

# The Rotating Anode

SPRING 2022



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# KSRT COMMITTEE CHAIRS AND APPOINTMENTS

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Interested in contributing to  
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Contact: Jen Smith

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(Please put *Anode* in the subject  
line)

Official Publication of the  
Kansas Society of Radiologic  
Technologists

Denise Orth, Executive Secretary  
1702 Mermis Ct.  
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# BOARD OF DIRECTORS MEETING MINUTES

9 a.m. Jan. 22

Via Zoom

**Voting members present:** Ronda Sunnenberg, chair of the board; Harmony Ibarra, immediate past president; Katilyn Slaton, president; Gale Brown, president-elect; Alexa Ritter, vice president; Tara Rohn, professional development chair; Jason Elliott, secretary-treasurer; Becky Dodge, education co-chair; Kirsten Oswald, student representative; Kelly Denton, western area representative; Lisa Eddy, director at large; Toni Caldwell, ASRT senior delegate and legislative chair.

**Non-voting members present:** Denise Orth, executive secretary; Jen Smith, editor of *The Rotating Anode*.

**Call to order:** Katilyn called the meeting to order at 9:12 a.m.

**Quorum:** Jason established a quorum.

**Consent agenda:** Toni moved to accept the consent agenda, Ronda seconded, motion passed.

**Approval of minutes:** Toni moved to accept the minutes from the September board of directors meeting, Harmony seconded, motion passed.

**Reports:** The reports from the president, professional development vice chair, and legislative chair were emailed to members.

**Financial report:** The financial report through Jan. 16 was emailed to members. Harmony moved to accept the financial report as presented, Ronda seconded, motion passed.

## Old business:

As decided in the September meeting, a Memberplanet plan was purchased and instructions were emailed to members.

Several new board members have completed the ASRT Leadership Academy modules.

Funds from the ASRT Financial Assistance Program were received.

Toni was selected as the ASRT Senior Delegate for the ASRT House of Delegates.

Bylaw changes were submitted to the ASRT on Sep. 30.

## EXECUTIVE COMMITTEE MINUTES

8:30 a.m. Jan 22

Via Zoom

**Call to order:** The meeting was called to order at 8:41 a.m.

**Voting members present:** Ronda Sunnenberg, chair of the board; Harmony Ibarra, immediate past president; and Katilyn Slaton, president.

**Approval of minutes:** Harmony moved to approve the minutes. Katilyn seconded the motion. Minutes approved.

**Financial report:** Denise presented the financial report through Jan. 16. The report showed income of \$11,316.73 and expenses of \$7,398.28. The net worth report showed a checking account balance of \$13,868.49 and certificates of deposit worth \$45,019.28 for a total net worth of \$58,887.77. Harmony moved to accept the financial report as presented and Katilyn seconded the motion. Motion passed.

## Old business

**Legislative update:** The re-

The Google Drive used by the board was restructured to be more user friendly.

## New business

**Proposed budget:** The board developed the 2022-23 proposed budget. Toni made a motion to vote on the proposed budget as set, Becky seconded, motion passed. Toni made a motion to set the 2022-23 budget as proposed, Alexa seconded, motion passed.

**Update on practice standards:** Toni provided an update and requests feedback from the board. Toni will send the recommendations to the board in sections, to provide and finalize revisions.

**1861 Consulting:** The contract is up for renewal. Ronda made a mo-

newal contract with 1861 Consulting is due. The practice standards need to be reviewed and Toni needs to have input from the board on them. She feels there is time to review and make the changes which are best. She suggests we wait until facilities stop having emergency measures.

## New business

### 2022-23 proposed budget:

This will be voted on during the meeting of the full board.

**Website:** Toni mentioned having a student redesign the society's website. Katilyn has reached out to Susan Dumler regarding her role as media coordinator.

**Announcements:** The pre-convention board meeting will be at 2:30 p.m. March 31.

**Adjournment:** Katilyn moved to adjourn and Harmony seconded the motion. The meeting was adjourned at 9:06 a.m.

tion to renew the contract with 1861 Consulting, Gale seconded, motion passed.

Jen Smith discussed a potential research project using KSRT membership. It was discussed that the final research project, publications, and membership distributions would need to be approved by the board once developed.

**Membership flyer:** Katilyn updated the flyer and distributed it to the board.

**Student representative:** Katilyn will email program directors for a letter of intent for anyone interested in the student representative position, to be returned by March 1.

**CE collaboration:** Kansas was

Continued on Page 9

# Competition Winners

## Radiographs

### Lateral knee

First place – Madelyn Koester, Washburn; second place – Chris Chandler, Fort Hays; third place – Madeline Rivera, Washburn

### Scapular Y view shoulder

First place – Caitlin Countryman, Washburn; second place – Isabella Bennet, Labette; third place – Macy Doebele, Washburn

### Swimmers view thoracic spine

First place – Cliff Oshel, Labette; second place – Carrie Kennedy, Fort Hays; third place – Jacquelyn Dexter, Labette

## Contrast

### RAO esophagus

First place – Erin Jones, Labette

## Most interesting case

First place – Madeline Rivera, Washburn

## Essay

First place – “Radiographer’s Role in Imaging Common Lines and Tubes for Medical Purposes” by Madelyn Koester, Washburn; second place – “The Past, Present, and Future of Interventional Radiology” by Cade Scheck, Washburn; third place – “The Role of Imaging Techniques in the Diagnosis of COVID-19” by Alize Bryan, Fort Hays

## Exhibit

First place – “Spina Bifida” by Abigail Long, Labette; second place – “Nursemaid’s Elbow” by Brenna Riffel, Washburn; third place – “The History of Radiation” by Rachel Ewertz and Brylee Wiedmer, Fort Hays

## 2022 ANNUAL CONVENTION BUSINESS MEETING MINUTES

April 1

Lawrence

### FIRST BUSINESS SESSION

**Call to order:** The 85th annual meeting of the Kansas Society of Radiologic Technologists was called to order at 10:07 a.m.

The current board members and committee chairs were introduced. Then all past presidents were asked to stand and be recognized, followed by a moment of silence for members who died during the previous year.

The sergeants at arms were Brian Ralph (chief), Kirsten Oswald, and Shanna Bennett. There were 82 pre-registered voting members for the day, and 78 voting members were in the room. The quorum was 21, so the quorum was met. There was no objections from the audience, therefore the report from the chief sergeant at arms was adopted.

**Governance report:** The 2021 annual convention minutes and board reports have been available on ksrad.org in *The Rotating Anode*. The financial report and proposed budget has been published in *The Rotating Anode*. Voting on the governance report will occur after the financial report is given.

**Financial report and proposed budget:** Denise presented the financial report as printed in the packet. Gale presented the proposed budget. Gale asked for questions regarding the minutes, financial report, and proposed budget. There were no objections to approving the governance report from the membership; the report was adopted.

**Reports:** Reports from each officer and committee were printed in packet. The membership did not have additions or corrections to the report and no questions were asked.

**Nominations:** Nominations for

president-elect, vice president, secretary-treasurer, and director at large were open. Nominees were displayed on the screen.

President-elect: Denise Orth  
Vice president: Lisa Eddy  
Secretary-treasurer: Jason Elliott  
Director at large: Kirsten Oswald

Gale called for additional nominations, and none were presented. Nominations were closed. Denise stated that all nominees meet the qualification for the offices. All nominees stated they have read the qualifications and duties of the office. Each nominee present spoke briefly to the membership. As there was only one nominee per office, Gale called for a vote of acclamation. Gale asked all in favor of the nominees to stand and remain standing to be counted. Consent for the nominated officers was unanimous.

**New business:** Toni explained the changes to the practice standards and upcoming changes in CEU reporting to the Kansas Board of Healing Arts.

**Image competition:** Categories were displayed for voting. Ballots were in attendees' packets and would be collected at the beginning of lunch.

Announcements were made about the silent auction, raffle tickets, and the annual service project.

Recess was declared at 10:30 a.m.

## SECOND BUSINESS SESSION

**Call to order:** The second business session was called to order at 5:30 p.m.

### Professional Development

**Awards:** Tara announced the competition winners and presented the prizes.

**Essay:** First place, "Radiographer's Role in Imaging Common Lines and Tubes for Medical Purposes" by Madelyn Koester, Washburn; second place, "The Past, Present, and Future of Interventional Radiology" by Cade Scheck, Washburn;

## RAY BOWL COMPETITION

During its post-convention meeting, the KSRT Board of Directors discussed the 2022 Ray Bowl competition and how the incorrect answer key may have affected team responses and final team ranking. As a solution the board recognizes both Fort Hays and Washburn as first place in the 2022 Ray Bowl competition. Chair of the Board Harmony Ibarra made a motion that Washburn will receive equal first place recognition and awards, including a plaque, website and publication recognition, and monetary awards. Kelly Denton, western area representative, seconded, motion passed.

third place, "The Role of Imaging Techniques in the Diagnosis of COVID-19" by Alize Bryan, Fort Hays.

**Scientific exhibit:** First place, "Spina Bifida" by Abigail Long, Labette; second place, "Nursemaid's Elbow" by Brenna Riffel, Washburn; third place, "The History of Radiation" by Rachel Ewertz and Brylee Wiedmer, Fort Hays.

### Radiographs:

Lateral knee: First place, Madelyn Koester, Washburn; second place, Chris Chandler, Fort Hays; third place, Madeline Rivera, Washburn.

Scapular Y view shoulder: First place, Caitlin Countryman, Washburn; second place, Isabella Bennet, Labette; third place, Macy Doebele, Washburn.

Swimmers view thoracic spine: First place, Cliff Oshel, Labette; second place, Carrie Kennedy, Fort Hays; third place, Jacquelyn Dexter, Labette.

Contrast  
RAO esophagus: First place, Erin Jones, Labette.

**Most interesting case:** First place, Madeline Rivera, Washburn

**Ray Bowl:** First place, Fort Hays State University; second place, Labette; third place, Washburn University.

**Top written Ray Bowl score:** Jaqueline Dexter, Labette.

**Scholarship winners:** Melinda Chiroy presented scholarships to Taiyler Atwill and Lauryn Moore.

**Membership awards:** Alexa Ritter presented the awards.

Five years: Jason Elliott, Alexa Ritter, Teresa Stuart, and Julie Sulzman.

Ten years: Anna Hommertzhaim.

Fifteen years: Toni Caldwell, Amanda Meyers.

Twenty years: Judy Lynch.

Forty years: Christopher Atchison.

Gale Brown presented Ronda Sunnenberg her plaque for serving as chair of the board. Ronda Sunnenberg presented Katilyn Slaton her plaque for serving as the 2021-22 president. Jen Smith accepted the plaque on Katilyn's behalf as Katilyn was unable to attend the annual meeting.

**Installation of officers:** Ronda Sunnenberg installed the new officers. Each officer was presented with a KSRT pin.

President: Gale Brown

Vice president: Lisa Eddy

Secretary-treasurer: Jason Elliott

Director at large: Kirsten Oswald

### Announcements:

The 86th annual meeting will be March 30-April 1 at the Hilton Garden Inn in Hays.

Zoey Harrison from Washburn University will be appointed as the student representative for 2022-23.

Image competition categories for 2023 are right lateral stomach (contrast media), lateral elbow, AP cervical spine odontoid, and sunrise patella.

The new executive committee and board of directors will meeting immediately after adjournment of the business meeting.

**Adjournment:** The second business session was adjourned at 6:40 p.m.

# RADIOGRAPHER'S ROLE IN IMAGING COMMON LINES AND TUBES FOR MEDICAL PURPOSES

By Madelyn Koester, Washburn University  
First-place essay

## Abstract

Medical line and tube placements are common within the medical field to serve specific functions related to patient health care and improvement. There are many lines and tubes that use x-ray to confirm placement within the patient's body. Radiographers will improve medical efficiency and overall patient care by obtaining knowledge about the function of common lines and tubes, the areas where they are to be placed, and how to identify them on an image. In this essay, common lines and tubes are placed within three categories for classification simplicity. These categories include chest lines and tubes, transabdominal (percutaneous) tubes, and alimentary lines and tubes. Each line/tube is unique in its own way, serving a specific function and having a specific placement within the body. Likewise, although radiographers need to have knowledge about these specific lines and tubes, it is also crucial to understand other important aspects. These aspects include the importance of moving external wires and tubing outside of the field of view before imaging, utilizing lead markers, and understanding mobile equipment and how it functions to help aid in evaluation.

Over time, as society has progressed and knowledge has increased, medical treatments and patient care also have blossomed. The medical treatments in practice now have required time, dedication, and trials to improve their effectiveness. Even now, there are advances in the health care system daily. Likewise, the medical imaging field also has improved and added to the medical treatment process. Medical imaging is a crucial component of the health care field. Medical imaging encompasses numerous modalities that obtain many different images for diagnostic purposes. One important aspect of the

medical imaging modality, x-ray, is its aid in the verification of medical line and tube placements. Medical lines and tubes have various purposes, some of which include administration of fluids and medications, breathing support, drainage, suction, and feeding (Adler & Carlton, 2019). Although radiographers do not "read" the images for line and tube placements, they still play a crucial role in imaging and evaluating the image. For example, if the radiographer notices that a line or tube is not in the right position, they could alert the appropriate personnel so no damage occurs to the patient before the radiograph is approved or disapproved by the radiologist. Therefore, it is essential that a radiographer understands the different types of lines and tubes, knows the purpose of these medical tools, and can identify them properly. Knowing the function of common lines and tubes, the areas where they are to be placed, and how to identify them on an image will improve medical efficiency and overall patient care.

## Types of Lines and Tubes

There are numerous lines and tubes available for medical purposes. Even though each line and tube has its own purpose, they can be placed into broad categories for classification simplicity in this paper. These categories include chest lines and tubes, transabdominal (percutaneous) tubes, and alimentary lines and tubes. Even though all lines and tubes in the transabdominal and alimentary categories could be classified as "feeding tubes," separating them for purposes of this paper allows for a more simplified flow of information. Chest lines and tubes can be inserted directly into the chest cavity percutaneously or placed into the major structures of the thoracic cavity from more distant origins (Adler & Carlton, 2019). Transabdominal (percutaneous) tubes are inserted

through the skin into the abdominal cavity or abdominal organ and are placed surgically (Whitlock, 2020). Lastly, alimentary tubes are inserted via the nose or mouth and typically travel to the upper gastrointestinal organs (Adler & Carlton, 2019). Now that the main categories of lines and tubes have been mentioned, it is important to discuss the common lines and tubes found in each of these categories, their functions, and what to look for in terms of imaging.

## Chest Lines and Tubes

Chest lines and tubes are composed of central venous catheters (lines), central and non-central arterial catheters (lines), endotracheal (ET) tubes, and thoracostomy (chest) tubes.

Central venous lines are catheters placed in a central vein to administer drugs, manage fluid volume, allow for blood analysis and transfusions, and to measure cardiac pressures (Adler & Carlton, 2019). There are several different categories of central venous lines. These categories include peripherally inserted central catheters (PICC), percutaneous catheters (subclavian insertion catheters), totally implanted access ports (Infusa Port, Port-a-Cath, Mediport), and externally tunneled catheters (Broviac, Hickman, Groshong) (Adler & Carlton, 2019). Although there are different categories of central venous lines, typically all central lines end in the same location. The tip of the catheter should lie in the superior vena cava (SVC), about 2-3 centimeters above the right atrial junction. PICC lines, subclavian insertion catheters, and externally tunneled catheters are similar but have one important difference. PICC lines originate in the veins of the upper extremities, whereas subclavian insertion catheters and externally tunneled catheters originate elsewhere (Adler & Carlton, 2019).

Internal jugular catheters commonly need imaging after insertion to ensure proper placement, but they are not placed in the peripheral venous system. Although externally tunneled catheters are inserted into other veins eventually, they first “tunnel” under the skin until they reach their venous insertion destination (Adler & Carlton, 2019). Therefore, PICC lines comprise only the catheters inserted into the upper extremities, hence the word “periphery” in the name. Although PICC lines, subclavian insertion catheters, and externally tunneled catheters have different origins, the tip of these catheters all end in the SVC. The last central venous lines that end up in the SVC are the totally implanted access ports. Ports are surgically implanted for long-term use, especially for drug administration in chemotherapy (National Cancer Institute, n.d.). These permanent central venous catheters are placed underneath the skin and are only accessed and utilized when needed. One other common central venous line is different from the other central venous lines because it originates and is ultimately located in a different place. The umbilical venous catheter (UVC) is only seen in pediatric patients, and they are inserted in the child’s umbilical stump and advanced to the inferior vena cava (IVC) (Lewis & Spirnak, 2021). The tip of the UVC should lie above the diaphragm but below the right atrium or complications could arise. As a whole, central venous catheters commonly are seen in medical imaging and radiographers should obtain the knowledge needed to aid in the identification of proper placement and acquire quality images for visualization.

Arterial lines include both central and non-central arterial catheters. Central arterial catheters include the pulmonary artery (PA) or Swan-Ganz catheter, whereas non-central arterial catheters are placed in other artery locations. The PA Swan-Ganz catheters have a small electrode and balloon at the tip of the catheter for estimating left-ventricular end-diastolic pressures (Adler & Carlton, 2019). Placing a catheter into the left ventricle

is too risky, therefore, by measuring the right pulmonary artery pressure, this is indicative of left ventricular pressure. Unlike other central lines, PA lines are going to go through the SVC, right atrium, and right ventricle to reside in one of the pulmonary arteries for measurement of arterial pressures. The PA catheter first travels through the venous system but ultimately resides in one of the pulmonary arteries, hence why it is considered a central arterial line instead of a central venous line. Overall, this is an innovative and less-consequential way of measuring left ventricular pressures. Similar to the UVC, umbilical arterial catheters (UACs) are also common in pediatric patients. According to Dumpa and Avulakunta (2021), indications for an UAC include needing frequent measurement of arterial blood gasses, continuous blood pressure monitoring (especially in premature neonates), and frequent blood sampling. The UAC should travel from the umbilical stump up through the arterial system until it reaches the aorta, but it is important to ensure that the tip of the catheter is not in the branch of the aorta (Hacking, 2019). The tip of the catheter should be placed in either the high position (T6 to T10) or the low position (L3 to L5). The patient’s condition will determine where the doctor prefers the catheter be placed. Secondly, non-central arterial lines are placed into an artery in the wrist, groin, or other location to measure blood pressure (American Thoracic Society [ATS], n.d.). Measuring blood pressures by this method is more accurate than using the blood pressure cuff and is commonly used in the intensive care unit (ICU). Imaging for these lines rarely is performed but are important to understand while working in the medical imaging field.

Endotracheal (ET) tubes are used for respiratory aid, and this process often is called intubation (Adler & Carlton, 2019). ET tubes are utilized for a variety of respiratory complications, including a need for mechanical ventilation because of inadequate ventilation, inadequate arterial oxygenation, severe airway obstruction,

shock, and parenchymal diseases that impair gas exchange. Other reasons include impending gastric acid reflux or aspiration and provisions for tracheobronchial lavage. ET tubes use a translaryngeal approach via the nose or mouth and are advanced into the trachea, ending 1-2 inches superior to the tracheal bifurcation, also known as the carina (Adler & Carlton, 2019). For identification purposes, ET tubes appear thicker than most lines and tubes placed in the body. For example, both central venous lines and nasogastric tubes are smaller in diameter than ET tubes and appear to be so on the radiograph.

Thoracostomy tubes (chest tubes) are inserted through the chest wall into the intrapleural space or the mediastinum to remove excess or abnormal fluid, air, blood, or pus (Adler & Carlton, 2019). Although insertion sites vary depending on the situation, tubes can be inserted as high as the fourth intercostal space, to as low as the eighth, with the fifth and sixth intercostal spaces being the most common. These tubes drain the fluid, air, blood, and pus in diseases such as pneumothorax, hemothorax, pleural effusion, and empyema, and reestablish the negative pressure of the intrapleural space (Adler & Carlton, 2019). The presence of these substances causes the intrapleural space to lose its negative “suctioning” pressure, in effect, causing the affected lung to not expand properly (Adler & Carlton, 2019). Chest tubes are inserted to bring the lungs back to adequate functionality. Post-chest tube removal images also are common to ensure the lung is working properly.

### **Transabdominal (Percutaneous) Tubes**

Transabdominal tubes are inserted directly into the abdominal cavity or an abdominal organ by an incision. Transabdominal tubes include gastric tubes (G tubes) and jejunostomy tubes (J tubes). Both G and J tubes are placed for long-term or permanent use (Whitlock, 2020). G tubes and J tubes

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provide nutrition, fluids, and medications, and they decompress the stomach and remove stomach contents.

G tubes are specifically for the stomach. These are inserted directly into the stomach, typically by making an incision in the left upper quadrant of the abdomen (Whitlock, 2020). G tubes also are referred to as percutaneous endoscopic gastrostomy (PEG) tubes, which is the means by which G tubes are placed (Whitlock, 2020). Even though this is the process by which G tubes are placed, some medical personnel will use the terms G tube and PEG tube interchangeably.

J tubes are specifically for the middle small bowel, the jejunum. These tubes are inserted below the G tubes, directly into the jejunum, which is the middle third of the small intestine (Whitlock, 2020). J tubes are smaller than G tubes, limiting the substances that can be inserted through them. These substances include thin liquids and finely ground powdered medications (Whitlock, 2020).

Medical imaging of both G tubes and J tubes are similar; the only difference is the insertion site. When checking the placement of the tubes, either a water-soluble iodinated contrast media is used, or air also could be inserted carefully into the tubes (Schrage, 2020). Images are taken both before and after injection of the contrast media or air. G tubes and J tubes commonly are seen in medical imaging, and radiographers likely are going to be in charge of taking the images while also administering (or having the nurse administer) contrast media or air to ensure proper tube placement.

### Alimentary Tubes

Alimentary tubes consist of nasogastric (NG) and orogastric (OG) tubes. A type of nasogastric tube, a Dobhoff, also is commonly imaged. According to Whitlock (2020), NG and OG tubes typically are inserted for temporary usage. For example, the functions of NG, OG, G tubes, and J tubes are similar,

but G tubes and J tubes are utilized for the long term. NG and OG tubes have the same purpose, but they originate from different locations. The NG tube enters the alimentary tract via the nose, while the OG tube enters it via the mouth (Adler & Carlton, 2019). The primary function of NG and OG tubes is for administration of medications, gastric decompression, or removal of air/gas and fluids from the stomach after obstruction or trauma. A properly positioned NG and OG tube is indicated when the tip of the tube is positioned in the stomach (Adler & Carlton, 2019).

NG tubes are plastic or rubber and most are clear (Adler & Carlton, 2019). A Dobhoff is a very common type of NG tube seen in medical imaging. They are a smaller and more flexible form of NG tube, which makes them more comfortable for the patient (Al Salam, 2015). Because of the Dobhoff's small lumen size, these typically are used only for administration of fluids and medications, whereas thicker NG tubes are more commonly used for both suctioning and administering (Adler & Carlton, 2019). In the clinical setting, Dobhoffs commonly appear to be white with a blue tip. Knowing the visual differences between typical NG tubes and Dobhoffs is important so proper images can be taken to determine placement. Because Dobhoffs are more flexible, they more easily become dislodged into the bronchi of the lungs (Al Salam, 2015). Radiographers should take appropriate images when Dobhoffs are placed, which includes the carina to the stomach to ensure the tube is not in the lungs. Both NG and OG tubes also can become dislodged in the lungs, but it is not as common as with Dobhoffs (Adler & Carlton, 2019). Medical imaging before administration of fluids or medications is crucial for these tubes because if the tube is dislodged in the lungs, the patient could aspirate.

OG and NG tubes are similar in all but one aspect – OG tubes enter the alimentary tract through the mouth. Depending on the patient's situation, the physician will determine whether an NG or OG is preferred.

### Additional Radiographer Duties

Although it is important that the radiographer knows about the common lines and tubes, it is also important to remember a couple more related aspects. First, it is important to try and remove all external tubes and wires (EKG wires, oxygen tubing, etc.) out of the field of interest so these tubes and wires are not mistaken for the line or tube actually being imaged. Secondly, using personal lead markers to demonstrate the applicable side of anatomy is also very important. Cases of situs inversus shine light on this subject. Situs inversus is when the internal organs are a mirror image of normal anatomy (Genetic and Rare Diseases Information Center [GARD], n.d.). For example, when imaging for a central line placement, the line needs to be in the correct position in the SVC. If the patient happens to have situs inversus, the SVC would be on the opposite side of the body compared to "normal" human anatomy. If lead markers are utilized, this medical condition could be diagnosed more readily, and the central line would need to be positioned according to the patient's situs inversus anatomy. Using markers eliminates errors that could have been made post-processing. Therefore, markers result in a proper diagnosis and proper placement of the central line. Radiographers also should be familiar with their equipment. Post-processed images can better visualize the line or tube being imaged. Physicians also sometimes ask for the "ruler" feature to make measurements.

### Take-away Points

Radiographers need to know about the lines and tubes utilized for medical purposes. Although radiographers are not in charge of reading the images, understanding the different types of lines and tubes, their functions, and how they should be positioned within the body improves the image acquisition and evaluation processes. Medical imaging is such an important aspect of the medical field because it allows for visualization of the internal anatomy that cannot be visualized with

the naked eye. In the case of line and tube placements, it gives physicians and nurses the ability to check their line and tube positioning. By understanding the various lines and tubes, radiographers can help with the evaluation aspects and ensure the appropriate images are taken to fully visualize all important structures. Understanding the line or tube being imaged and what should be visualized greatly influences medical efficiency and productivity and overall improves the quality of care the patient receives.

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Save the date!  
The 2023  
KSRT Annual  
Convention  
will be  
March 30-  
April 1 at the  
Hilton Garden  
Inn in Hays.

## Continued from Page 3

second in membership participation in the five-state CE collaboration. The KSRT provided its offering in November.

**2022 Annual Convention:** Becky reported that four additional speakers are needed. The board discussed head count and food costs.

**Vendor update:** Five or six vendors are confirmed for the annual convention, with a total estimate of 15 vendors likely to come. Ronda is stepping down as the vendor coordinator, and the board is looking for someone to take over the responsibility.

**2023 Annual Convention:** Toni made a motion to set 2023 KSRT Convention dates as March 30-April 1 in Hays and secure the venue contract. Harmony seconded, motion passed.

## Other business

Two terms for the Kansas Board of Healing Arts Radio-

logic Technology Council are coming up in July. The board will compile a list of several members to recommend to the council for those terms.

## Action items

Program directors and board members will email Harmony imaging department contacts for 2022 KSRT Convention flyer distribution.

Board members and chairs need to send year-end reports to Denise by March 24 for inclusion in the packet for the annual convention.

## Announcements

The deadline for *The Rotating Anode* is Feb. 5.

The pre-convention board meeting was scheduled for 3 p.m. March 31 at the DoubleTree by Hilton in Lawrence.

**Adjournment:** Toni moved to adjourn the meeting, Harmony seconded, motion passed. The meeting was adjourned at 12:13 p.m.



*KSRT Annual Convention*



APPLICATION FOR MEMBERSHIP

THE KANSAS SOCIETY OF RADIOLOGIC TECHNOLOGISTS

By submitting this form, you are agreeing to abide by the Bylaws of the Kansas Society of Radiologic Technologists. You are also acknowledging the information submitted is correct and accurate. Dues must accompany this application.

FULL NAME \_\_\_\_\_
First Middle Initial Last Credentials

Street City State Zip

DOB \_\_\_\_\_ Email \_\_\_\_\_
Month Day Year

Phone Number ( ) \_\_\_\_\_ Date of application \_\_\_\_\_

Check membership category.

ACTIVE MEMBER: DUES \$50.00/Year
Certified by ARRT and Member of ASRT and practicing in the field of radiologic technology.
MUST SUBMIT COPIES OF ARRT AND ASRT CARDS

ASSOCIATE A MEMBER: DUES \$50.00/Year
Certified by ARRT and practicing in the field of radiologic technology.
COPY OF ARRT CARD MUST BE SUBMITTED.

ASSOCIATE B MEMBER: DUES \$50.00/Year
Persons practicing in the field of radiologic technology not certified by the American Registry of Radiologic Technologists and are not registry eligible; or, those persons interested in promoting the purposes and functions of the KSRT, but are not eligible for Active, Associate A, Life, Senior or Student membership.

SENIOR MEMBER: DUES \$25.00/Year
Certified by ARRT and 65 years old or more.
SEND COPIES OF ARRT CARD AND BIRTH CERTIFICATE OR DRIVER'S LICENSE.

STUDENT MEMBER: (STATUS APPLIES TO PRIMARY PROGRAM OF STUDY) DUES \$25.00/Year
Enrolled in an approved school of radiography for a MINIMUM of 24 months.

PRESENT EMPLOYMENT or SCHOOL: \_\_\_\_\_

STUDENTS ONLY: Date of Enrollment \_\_\_\_\_ Anticipated Date of Graduation \_\_\_\_\_

Continuous Renewal \_\_\_\_\_ New applicant \_\_\_\_\_ (PLEASE CHECK ONE)

\*\*\*Graduate Bridge Program: Certificate must be returned with membership renewal application and dues stated on certificate. Valid for primary program of study.\*\*\*

The KSRT values our volunteers! Which of the following would you be interested in volunteering for?

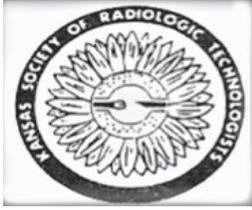
Circle all that apply: Committee Officer Speaker

"The Rotating Anode" is available electronically for all new members.

I would like to contribute to the Scholarship Fund for the amount of \$ \_\_\_\_\_ in addition to my dues. This DOES NOT qualify as a charitable deduction OR professional expense for tax purposes.

PLEASE RETURN TO:

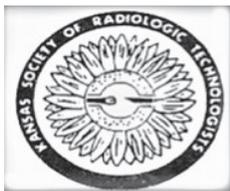
Denise K. Orth Executive Secretary, KSRT 1702 Mermis Court Hays, KS 67601 KSRT.exsec@gmail.com
Pay with PayPal or make checks/money orders payable to the KSRT. No partial dues accepted.
\$25.00 CHARGE FOR ALL CHECKS RETURNED FOR INSUFFICIENT FUNDS!



## KANSAS SOCIETY OF RADIOLOGIC TECHNOLOGISTS

### Scholarship Application Checklist

- Kansas Society of Radiologic Technologists member
  - Scholarship application
    - Essay.
- Students: Official transcript in a sealed envelope and letter of recommendation from clinical instructor or other supervising technologist.
- Technologist: Copy of ARRT card and letter of recommendation from a radiology technology colleague.
- All materials should be in one envelope and postmarked by Feb. 1.
  - Mail to:  
Denise Orth, RT(R)(M), FKSRT  
KSRT Executive Secretary  
1702 Mermis Ct.  
Hays, KS 67601
- Winners will be notified and must attend the Kansas Society of Radiologic Technologists Spring Convention to receive the scholarship.



**KANSAS SOCIETY OF RADIOLOGIC TECHNOLOGISTS**  
**Scholarship Application**  
**Deadline is Feb. 1**

**I. Applicant Certification**

I certify that I am a U.S. citizen, U.S. national or U.S. permanent resident, that this application information provided is true and correct to the best of my knowledge. I understand that any false statements made herein will void this application, and I will be ineligible for support from the KSRT Scholarship Fund. I hereby authorize the release of all information contained in this application packet as may be required to determine my eligibility for a scholarship. I hereby waive my rights to review any documents pertaining to my scholarship application once submitted.

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Date

**II. KSRT Member**

I am a member. Years of membership \_\_\_\_\_

I am sending in my membership now.

**III. Personal Information**

Mr. Ms. Name \_\_\_\_\_  
Last First MI

Mailing Address \_\_\_\_\_  
Number/Street (Apt#) City State Zip

E-mail \_\_\_\_\_

Phone (\_\_\_\_\_) \_\_\_\_\_

ARRT Certifications \_\_\_\_\_ ARRT #: \_\_\_\_\_

**IV. Educational Information**

Radiologic Science Program \_\_\_\_\_  
Name of Institution City/State

Program Director \_\_\_\_\_

Email Address \_\_\_\_\_ Phone (\_\_\_\_\_) \_\_\_\_\_

Anticipated Graduation date \_\_\_\_\_ / \_\_\_\_\_ GPA \_\_\_\_\_  
Month Year

**Program Type**

- Certificate Program
- Associate degree program
- Bachelor's program

**Area/Concentration**

- Medical Imaging
- Nuclear Medicine
- Vascular
- Radiation Therapy
- Sonography
- Other \_\_\_\_\_

**V. Letter of recommendation**

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Email address: \_\_\_\_\_

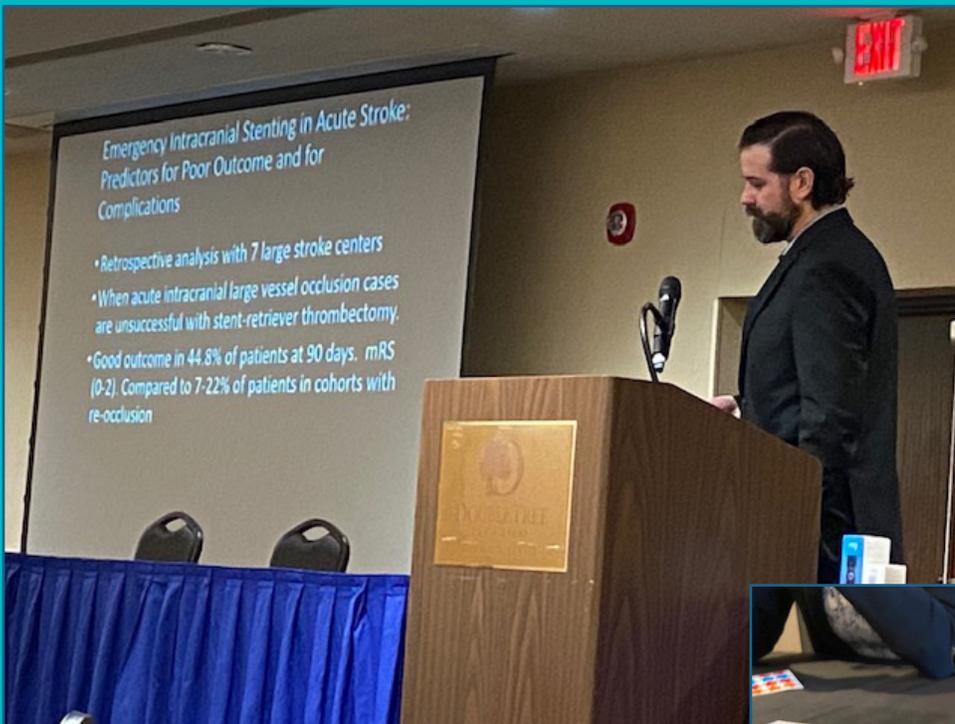
**VI. Essay**

Please provide a one-page typed essay describing why you deserve this scholarship. For objectivity purposes, do not include any statements that would identify your school/instructors or yourself. The essay shall be 12 point font Arial with single spacing and 1-inch margins.

Applications will not be considered if not complete. Please submit application and transcript to:  
Denise Orth, KSRT Executive Secretary  
1702 Mermis Ct., Hays, KS 67601

ADDRESS SERVICE REQUESTED

KANSAS SOCIETY OF  
RADIOLOGIC TECHNOLOGISTS  
1702 MERMIS CT.  
HAYS, KS 67601



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