as secretary and is currently the vice president.

Terri Crosson, CST  
tercross@gmail.com  
Represents Connecticut, Delaware, Maryland, Montana, New Jersey, Rhode Island  

Terri has been a CST for more than seven years and works at GRU in Augusta, Georgia. She specializes in sports medicine surgery as well as ENT. Terri is currently serving her second term as president for the Georgia State Assembly, where she also served as a vice president and board of director. She also is an adjunct professor at Augusta Technical College teaching central sterile processing. During her free time, she teaches fitness classes at area gyms and enjoys kayaking, biking, running and cooking. She has four boys ranging from 26 to 10 years old.

Jessica Elliott, CST, RN, FAST  
jelliott@holmescc.edu  
Represents Arkansas, Colorado, Indiana, Nebraska, Nevada, New Hampshire/Vermont, Oregon  

Jessica is beginning her second year of her first term as a member of SALC. Jessica has been a Certified Surgical Technologist for more than 20 years and is the program director of surgical technology at Holmes Community College in Mississippi. In addition to representing her state of Mississippi as a national delegate for a number of years, she has served the Mississippi Association of Surgical Technologists in all board and officer roles. Jessica has participated as a selected presenter at both the state and national level. In her spare time, she enjoys cooking, reading and traveling with family and friends.

Rochelle Duplechian, CST  
rduplechiancst@yahoo.com  
Represents Georgia, Minnesota, Mississippi, South Carolina, Tennessee, Texas  

Rochelle Duplechian has been a CST since 1995 and has been a member of AST since 1995. She on the Louisiana board of directors since 2007, and is currently serving as president of LASA. She takes pride in serving her state and her fellow CSTs. She is employed by Our Lady of Lourdes in Lafayette, Louisiana, where she specializes in robotics, general, gastric and burn procedures. Her hobbies include reading, traveling and playing games with her grandchildren and spending time with her friends and family.
Shondra McGill, CST
semc528@aol.com
Represents Kentucky, Missouri, New York, West Virginia, North Carolina, Ohio
Shondra has been a CST since 2005 and a member of AST since 2003. In 2006, she was nominated as a founding board of director for the New Jersey State Assembly and since has served as an officer, secretary and vice president. She was recently appointed to the SALC committee. She has worked for the Princeton HealthCare System for 10 years and currently works in the Monroe Surgical Center, a growing joint venture between Princeton HealthCare System and Princeton Orthopedic Associates. Shondra enjoys camping, kayaking, walking, hiking and traveling with family and friends.

Kim McDuffie, CST
scrubgirl124@yahoo.com
Represents Arizona, Florida, Louisiana, New Mexico, Virginia, Washington
Kim has been a CST for seven years, and began her AST involvement as president of the Association of Surgical Technologists Student Association. She has served on the Texas State Assembly in various offices and is currently serving as president. She enjoys doing cowboy-mounted shooting with her husband and being outdoors with her family.

Sherridan Poffenroth, CST, CRCST
sepoff@q.com
Represents Alabama, California, Iowa, Kansas, North Dakota, Oklahoma
Sherridan is beginning her first term on the SAL Committee. She has been a CST for eight years and holds a bachelor’s degree in education. Sherridan has been involved with her state’s assembly for eight years as director, vice president and is currently closing out her second term as president. Sherridan works at Spokane Valley Ambulatory Surgery Center and at Holy Family Hospital in Spokane, Washington, as well as an adjunct instructor in the allied health department at Spokane Community College. Sherridan is a mother of four and enjoys watching her kids play junior high and high school sports and spending time with her family and friends.

Kimberly Miller, CST, FAST, Chair
klucionmiller@aol.com
Represents Alaska, Hawaii, Maine, Pennsylvania, South Dakota, Utah
Kim is in her first term on the State Assembly Leadership Committee and is chair. She has been involved with the West Virginia State Assembly since its inception serving as vice president for five years and president for four. Kim is the recipient of FAST (Fellow of the Association of Surgical Technologist) and has served on the Job Task Analysis Committee for the NBSTSA (National Board of Surgical Technologist and Surgical Assistants). She is employed by Three Gables Surgical Hospital in Proctorville, Ohio, as a surgical technologist. In her spare time, she volunteers for the Make-A-Wish Foundation and enjoys spending time with her family, friends and her dog, Shadow.
AST is seeking the services of dedicated individuals interested in becoming part of AST’s leadership including national officers and members of AST national committees. In 2016, there will be five vacancies on the AST Board of Directors. Candidates for the Board of Directors, including the office of Secretary, will be elected by the House of Delegates at the AST National Conference in San Diego, May 31-June 4, 2016.

**Secretary – Two-Year Term**
**Board of Directors – Two-Year Term**

**Eligibility:**
All candidates for the Board of Directors must be active (CST with currency or CST, CSFA) members of AST for a minimum of three years immediately preceding nomination. Candidates for the office of Secretary must have served a minimum of one full term during the previous six years on the Board of Directors. Candidates for the Board of Directors must have served at least one complete term on a national committee, whether standing or special (ad-hoc), the NBSTSA, ARC/STSA or a complete two-year term as a director in a state assembly within the last eight years.

If you would like to run for elected office or be considered for a national committee appointment, you will need to complete a Consent to Serve form and a Curriculum Vitae. These forms can be downloaded from the AST website at [http://www.ast.org](http://www.ast.org). Click on About Us; then click on either Elected Offices or Appointed Offices to see detailed descriptions and download the required forms. If you have any other questions, you can contact Charlotte Stranahan, Administrative Coordinator at cstranahan@ast.org or 800-637-7433, ext 2501.

Completed forms must be returned to the Credentials Committee, AST Board of Directors, 6 West Dry Creek Circle, Ste 200, Littleton, CO 80120, by January 15, 2016.
UPCOMING PROGRAMS

AST MEMBERS: Keep your member profile updated to ensure that you receive the latest news and events from your state. As an AST member you can update your profile by using your login information at www.ast.org. You may also contact Member Services at memserv@ast.org or call 1-800-637-7433. AST business hours are Monday-Friday, 8 am - 4:30 pm, MST.

FLORIDA
Clearwater: November 7. Florida State Assembly. Title: A Cutting Edge Surgical Seminar. Location: Keiser University, 16120 US Hwy 19 N, Clearwater, FL 33764. Contact: Vilisity Stow or Max Obando, PO Box 600961, Jacksonville, FL 32260, 727-459-8194 or 904-244-5539, rvstow@gmail.com or guillermo.obando@jax.ufl.edu. 6 CE credits, pending approval by AST.

GEORGIA
Atlanta: March 12, 2016. Georgia State Assembly. Title: Emory Teaches the GASA. Location Emory University Hospital, 1364 Clifton Road, Atlanta, GA 30322. Contact: L. Gene Burke, Jr., PO Box 4131, Canton, GA 30114, 706-771-4191, lburke@augustatech.edu. 7 CE credits, pending approval by AST.

Tybee Island: September 10, 2016. Georgia State Assembly. Title: GASA Heads to the Beach! Location: Hotel Tybee, 1412 Butler Ave (For GPS Use) / 1401 Strand Ave (Business Office), Tybee Island, GA 31328. Contact: L Gene Burke, Jr, PO Box 4131, Canton, GA 30114, 706-771-4191, lburke@augustatech.edu. 8 CE credits, pending approval by AST.

HAWAII
Honolulu: November 14. Hawaii State Assembly. Title: 2015 Annual Business Meeting & Workshop. Location: Kapiolani Medical Center for Women and Children – Auditorium 2nd Floor, 1319 Punahou St, Honolulu, HI 96826. Contact: Ana Zarate, 91-925 Puahala St Apt U, Ewa Beach, HI 96706, 910-599-2086, ana_zarate1@aol.com. 6 CE credits, pending approval by AST.

IDAHO
Boise: November 7. Idaho State Assembly. Title: 2015 Fall Business Meeting and Conference. Location: Riverside Hotel, 2900 E Chinden Blvd, Boise, ID 83714. Contact: Leah Guill, 4340 Sawdust Place, Boise, ID 83716, 208-596-1774, leahmariewagner@gmail.com. 4 CE credits, pending approval by AST.

Boise: November 10. Idaho State Assembly. Title: Recovering from Addiction in the OR. Location: Grind Modern Burger, 705 W Fulton St, Boise, ID 83702. Contact: Leah Guill, 4340 Sawdust Place, Boise, ID 83716, 208-596-1774, leahmariewagner@gmail.com. 1 CE credit, pending approval by AST.

ILLINOIS
Peoria: March 5, 2016. Illinois State Assembly. Title: ISA Annual Meeting, Elections & Seminar. Location: OSF Saint Francis Medical Center, 530 NE Glen Oak Ave, Peoria, IL 61637. Contact: Marsha Brook, 1828 S 2nd Ave, Morton, IL 61550, 309-263-7495 or 309-264-4532, mbrook1@outlook.com. 4-5 CE credits, pending approval by AST.

INDIANA
Indianapolis: November 7-8. Indiana State Assembly. Title: ISA – Fall Workshop. Location: Franciscan St. Francis Health, 8111 S Emerson Ave, Indianapolis, IN 46237. Contact: Allyson Goodrich, PO Box 421673, Indianapolis, IN 46242, 317-450-1608, jmb51607@gmail.com. 11 CE credits, pending approval by AST.

LOUISIANA
Hammond: November 7. Louisiana State Assembly. Title: Fall Workshop. Location: North Oaks Medical Center, 15790 Paul Vega Medical Dr, Hammond, LA 70403. Contact: Peggy Varnado, PO Box 60445, Lafayette, LA 70596, 225-335-9539, Isa.ast.secretary@gmail.com. 6 CE credits, pending approval by AST.

Baton Rouge: April 2, 2016. Louisiana State Assembly. Title: Spring Workshop and Business Meeting. Location: Woman’s Hospital, 100 Woman’s Way, Baton Rouge, LA 70817. Contact: Bryan Wille, PO Box 60445, Lafayette, LA 70596, 225-278-
MARYLAND
Baltimore: March 19, 2016. Maryland State Assembly. Title: MDSA Spring Meeting/Elections and Workshop. Location: Franklin Square Hospital Center Conference Room D-F, 9000 Franklin Square Dr, Baltimore, MD 21237. Contact: Judith Arrindell or Sandra Araujo, PO BOX 23737, Baltimore, MD 21203, 443-992-1062 or 301-807-6052, jarrin7248@aol.com or araujos@kvfd.org. 7 CE credits, pending approval by AST.

MASSACHUSETTS
Lowell: November 7. Massachusetts State Assembly. Title: We Are All in This Together “Start to Finish.” Location: University of Massachusetts Lowell Inn & Conference Center, 50 Warren St, Lowell, MA 01852. Contact: Jayne MacPherson, 3 Webster St, Natick, MA 01760, 508-596-0859, beelines@aol.com. 5 CE credits, pending approval by AST.

MINNESOTA
Anoka: March 12, 2016. Minnesota State Assembly Spring Workshop. Location: Anoka Technical College, 1355 W Main St, Anoka, MN 55303. Contact: Melissa Stolp, 19414 Eaton St NW, Elk River, MN 55330, 763-229-2321 or 763-712-1278, halfpint71mel@aol.com. 7 CE credits, pending approval by AST.

NEBRASKA
Omaha: March 5, 2016. Nebraska State Assembly. Winter 2016 Workshop and Annual Meeting. Location: University of Nebraska Medical Center, 600 S 42nd St, Omaha, NE 68198. Contact: Casey Glassburner, 10011 N 151st St, Waverly, NE 68462, 402-580-0057, cglassburner@southeast.edu. 6 CE credits, pending approval by AST.

OMAHA
Omaha: August 13, 2016. Nebraska State Assembly. 2016 Summer Workshop. Location: CHI Health Lakeside, 16902 Lakeside Hills Court, Omaha, NE 68130. Contact: Casey Glassburner, 10011 N 151st St, Waverly, NE 68462, 402-580-0057, cglassburner@southeast.edu. 6 CE credits, pending approval by AST.

NORTH DAKOTA
Fargo: April 16, 2016. North Dakota State Assembly. Title: North Dakota State Assembly Spring Workshop 2016. Location: Essentia Health, 3000 32nd Ave S, Fargo, ND 58103. Contact: Nicole Gerhardt, 701-426-2943, nicolemgerhardt@yahoo.com. 7 CE credits, pending approval by AST.

OKLAHOMA
Oklahoma City: November 14. Oklahoma State Assembly. Title: OKSA Fall Conference. Location: Moore Norman Technology Center – South Penn Campus, 13301 S Pennsylvania, Oklahoma City, OK 73170. Contact: Jennifer Wilkerson, 34 SW 97th St, Oklahoma City, OK 73139, 405-613-0149, jastramski@hotmail.com. 7 CE credits, pending approval by AST.

RHODE ISLAND
East Greenwich: November 7. Rhode Island State Assembly. Title: Trauma Not Drama. Location: Intermountain Medical Center, 5121 Cottonwood St, Murray, UT 84157. Contact: Annette Montoya, PO Box 986, West Jordan, UT 84084, 801-889-5947, ast.utah@gmail.com. 4 CE credits, pending approval by AST.

UTAH
Murray: March 19, 2016. Utah State Assembly. Title: Are You Ready To 1st Assist? Location: New England Institute of Technology, 1 New England Tech Blvd, East Greenwich, RI 02818. Contact: Liana King, PO Box 986, West Jordan, UT 84084, 801-889-5947, ast.utah@gmail.com. 4 CE credits, pending approval by AST.

TEXAS
Port Arthur: January 30, 2016. Texas State Assembly. Title: Port Arthur Workshop. Location: Lamar State College, 1701 Procter St, Port Arthur, TX 77641. Contact: Stephanie Steele-Galchutt, PO Box 3381, Wichita Falls, TX 76301, 817-235-1660, TxStateAssembly@gmail.com. 8 CE credits, pending approval by AST.

Ft Worth: March 5–6, 2016. Texas State Assembly. Title: Best Little Workshop in Texas. Location: Radisson Hotel, 2540 Meacham Blvd, Fort Worth, TX 76106. Contact: Stephanie Steele-Galchutt, PO Box 3381, Wichita Falls, TX 76301, 817-235-1660, TxStateAssembly@gmail.com. 13 CE credits, pending approval by AST.

WISCONSIN
Summit: March 12, 2016. Wisconsin State Assembly. Title: Spring Madness. Location: Aurora Medical Center, 36500 Aurora Dr, Summit, WI 53066. Contact: Peggy Morrissey, N1417 County Road P, Rubicon, WI 53078, 262-443-0306, pegmorrissey@gmail.com. 6 CE credits, pending approval by AST.

SOUTH DAKOTA
State Assembly Annual Business Meetings

Members interested in the election of officers & the business issues of their state assembly should ensure their attendance at the following meetings.

**GEORGIA**
Atlanta: March 12, 2016
Annual meeting & elections

**ILLINOIS**
Peoria: March 5, 2016
Annual meeting & elections

**MARYLAND**
Baltimore: March 19, 2016
Annual meeting & elections

**OKLAHOMA**
Oklahoma City: November 14
Annual meeting & elections

**UTAH**
Murray: March 19, 2016
Annual meeting & elections

**HAWAII**
Honolulu: November 14
Annual meeting & elections

**INDIANA**
Indianapolis: November 7–8
Annual meeting & elections

**MASSACHUSETTS**
Lowell: November 7
Annual meeting & elections

**RHODE ISLAND**
East Greenwich: November 7
Annual meeting & elections

**IDAHO**
Boise: November 7
Annual meeting & elections

**LOUISIANA**
Baton Rouge: April 2, 2016
Annual meeting & elections

**NEBRASKA**
Omaha: March 5, 2016
Annual meeting & elections

**TEXAS**
Fort Worth: March 5–6, 2016
Annual meeting & elections

For assistance, call 800–637–7433, ext 2516 or email stateassembly@ast.org

▲ ‘Approved’ indicates a continuing education program that has been approved by AST for CE credit.

▲ ‘Accredited’ indicates a formal, college-based surgical technology or surgical assisting program that has been accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

**Future Program Approvals:** A Date Request Form must be submitted to AST 120 days prior to the workshop date. For complete information on all required forms, refer to the AST Policies for the Approval of State Assembly Continuing Education Programs and the Application for Approval of Continuing Education Programs State Assembly (application is due at least 10 business days before the workshop date) at www.ast.org, under State Assemblies tab, submenu Meeting Forms.

The completed Date Request Form must be submitted before the first of the current month to be published in the next month’s issue of *The Surgical Technologist*. A confirmation email as receipt received will be sent upon approval.

**State Assembly Leadership Achievement Award**

Active state assemblies are the future of the Association of Surgical Technologists’ strength and success. The Association of Surgical Technologists gives special recognition to those state assemblies that demonstrate outstanding leadership within their states.

- To recognize excellence in leadership and member development, communication, education and community relations
- To encourage quality state management
- To recognize with distinction and visibility that efforts and results of meaningful activities build a strong state
- To benchmark standards

**Entry deadline: January 31, 2016, for the January 1–December 31, 2015, reporting year.**

SHARE THE VALUE OF AST

Recruit your friends and colleagues and earn free membership.

EARN TWO MONTHS FREE MEMBERSHIP FOR EVERY NEW MEMBER YOU SIGN UP TO JOIN AST!

For each new member you recruit at the $80-membership level, you will receive a two-month extension on your membership!

HERE’S HOW:

> Recruit a valid new member at the one-year membership rate of $80.

> Make sure that each person you recruit provides AST with your name and AST member number when filling out their application.

> When AST receives the recruited member’s application, we will extend your membership by two months for each person you recruit.

> Recruit two members at the $80-level and we’ll extend your membership by four months! And so on, and so on, and so on!

Bonus membership months are not applicable to members who recruit themselves, students or retired/disabled members. No substitutions permitted. Your membership must be current to receive bonus months. Potential members MUST supply your name and membership number in order for you to receive bonus membership months. If a person’s membership has lapsed for more than a year, they are considered a new member.

For more information on this amazing offer, call our Member Services team at 1.800.637.7433 or visit our website at www.ast.org.
FREE CE OPPORTUNITIES FOR 2015!

Log onto www.ast.org and click on the “Earn CE” menu to access the library of CEs. Click on the numbers and take the tests for free: #300 – Gangrene: Recognizing and treating cellular necrosis – 2 CEs; #307 – Maintaining Confidentiality: HIPAA Compliance – 1 CE. Credits are awarded after passing the tests.

Whenever, Wherever. AST is making continuing education more accessible—more convenient—and even FREE. Now you can look, listen and learn from our quality education presentations that have been archived from national conferences and advanced specialty forums. Specialty topics range from orthopedics, OB/GYN, general and neurosurgery. You will actually see the medical professionals and slides as they were presenting their information. Each presentation is coded by specialty.

Topics include Intrauterine Repair for Spina Bifida, Pelvic and Acetabular Surgery, Infertility, Drug Abuse During Pregnancy, ACL Surgery, Issues in Patient Care, Advances in Spine Surgery, Epithelial Ovarian Cancer, and Preventing Preterm Delivery. Any or all are free to watch and study.

Whenever you’re ready, take the examination—there is absolutely no charge. If you pass, you will be offered the opportunity to purchase the accompanying CE credit and register it with AST at a very affordable price.

LOG ON TO THE AST CONTINUING EDUCATION RESOURCE CENTER TODAY AT: www.ast.org.
Spring 2016
ASA Meeting and Workshop
March 4-5, 2016
Embassy Suites Hotel
3600 Paradise Road, Las Vegas, NV 89169
$115/King Suite/per night plus taxes

Say ‘howdy’ to your next job opportunity.
Now hiring certified surgical techs in Colorado.

With a tradition of care that spans more than 100 years, the pioneering spirit is still alive and well at Centura Health. As a fully-integrated health system with 15 hospitals throughout Colorado, we’ll help you discover your ideal job and put down roots in great places to live like the Denver Metro Area, Colorado Springs, Pueblo and Durango. Featured positions for certified surgical techs include:

- Porter Adventist Hospital, Spine Team, full-time, Denver (48784)
- St. Anthony Hospital, full-time, Lakewood (50794, 47906)
- OrthoColorado Hospital, full-time (48333)
- Penrose-St. Francis, Lead Tech, full-time, Colorado Springs (51588)
- Castle Rock Adventist Hospital, full-time, Castle Rock (51946)
- St. Mary-Corwin Medical Center, part-time, Pueblo (43098 & 49008)
- Avista Adventist Hospital, full-time, Louisville (52092)
- PRN Surgical Techs – all hospitals (keyword search Surgical Tech PRN for list)

Many of these full-time positions come with a generous sign-on incentive (up to $5k depending on location) and relocation assistance – ask at time of application!

In addition to being part of an award-winning health care network, you’ll enjoy great pay and benefits while working with a supportive team dedicated to our faith-based, non-profit mission of care. Learn more by visiting our careers website (keyword search Surgical Tech or by job#)

careers.centura.org

Centura Health is an equal opportunity, non-tobacco, non-nicotine employer, M/F/D/V.
AST has even more continuing education opportunities available in print and online. We will be adding more continuing education credits on a continual basis, and the lists that are published in the Journal will be rotating on a quarterly basis so that we can provide more CE credits in a range of specialties.

Choose any nine articles and we will be happy to send them out free of charge. Return the answer sheets provided with the appropriate processing fee—only $6 per credit (not per test) for members, $10 per credit (not per test) for nonmembers. AST automatically records the returned CE credits for AST members.

Other articles, as well as archived conference and forum presentations, are easily accessible on the AST Web site, http://ceonline.ast.org. And there are three free CE opportunities for AST members to earn continuing education credits online—be sure to check them out.

To order please visit: http://ceonline.ast.org/articles/index.htm or contact Member Services at memserv@ast.org or fax requests to 303-694-9169 or call Member Services at 800-637-7433 and press #3.

Returned CE tests cost:
Members $6 per CE
Nonmembers $10 per CE, plus $400 Nonmember Fee

<table>
<thead>
<tr>
<th>#</th>
<th>Article Title</th>
<th>CE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Arthroscopic meniscectomy using the transpatellar tendon approach</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>The surgical technologist during arthroscopic menisectomies</td>
<td>2</td>
</tr>
<tr>
<td>15</td>
<td>The evolution of total hip replacement</td>
<td>2</td>
</tr>
<tr>
<td>27</td>
<td>Surgical management of the arthritic patient: An overview</td>
<td>2</td>
</tr>
<tr>
<td>38</td>
<td>Latissimus dorsi free flap grafts in lower extremity reconstruction</td>
<td>1</td>
</tr>
<tr>
<td>48</td>
<td>Bunion of the great toe: The Silver bunionectomy</td>
<td>1</td>
</tr>
<tr>
<td>53</td>
<td>Surgical considerations in upper extremity amputation injuries</td>
<td>1</td>
</tr>
<tr>
<td>56</td>
<td>The surgical treatment of osteomyelitis w/ antibiotic-impregnated PMMA beads</td>
<td>1</td>
</tr>
<tr>
<td>57</td>
<td>The Russell-Taylor interlocking nail system</td>
<td>1</td>
</tr>
<tr>
<td>66</td>
<td>Arthroscopic Bankart Repair of the Shoulder</td>
<td>1</td>
</tr>
<tr>
<td>70</td>
<td>Hemilaminectomy with Lumbar Diskectomy</td>
<td>1</td>
</tr>
<tr>
<td>72</td>
<td>Anterior Cruciate Ligament: History, Anatomy, and Reconstruction</td>
<td>1</td>
</tr>
<tr>
<td>74</td>
<td>Total Elbow Arthroplasty Procedure</td>
<td>1</td>
</tr>
<tr>
<td>76</td>
<td>Spinal Stabilization: An Anterior Approach</td>
<td>1</td>
</tr>
<tr>
<td>79</td>
<td>Free Fibula Graft to the Hip for Avascular Necrosis</td>
<td>1</td>
</tr>
<tr>
<td>83</td>
<td>Meniscal Repair in the Knee</td>
<td>1</td>
</tr>
<tr>
<td>96</td>
<td>Bone Grafting in Fracture Management</td>
<td>1</td>
</tr>
<tr>
<td>99</td>
<td>Bilateral Patellar Tendon Rupture</td>
<td>1</td>
</tr>
<tr>
<td>101</td>
<td>Endoscopic Automated Percutaneous Lumbar Diskectomy</td>
<td>1</td>
</tr>
<tr>
<td>108</td>
<td>Arthritis and Total Knee Replacement</td>
<td>1</td>
</tr>
<tr>
<td>112</td>
<td>Internal Fixation of Posterior Spine with Interbody Fusion</td>
<td>1</td>
</tr>
<tr>
<td>115</td>
<td>Small Joint scopes and Distal Radial Fractures</td>
<td>1</td>
</tr>
<tr>
<td>118</td>
<td>Arthroscopic Anterior Cruciate Ligament Reconstruction</td>
<td>1</td>
</tr>
<tr>
<td>120</td>
<td>Interposition Distraction Arthroplasty of the Elbow</td>
<td>1</td>
</tr>
<tr>
<td>124</td>
<td>Surgical Removal of Spinal Cord Tumors</td>
<td>1</td>
</tr>
<tr>
<td>155</td>
<td>Total Hip Arthroplasty</td>
<td>1</td>
</tr>
<tr>
<td>158</td>
<td>The Diagnosis and Treatment of Carpal Tunnel Syndrome</td>
<td>1</td>
</tr>
<tr>
<td>166</td>
<td>Rotator Cuff Surgery</td>
<td>1</td>
</tr>
<tr>
<td>173</td>
<td>From Bonesetter to Orthopaedic Surgeon: A History of the Specialty of Orthopaedics</td>
<td>1</td>
</tr>
<tr>
<td>174</td>
<td>Open Tibial Shaft Fractures: Current Management</td>
<td>1</td>
</tr>
<tr>
<td>175</td>
<td>Child Abuse! Or Something Else? Osteogenesis Imperfecta</td>
<td>1</td>
</tr>
<tr>
<td>176</td>
<td>Factors Surrounding Total Shoulder Arthroplasty</td>
<td>1</td>
</tr>
<tr>
<td>181</td>
<td>Osteoporosis unveiled: Answers to Your Questions</td>
<td>1</td>
</tr>
<tr>
<td>185</td>
<td>IntraDiscal electrothermal therapy: A novel approach to lumbar disc degeneration &amp; herniation</td>
<td>1</td>
</tr>
<tr>
<td>190</td>
<td>Posterior Spinal Surgery</td>
<td>1</td>
</tr>
<tr>
<td>191</td>
<td>The Ilizarov Technique</td>
<td>1</td>
</tr>
<tr>
<td>192</td>
<td>Fat Embolism: A Complication of Long Bone Fracture</td>
<td>1</td>
</tr>
<tr>
<td>201</td>
<td>Posterior Spinal Surgery: 20th Century Advances</td>
<td>1</td>
</tr>
<tr>
<td>215</td>
<td>Bone Healing</td>
<td>1</td>
</tr>
<tr>
<td>216</td>
<td>Anterior Cervical Fusion</td>
<td>1</td>
</tr>
<tr>
<td>229</td>
<td>Anterior Cervical Corpectomy, Fusion and Stabilization</td>
<td>2</td>
</tr>
<tr>
<td>#</td>
<td>Article Title</td>
<td>CE</td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------------------------------------------</td>
<td>----</td>
</tr>
<tr>
<td>268</td>
<td>Total Knee Arthroplasty</td>
<td>2</td>
</tr>
<tr>
<td>275</td>
<td>Avascular Necrosis of Femoral Head: Diagnosis to Treatment</td>
<td>1</td>
</tr>
<tr>
<td>297</td>
<td>Wrist Fusion: Fighting back against Rheumatoid Arthritis</td>
<td>2</td>
</tr>
<tr>
<td>304</td>
<td>Ulnar Collateral Ligament Reconstruction</td>
<td>2</td>
</tr>
<tr>
<td>312</td>
<td>Management and Prevention of Infection in Orthopedic Surgical Procedures</td>
<td>2</td>
</tr>
<tr>
<td>314</td>
<td>Total Knee Arthroplasty</td>
<td>1</td>
</tr>
<tr>
<td>316</td>
<td>Acquired Adult Flatfoot Deformity</td>
<td>1</td>
</tr>
<tr>
<td>317</td>
<td>Hip Arthroscopy: Treating Femoracetabular Impingement</td>
<td>1</td>
</tr>
<tr>
<td>321</td>
<td>Birmingham Hip Resurfacing</td>
<td>1</td>
</tr>
</tbody>
</table>

**Neurosurgical**

<table>
<thead>
<tr>
<th>#</th>
<th>Article Title</th>
<th>CE</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Ligamentum flavotomy - alternative to laminectomy in herniated disc</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>L5 Laminectomy</td>
<td>1</td>
</tr>
<tr>
<td>31</td>
<td>Superficial temporal artery to middle cerebral artery anastomosis for occlusive cerebrovascular disease</td>
<td>2</td>
</tr>
<tr>
<td>45</td>
<td>Cranioplasty: The evolution of materials</td>
<td>1</td>
</tr>
<tr>
<td>77</td>
<td>The Frontal Lobes: Key to Moral Thinking</td>
<td>1</td>
</tr>
<tr>
<td>102</td>
<td>Stereotactic-Guided Craniotomy for Resection of a Cerebral AVM</td>
<td>1</td>
</tr>
<tr>
<td>113</td>
<td>Stereotactic-CT Biopsy</td>
<td>1</td>
</tr>
<tr>
<td>119</td>
<td>Microvascular Decompression for Control of Essential Hypertension</td>
<td>1</td>
</tr>
<tr>
<td>128</td>
<td>The Frontal Lobes: Movement and Morality Part 1: Basic Anatomy and Function</td>
<td>1</td>
</tr>
<tr>
<td>129</td>
<td>The Frontal Lobes: Movement and Morality Part II: Neuroanatomy and Neuropsychology Converge</td>
<td>1</td>
</tr>
<tr>
<td>130</td>
<td>Transphenoidal Approach to Pituitary Tumors</td>
<td>1</td>
</tr>
<tr>
<td>143</td>
<td>The Eyes Have It: A Guide to a Critical Portion of the Neurological Trauma Examination</td>
<td>1</td>
</tr>
<tr>
<td>148</td>
<td>Contemporary Management of Extensive Tumors of the Cranial Base</td>
<td>1</td>
</tr>
<tr>
<td>154</td>
<td>Gamma Knife Stereotactic Radiosurgery: A Noninvasive Option to Intracranial Surgery</td>
<td>1</td>
</tr>
<tr>
<td>163</td>
<td>The Vagus Nerve</td>
<td>1</td>
</tr>
<tr>
<td>167</td>
<td>Bradykinin Selectively Opens Blood-Tumor Barrier in Experimental Brain Tumors</td>
<td>1</td>
</tr>
<tr>
<td>182</td>
<td>Operative Solutions to Axial Lumbar Pain</td>
<td>1</td>
</tr>
<tr>
<td>198</td>
<td>Cerebral artery aneurysm clipping: Anatomy, approach &amp; technique explored</td>
<td>1</td>
</tr>
<tr>
<td>199</td>
<td>High grade astrocytoma in the adult: Biology, pathology, diagnostics, &amp; treatment</td>
<td>1</td>
</tr>
<tr>
<td>200</td>
<td>High grade astrocytoma in the adult: Biology, pathology, diagnostics, &amp; treatment, Pt. 2</td>
<td>1</td>
</tr>
<tr>
<td>203</td>
<td>Human stem cell research medical panacea or moral nightmare</td>
<td>1</td>
</tr>
<tr>
<td>207</td>
<td>The Autonomic Nervous System</td>
<td>1</td>
</tr>
<tr>
<td>209</td>
<td>General principles &amp; instrumentation for cranial neurosurgery</td>
<td>1</td>
</tr>
<tr>
<td>209</td>
<td>General principles &amp; instrumentation for cranial neurosurgery, pt. 2</td>
<td>1</td>
</tr>
<tr>
<td>212</td>
<td>Creutzfeldt-Jakob Disease</td>
<td>1</td>
</tr>
<tr>
<td>220</td>
<td>Glioblastoma multiforme: From biology to treatment</td>
<td>1</td>
</tr>
<tr>
<td>245</td>
<td>Intracranial Stereotactic Navigation: Cost analysis &amp; patient outcomes reviewed</td>
<td>2</td>
</tr>
<tr>
<td>255</td>
<td>Microvascular decompression for control of trigeminal neuralgia</td>
<td>1</td>
</tr>
<tr>
<td>262</td>
<td>Cauda Equina Lipoma Resection with Spinal Cord Untethering in an Adult</td>
<td>1</td>
</tr>
<tr>
<td>269</td>
<td>Type II Odontoid Process Fractures</td>
<td>1</td>
</tr>
</tbody>
</table>
It’s better to do a few things really well.
And when it comes to surg tech education,
AST leads the way. There’s a good reason behind
our leadership in educational resources—we can
tap into some of the best and most innovative
practitioners who want to share their expertise and
talents with their colleagues and future practitioners.
Our members are surgical technologist writers and
editors whose mission is to enhance patient care and
to advance the profession through education.

Take a look at the quality resources we have created—and wait for the others that are
in the pipeline. AST members receive discounted pricing as a benefit of membership.
Call 800-637-7433 to order or order through our online store at www.ast.org.
(Note: Not all products listed are pictured).
It's better to do a few things really well. And when it comes to surg tech education, AST leads the way. There's a good reason behind our leadership in educational resources—we can tap into some of the best and most innovative practitioners who want to share their expertise and talents with their colleagues and future practitioners. Our members are surgical technologist writers and editors whose mission is to enhance patient care and to advance the profession through education.

Take a look at the quality resources we have created—and wait for the others that are in the pipeline. AST members receive discounted pricing as a benefit of membership. Call 800-637-7433 to order or order through our online store at www.ast.org. (Note: Not all products listed are pictured).

### Books

<table>
<thead>
<tr>
<th></th>
<th>Member</th>
<th>Non-member</th>
<th>QTY</th>
<th>AMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Surgical Technologist Certifying Exam Study Guide, 3rd ed</td>
<td>$55</td>
<td>$65</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Surgical Technology for the Surgical Technologist, 4th ed</td>
<td>$149</td>
<td>$169</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Surgical Technology for the Surgical Technologist, Study Guide/Lab Manual</td>
<td>$64</td>
<td>$71</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>First Assistant Certifying Exam Study Guide</td>
<td>$45</td>
<td>$55</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Patient Skin Prep Charts for the Surgical Technologist</td>
<td>$17.99</td>
<td>$17.99</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Core Curriculum for Surgical Technology</td>
<td>$175</td>
<td>$175</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Core Curriculum for Surgical Assisting</td>
<td>$100</td>
<td>$100</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Surgical Technologist Journal—Subscription included</td>
<td>$40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### DVDs, CDs

<table>
<thead>
<tr>
<th></th>
<th>Member</th>
<th>Non-member</th>
<th>QTY</th>
<th>AMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Basic Surgical Instrumentation</td>
<td>$175</td>
<td>$175</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Intraoperative Case Management</td>
<td>$175</td>
<td>$175</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Introduction to Asepsis and Sterile Technique</td>
<td>$175</td>
<td>$175</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Postoperative Case Management</td>
<td>$175</td>
<td>$175</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Preoperative Case Management</td>
<td>$175</td>
<td>$175</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Surgical Case Management Series (6 DVDs)</td>
<td>$875</td>
<td>$875</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Surgical Positioning, Prepping and Draping</td>
<td>$175</td>
<td>$175</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Wound Closure Techniques (DVD/CD 2-disc set)</td>
<td>$45</td>
<td>$50</td>
<td></td>
</tr>
</tbody>
</table>

**Subtotal:**

**Shipping and handling:**

(call 800-637-7433 for shipping charges)

**Total:**
Search Announcement

Executive Director

The Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC STSA), a private not-for-profit accrediting body, seeks a highly qualified individual with exceptional leadership abilities, as well as a strong background in accreditation, education, finance, and non-profit management.

The ARC STSA Executive Director oversees and manages operations, projects and development of the organization, successfully executing its vision and mission. A bachelor's degree is required and an advanced degree is preferred. A minimum of five years management experience is required. Related, progressive management experience is preferred.

The ideal candidate should have a proven record demonstrating superior performance, innovation, motivation and integrity in specialized programmatic accreditation, organizational leadership, fiscal responsibility and inter-organizational collaboration.

The ARC STSA's primary goals are the accreditation of more than 450 surgical technology and surgical assisting educational programs, promoting quality educational standards and successfully marketing its nationally recognized accreditation services offered in collaboration with the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

Duties include office management, human resource management, organization of Board meetings, policy and procedure development and financial oversight. This is a resident position in the ARC STSA office located in Littleton, Colorado (south suburban Denver). Regular extended travel is required to represent the organization nationally.

Competitive salary and benefits package offered. Applications should include cover letter addressing position qualifications, resume/CV, contact information for 3 references and minimum salary expectations. Position open until filled. Applications received after November 23, 2015 will be reviewed at the discretion of the Board of Directors. E-mail completed application materials searchcommittee@arcstsa.org.

Attn: Kathy Snyder, BS, CST, FAST
ARC STSA Vice President and Search Committee Chair

NEED A JOB? GET NOTICED TODAY!

The AST Career Center is a free service where you can post your resume for all to see. Looking for a new job or thinking about relocating? Check out what listings are appearing daily!

Posting your resume is a simple process. Just visit www.ast.org and click on Career Center. In just a few minutes, you create an account and post your resume, and then search for jobs. New jobs are posted daily!

Other features include tips and tricks for job hunting. Sign up today!

ADVERTISERS INDEX

ARC/STSA ... ........... 492, 526
ASA.......................... 521
Centura Health ............... 521
Innomed ........................ 527
MySurgeon ........................ 511
Ruhof ................. 482, 483, 484

Partial Nephrectomy
Modified Lambotte Osteotomes
Designed with a striking platform, plus a cross-bar hole to help control rotational stability and assist with removal.

- Six (6) sizes available, from 1/4" to 1-1/2" in 1/4" increments. Cross-bar and case included in complete set.
- The two smallest sizes have an 1/8" hole in which an 1/8" pin (not included) can be used as a cross bar.

PRODUCT NO: 5350-00 [Complete Set w/Case]
Also Available Individually

Screw/Pin Removal Locking Pliers
Unique jaw designed to solidly grip and clamp onto a screw for removal.

PRODUCT NO: 7241
Overall Length: 10.125"

Bone Depth Gauge
Designed to help provide measurement of the depth/length of any bone hole for proper screw length determination.

PRODUCT NO: 8015
Overall Length: 7.625"
Scale: From 0 to 48mm

Stainless Steel OrthoVise™ with Slap Hammer

PRODUCT NO’S:
- 3980 Large (10") with Large Slap Hammer
- 3980-01 Large (10") w/Slaphammer, w/Attachments
- 3981 Large (10") without Slap Hammer or Attachments
- 3985 Small (8") without Slap Hammer or Attachments
- 3985-01 Small (8") with Small Slap Hammer
- 3965 Large (12") with Large Slap Hammer
- 3965-01 Large (12") w/Slaphammer, w/Attachments
- 3966 Large Bent Jaw w/Slap Hammer
- 3966-01 Large Bent Jaw w/Slap Hammer, w/Attachment
- 3975 Small (9.5") without Slap Hammer or Attachments
- 3975-01 Small (9.5") with Small Slap Hammer

Rotating Offset Handle Hex Driver
Offset shaft and smooth spin handle allow for a rapid crank action when desired.

PRODUCT NO: 7241
Overall Length: 10.125"

Wagner Osteotome Handle
Designed by Russell Wagner, MD
Handle is designed for easier gripping, rotational control, and use with a mallet with a standard 1/4" Lambotte osteotome
Osteotome not included.

PRODUCT NO: 5348
Overall Length: 5.5"
Now it pays even more to be a member of AST—especially for students.

2015 CERTIFYING EXAM FEES

Member price: $190
Nonmember price: $290

Your savings begin right away when you apply for the special student membership rate, $45 (a $35 savings). Save $10 with the member discounted price of the examination study guide, $55 and save $100 when you take the national certifying examination.

Enjoy the benefits of membership in the premier national professional organization for surgical technologists. Join online at www.ast.org; by phone at 800-637-7433; or by mail (fill in the application below).

CST is a registered trademark of the National Board of Surgical Technology and Surgical Assisting.

Benefits include:
✓ student rate discounts
✓ scholarship opportunities
✓ access to the most up-to-date information about the profession
✓ insurance discounts
✓ education and employment opportunities
✓ access to a website that connects you to nearly 37,000 other surgical technology professionals

Application Form 6 West Dry Creek Circle, Suite 200, Littleton, CO 80120-8031

☐ Yes, I would like to save $10 and order the Certifying Exam Study Guide at $55 (plus $7.50 shipping).
Savings for current and joining AST members only.

☐ NONMEMBERS: Certifying Exam Study Guide $65 (plus $7.50 shipping)

Name __________________________________________ Address ______________________________________
City __________________________ State ______ ZIP ______ E-mail ________________________________
Phone ___________________________ School ___________________________ Graduation Date __________
I am paying by ☐ Check enclosed ☐ VISA ☐ MasterCard # ___________________________ Expiration Date __________
Total enclosed __________________ Signature ___________________________________________
1. RCC is a type of cancer that develops in the lining of the _______.
   a. Renal artery
   b. Renal vein
   c. Kidney’s tubules
   d. Liver

2. Each kidney has a blood supply that is usually supplied through _______.
   a. One renal artery
   b. Multiple renal arteries
   c. The inferior vena cava
   d. Multiple renal veins

3. Two or three major calyces are formed from the union of about _______ minor calyces, which then joins the renal pelvis.
   a. 6 to 8
   b. 8 to 10
   c. 10 to 12
   d. 8 to 12

4. Which ribs are lined with a marking pen?
   a. 4 and 5
   b. 2 and 11
   c. 11 and 12
   d. 6 and 7

5. After removing a segment of the 11th rib to improve visibility, the peritoneal cavity is freed and directed _______ away from the kidney.
   a. Posteriorly
   b. Circumferentially
   c. Laterally
   d. Anteriorly

6. A _______ is positioned over the renal artery in order to test the occlusion of blood flow to the upper pole of the kidney.
   a. Metzenbaum scissors
   b. Cosgrove clamp
   c. Penfield dissector
   d. Bovie

7. Partial nephrectomy patients are typically advised to schedule a follow-up in _______ following the operation.
   a. 2 to 4 days
   b. 2 to 4 weeks
   c. 4 to 6 weeks
   d. 12 days

8. The upper ureter extends from the renal pelvis to the upper border of the _______.
   a. Sacrum
   b. Bladder
   c. Middle ureter
   d. Renal artery

9. Which renal vein is a bit shorter?
   a. Right
   b. Left
   c. Inferior vena cava
   d. None of the above

10. Following induction, the patient was positioned in what position?
    a. Supine
    b. Right lateral
    c. Right lateral decubitus
    d. Left transverse