THE AMERICAN REGISTRY
OF RADIOLOGIC
TECHNOLOGISTS®

Stories

OF QUALITY PATIENT CARE

Serving as an expert to patients

Time and discussion with patients

Social media temptations

A satisfying educational path

Contents

*Re*cognizing the ways that R.T.s step out of their standard day-to-day routines to become leaders and innovators, The American Registry of Radiologic Technologists® again eagerly shares with you some of most inspiring stories we've heard in the past year. These *Stories of Quality Patient Care* are about:

- Making time — even at 2 in the morning — for thoughtful patient education.
- Informing patients and physicians about radiation's risks and benefits, equipping them for an educated discussion.
- Demanding that fellow R.T.s continue to uphold ethics and patient privacy, despite temptations of social media.
- Supporting a future R.T. as she dreams of delivering memorably good care to her patients.

These are stories of collaboration with a cross section of other health care professionals and a call to action — to do more, to lead, to be the one to make a difference.

How will their stories cause you to *re*think the role you play in your workplace or school?

React

A team of radiologic technologists, physicians and radiology department nurses at Dartmouth-Hitchcock Medical Center (DHMC) in New Hampshire took it upon themselves to start a local campaign to promote patient safety in medical imaging.

You can, too.

The first step, the team says, is getting support from the administration and physicians. Budget and institutional support are essential, too.

"We have representation from all disciplines," says Image Right/Image Safe (IRIS) Co-chair Neal M. Boucher, B.S., CNMT, RSO, LSO, WSO CSI (ML). "We can't work in silos because we depend upon each other as the patient moves through the system."

One of IRIS's founders, Karen A. Burgess, M.Ed., R.T.(R)(M)(ARRT), also recommends setting a goal and formulating a meaningful mission statement. This is the statement that has guided the team at DHMC:

- To promote patient safety in medical imaging by initiating, supporting and coordinating activities designed to reduce radiation dose while maintaining appropriate standards of imaging quality
- To ensure that referring clinicians have all necessary resources and incentives to make appropriate decisions in the ordering of imaging procedures
- To raise public awareness of the uses, benefits, limitations and risks of medical imaging

Elevating the image of R.T.s

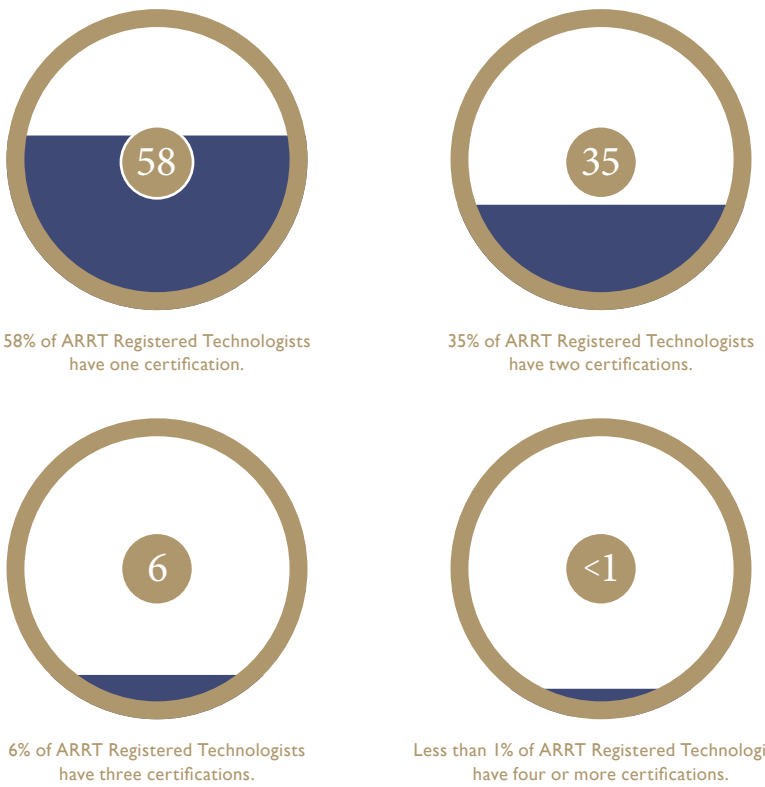
Co-chair Carolyn S. Palazzolo, M.S., R.T.(R)(CT)(ARRT), says the heart of the campaign is patient advocacy. But another result is the opportunity to elevate the R.T.'s image as an expert throughout the institution. In fact, this grassroots type of safety advocacy honors the tradition of the radiologic technology profession, she says.

"Technologists' history is a grassroots history that started with physicians and nurses doing x rays," she says. "Then our profession of radiologic technologists was created as experts in that field." ■

(Full article on next page).

By the numbers

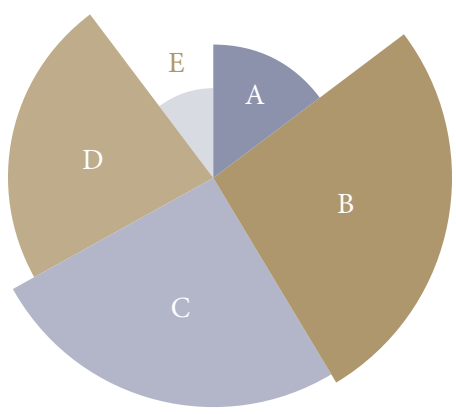
Multiple certifications



Registered Technologists with nine certifications

1 *out of* 323,492

Age of Registered Technologists



A. Age 29 and under
15%

B. Ages 30–39
27%

C. Ages 40–49
25%

D. Ages 50–59
23%

E. Age 60 and over
10%

Reconsider

the importance of serving as an expert to patients

Educational materials engage and empower patients.

Karen A. Burgess, *Left*
M.Ed., R.T.(R)(M)(ARRT)

Carolyn S. Palazzolo, *Middle*
M.S., R.T.(R)(CT)(ARRT)

Neal M. Boucher, *Right*
B.S., CNMT, RSO, LSO, WSO CSI (ML)

Two assumptions just don't fly anymore: 1) Patients need not be involved in decisions about their health care, including tests that expose them to radiation; 2) Patients will not make themselves knowledgeable about the risks and benefits of medical imaging.

Leading the way into a new generation of information-savvy health care consumers and collaborating providers is one of the goals of an educational campaign called Image Right/Image Safe — IRIS for short — developed by a team at Dartmouth Hitchcock Medical Center (DHMC) in Lebanon, N.H.

"We all face a credibility issue," says IRIS Co-chair Neal M. Boucher, B.S., CNMT, RSO, LSO, WSO CSI (ML), radiation and laser safety officer at DHMC. "Patients want to know, 'So, why should I believe you?' We need to be able to assure them that we are using science from the best scientists in the world and the best in history, that we use the best tools to get accurate doses, and that we are willing to network with their other health care providers to avoid duplicate tests."

> "With the Internet, the cat's out of the bag. We want to direct people to vetted, credible sources of information and encourage them not to dwell on misperceptions."

The value of engaging patients and fellow health care providers in a straightforward discussion about radiation became more evident three years ago, Boucher says, as news of the disabled Fukushima nuclear plant was on everyone's television set and Internet feed. Around the same time, mammography screening, CT lung screening and an increase in radiation dosing were topics of national attention.

Karen A. Burgess, M.Ed., R.T.(R)(M)(ARRT), clinical operations manager for the DHMC Department of Radiology, together with the Radiology Department Chair Peter K. Spiegel, M.D., organized the project mission, goals and objectives.

"Response to my presentations about IRIS, at the state and local level and also at the national level, affirmed the importance of the work we were doing," Burgess says. "I was reminded that, often, our human nature is slow to realize the current reality. We assume that people are reading and keeping up and that we are doing a good job with our information sharing and explanations about radiation safety and the state of imaging technology. However, the age of technology has moved forward faster than any of us realized, and the need for up-to-the-minute information, in multiple, easy-to-understand formats, was something that was desperately missed by patients and staff."

"Patients were trying to sort it out," he says. "We wanted to be their source of the best information."

Local campaign embraces national efforts

IRIS embraces the goals of the national Image Gently and Image Wisely campaigns. Development of IRIS started in early 2010 when a group of DHMC technologists, physicians and radiology department nurses began to meet regularly to address radiation safety concerns. One of its first tasks was to distribute Image Gently materials throughout the department and ask staff to sign the Image Gently pledge. Within weeks, 100 percent of the radiologic technologist staff and interventional radiology nursing staff had signed the pledge, as well as the tandem campaign pledge for Image Wisely.

Looking back to those early days of planning, IRIS Co-chair Carolyn S. Palazzolo, M.S., R.T.(R)(CT)(ARRT), still marvels at how quickly the program rolled out without a budget.

"Everyone was on board early," she says. "By the end of 2011, we had brochures and personal medical imaging cards available for patients in every radiology waiting room and the emergency department. Patients were taking them and appreciating them."

Wheel of Photons

Now, IRIS has six brochures, each explaining a discipline, and more on the way. The IRIS team also provides hands-on education at the tabletop display it sets up by the medical center cafeteria, at a local farmers market and at health fairs. Patients and staff are drawn to the table by the "Wheel of Photons" game. You just spin the wheel, guess at a multiple-choice question and win a prize. Of course, an educational discussion ensues.

"The most common question we get is, 'Does MRI produce radiation?' We also get dose questions for CT, based on the patient size," says Christine T. Kvinlaug, R.N., clinical operations manager in the Department of Radiology. "Radiation can be dangerous and patients understand that. So we try to quantify what that means."

Palazzolo agrees: "Sometimes that leads to a hard conversation about risks vs. benefits."

Boucher, who also helps staff the display, says it helps to demonstrate a series of natural or household materials that create radiation.

"We have to understand radiation is all around us. For example, some Fiesta dishes — orange and yellow pieces produced prior to 1972 — emit a low level of radiation," he says. "With the Internet, the cat's out of the bag. We want to direct people to vetted, credible sources of information and encourage them not to dwell on misperceptions."

> "It is incumbent upon us to…see [our]selves as champions for an educated patient."

Collaborative decisions

And this greater understanding leads to the ultimate goal, which is creating a foundation of accurate information for patients and physicians in a collaborative discussion about health care.

"It is incumbent upon us to meet the needs of the patient," says Kvinlaug. "R.T.s and the teams they work with need to see themselves as champions for an educated patient."

The patient imaging history card is a progressive step, the team agrees. The tool, much like a child's immunization card, is available now in paper form and soon to be available via an online portal. It will allow the patient to log each radiology exam. That way, every physician who sees the card has a quick and easy record of tests. This can help avoid duplicate tests and also inform the physician about which previous test results may be available for comparison.

"We have to empower patients to make the best decisions," says Mike Barwell, DHMC's media relations manager. "Shared decision making used to be: 'I'm the doctor and I'll share my decision with you.' But now it's the more common practice to make sure patients are informed and are an active part of the decisions. This is a different generation of health care." ■

Karen K. Seaman
R.T.(R)(M)(ARRT)

Karen K. Seaman, R.T.(R)(M)(ARRT), of League City, Texas, applauds the rapid changes she has seen in her 33 years in mammography. She's gone from using a cardboard holder to charged plates to 3D machines. "It's getting better," she says. "A lot better."

However, with advancements can come costs. And one cost — less time for patient education — is too pricey for her. So she took matters into her own hands or, actually, fingertips, as she wrote a book.

A Breast of the Situation was published in 2011.

"When we started out in this profession, mammography wasn't something where you just ran women in and out," says Seaman, who is an independent contractor working in the Galveston area. "Now, with more sophisticated technology, we can trust the tests. But we spend a lot less time educating women. Those patients can Google anything. But we can't assume they get educated."

Seaman says the transition from film-screen to digital marked a decline in the time an R.T. could spend with a patient in mammography.

- When a clinic calls a patient late on a Friday afternoon to schedule a Monday appointment to reexamine an abnormal mammogram, resulting in sleepless nights and fears from an uneducated Internet search for possible answers.
- When a patient gets an annual mammogram at a new clinic for convenience's sake, resulting in a plan for an unnecessary biopsy when inconclusive results weren't compared to previous studies.

"That's why I decided to write the book," Seaman says. "These cases were happening over and over again. The more we understand, the less fear we have. The less fear we have, the more options we have."

Communication skills

Along with providing an insider's point of view for any reader, Seaman is hopeful that her book will inspire her colleagues in the field to understand the value of patient support and education.

"In my experience, you have to explain. If you are spreading the tissue, explain that you are doing that so you can see if something is hiding. If you are adding compression, explain that you don't want the tissue to move. With the patient on board with what you're doing, she might tolerate a bit more discomfort," she says. "You have to use all of your communication skills to get a good image."

And a good image can save a life.

"If I do a sloppy mammogram, we can miss cancer," Seaman says. "You need to treat every patient like you would treat your mother or friend. You help them understand. Even as you have technological factors going on in your head and you know how to do the exam correctly, you need the patient to understand and trust you." ■

Renew

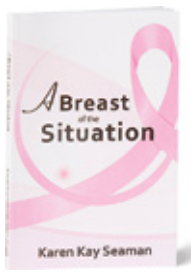
the need for time and discussion with patients

"It's a balance, because a medical center needs to increase its patient load to make money to buy a machine that will better serve its community with new technology," she says.

Even if she couldn't take as much time as she'd like during the 28 to 30 exams she was performing each day, she found time at 2 and 3 a.m. She'd wake up and write stories about common cases she had seen, such as:

- When an inexperienced mammographer fails to explain to the patient the importance of properly removing deodorant and powder from the breast, resulting in fear and additional testing because the powder and the aluminum chlorohydrate in the deodorant mimic calcifications in the breast.

"You need to treat every patient like you would treat your mother or friend. You help them understand. Even as you have technological factors going on in your head and you know how to do the exam correctly, you need the patient to understand and trust you."



A Breast of the Situation is available at karenkayseaman.com and at amazon.com.

By the numbers

Women hold more than 99% of Mammography and Breast Sonography certifications.

99 percent

72% of all ARRT Registered Technologists — 234,000 out of almost 325,000— are women.

72 percent

React

In her book, *A Breast of the Situation*, Karen K. Seaman, R.T.(R)(M)(ARRT), offers insights based on her decades-long career in mammography. She points to many real-life cases where she has seen unnecessary and intense anxiety, unnecessary or inconclusive images, and unnecessary expenses — and even missed cancer. Here are two tips to consider:

Listen to the patient

In the story of a patient named Linda, a compassionate technologist listened to Linda's concerns about a specific lump that the patient had not communicated to the physician. While the physician had ordered a screening exam, the technologist realized that a diagnostic mammogram would be important. She called the physician's office to relay the information as conveyed by the patient. After looking at the results of the diagnostic mammogram, the radiologist found a subtle change in the structure of the tissue, which was further studied with an ultrasound-guided core biopsy.

Encourage self-exams early and often

Seaman writes: "In order to find cancer in its early stages you must 1) do monthly breast self-exams, 2) have an annual breast exam with your physician, and 3) have a yearly mammogram beginning at age 40. There are several types of breast cancer. If you do not know if there is a lump or change in your breast and the doctor or technologist doesn't know either, a cancer can be missed. Not all lumps felt in the breast show up on mammograms. Mammograms do find the cancers we cannot feel and can miss the cancers we do feel." ■

React

Some radiology schools and workplaces have policies about employees' use of social media. Does yours? If a policy doesn't exist, can you help put one in place?

"It's so important that we as R.T.s find out if a policy about social media is in effect in our institutions," says Lynette K. Watts, Ph.D., R.T.(R)(ARRT). "If one isn't in place, you might have to go through the chain of command, but you should feel empowered to spearhead an effort and get others to work on it together. Have the conversation. Stand out in a positive way. Absolutely, social media is not going away — ever."

Watts sees this as an opportunity to champion not only patient care, but also professional reputation.

"Our culture is changing, and the world is getting smaller," Watts says. "R.T.s need to be part of the front line of keeping patients safe and not sharing what seems 'cool' in a specific moment." ■

Resolve

to uphold ethics standards in times of social media temptations

Lynette K. Watts
Ph.D., R.T.(R)(ARRT)

In the blink of an eye, you can derail your career as an R.T. and, even unintentionally, betray the public's trust in your profession. That's the message from Assistant Professor Lynette K. Watts, Ph.D., R.T.(R)(ARRT), in the Department of Radiologic Sciences at Midwestern State University in Wichita Falls, Texas.

"In this day and age of social media, you can share anything with anyone in an instant. It's that quick," Watts says. "Whether you are an R.T. or a radiography student, you see something cool in the operating room, and it's so quick and so easy to share it with your friends. Here's what you need to know: Don't."

About a year ago, Watts, who provides masters-level instruction to students who are on a path to becoming educators or administrators in a school or hospital radiology department, started doing some informational research on social media as it relates to her profession.

She soon found her research findings so fascinating that she built them into a presentation that she shares with her students, as well as professional groups such as the Texas Society of Radiologic Technologists and others.

Two key findings are:

1. That goofy photo of you at a friend's party may get laughs from some, but not a future employer. A 2013 CareerBuilder survey found that 43 percent of hiring managers who use social media to research job candidates have found information that has caused them not to hire a candidate. However, if you have posted information about a unique professional skill set you have as an R.T., or a valuable seminar you attended, that will be seen as positive by a future employer, Watts says.
2. Right now, the growing list of high-profile cases where medical professionals posted privacy-breaching images and information on social media does not include R.T.s. It should stay that way, Watts says.

"The most shocking story was about nurses in a California emergency room with a victim of multiple stab wounds. They took photos while the patient was dying and posted them online," she says. "I cannot wrap my head around that. It's so callous."

Being recognized

The challenge with posting medical radiography images, she says, is that no matter how unidentified it seems, just a few facts — the date, name of the health care center, or even the shift you were working — can be pieced together to create a story about the patient. If a viewer recognizes the story, he or she could very well identify the patient. That could morph into a costly legal situation, as well as be considered a breach of ethics.

"This relates to our ethics as R.T.s," says Watts. "Even though you may be posting a photo of an image, you could be violating HIPAA. You really have to be careful about what you are doing before you hit the 'post' button."

> "[Nurses] took photos while the patient was dying and posted them online."

ARRT's Director of Ethics Requirements Kellie Reynolds, J.D., R.T.(R)(MR)(ARRT), agrees.

"Medical imaging is performed for the benefit of the patient," Reynolds says. "R.T.s should carefully consider whether they are authorized to post the images and whether posting the image serves the best interests of the patient. Even in circumstances where the technologist believes there is a benefit to posting content and that it does not violate patients' rights to privacy, unauthorized posting of material is still problematic."

While ARRT does not have a Rule of Ethics that addresses social media specifically, the organization is concerned with any conduct that violates ethics, regardless of whether the violation happens on social media, Reynolds says.

"It comes down to common sense, in some cases," she says. "R.T.s need to maintain a high level of ethical conduct and use professional judgment." ■

> "In this day and age, you can share anything with anyone in an instant. Here's what you need to know: Don't."

By the numbers

At the end of 2013, there were more mobile devices on Earth than there were people.

By the end of 2014, 53.2 million American adults will own a smartphone.

More than 500 million tweets are sent a day — that's 5,700 each second.

Recognizing Royce Osborn Minority Student Scholarship winners

Funded by ARRT and administered by the ASRT Foundation

With various career backgrounds and equally wide-ranging long-term professional goals, Osborn scholars exemplify diversity. But shared traits such as passion for patient care, gratitude for the financial support and commitment to education show how much they actually have in common.

Here are a few thoughts from some of the Osborn scholars for 2014…

Janique Norton, Philadelphia, knew she wanted to work in radiology back when she was earning prereqs to get into the program. On the first day in the program, she realized that she wanted to specialize beyond radiography. When she completes her associate degree program at Drexel University, she plans to pursue a bachelor's, then master's, degree. "My plan is to be all I can be in my career." She seems well on the way.

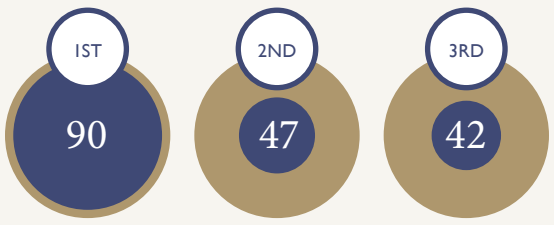
After earning a bachelor's degree in business management, *Ashley Gerald* began working as an administrative coordinator for a company that develops and distributes gaming devices. Fast forward to now, enrolled in a certificate program at the Shore Medical School of Radiology, she's looking forward to working in a hospital setting, exploring the possibilities in MRI, mammography and radiation therapy.

Roecene Schofield got to accompany her grandmother through a CT procedure, during which Grandma whispered to Roecene, "This is the line of work that you should be doing." Now, enrolled in an associate degree program in the radiologic sciences at Oakland Community College, she knows that Grandma was right. Next up: mammography, MRI, maybe even Registered Radiologist Assistant.

Working as a surgical technologist in labor and delivery, *Jalyssa Steele* always had a love for mothers-to-be. "I experienced what it felt like to *be* a mother." Now she plans to specialize in sonography so she can know how it feels to see babies during pregnancy. Jalyssa is enrolled in a bachelor's degree program in the radiologic sciences at the University of Mississippi Medical Center in DeKalb, Miss.

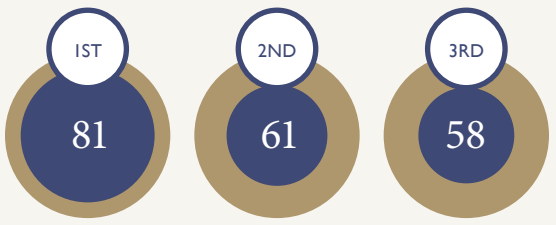
By the numbers

Radiography



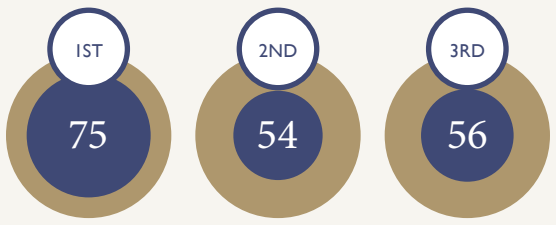
Since 2000, 90% of candidates passed the Radiography exam on their first attempt. 47% of candidates taking a second attempt passed and 42% of candidates taking a third attempt passed.

Computed Tomography



Since 2000, 81% of ARRT Registered Technologists passed the Computed Tomography exam on their first attempt. 61% of candidates taking a second attempt passed and 58% of candidates taking a third attempt passed.

Magnetic Resonance Imaging



Since 2000, 75% of ARRT Registered Technologists passed the Magnetic Resonance Imaging exam on their first attempt. 54% of candidates taking a second attempt passed and 56% of candidates taking a third attempt passed.

Redirected

to a successful, satisfying educational path

Joleen Evans
Student, Portland Community College

A few years ago, Joleen Evans took some time off from college to figure out what she wanted to do with her life. Not an uncommon story. She worked some odd jobs and kept her eyes open for a career path she could live with. When Portland Community College's radiography department offered a job-shadow opportunity, she figured it couldn't hurt to try.

Looking back, she remembers precisely that it was when she viewed a "live" x ray of a lumbar puncture that she was hooked.

"I was on a journey to find out what's right for me and, in that moment, it happened," she recalls.

In 2012, she enrolled in the radiography program at the college. A year later, she was named a recipient of the American Society of Radiologic Technologists (ASRT) 2013 Royce Osborn Minority Student Scholarship. The scholarship program awards $4,000 each year to five minority students with outstanding academic records.

Evans says she was just settling into her classroom seat when her cell phone rang. She stepped out of the room to answer the call, which turned out to be an ASRT staff member with the good news she had been selected to win the scholarship. That news struck Evans as a surprise, honor and relief. She was scraping by financially.

"With the scholarship, I felt I could breathe again," she says. "It validated, in a sense, that I'm in the right field and on the right track."

Opening doors

The scholarship boosted her self-esteem and opened the door to ASRT membership, which has, in turn, opened more doors for her. She joined the Oregon Society of Radiologic Technologists and was selected to participate in the ASRT Student Leadership Development Program. As part of the leadership program, she received an all-expenses-paid trip to the June ASRT Educational Symposium and Annual Governance and House of Delegates Meeting in Orlando. She attended educational courses specifically designed for students and was assigned a professional mentor.

Evans' physics instructor, ARRT Trustee Barbara J. Smith, M.S., R.T.(R)(QM)(ARRT), FASRT, FAEIRS, isn't surprised to see her succeed. Smith describes Evans as "determined."

"I see her outside of class time up here at the college working on assignments," Smith says. "This shows her dedication to learning and that she wants to do the best job possible, whether that is here at school or working at the hospital."

Determination has served Evans well as she continually learns to manage test anxiety. Cold sweats and a racing heart make computerized tests, in particular, a challenge.

"I really wasn't sure how I was going to deal with that," Evans says. "I've spent this whole two years in school trying to manage it."

Evans went to Smith for advice.

"Barb is one of my main instructors," Evans says. "She's a spitfire, man, and she'll let you know when something isn't right. But she's there for you 100 percent. If you have a problem, she'll help you out."

Smith encouraged Evans to practice taking tests in a noisy place to get used to distractions. The advice helped.

Memorably good care

"I still have much to learn and to fine-tune what I already know so I can be the kind of technologist I want to be," Evans says.

Along with performing clinical training at Legacy Meridian Park Medical Center in Tualatin, Evans also works as a transporter there in hopes of paving the way to future employment after she sits for her ARRT exam in August.

Looking ahead to her career as an R.T., Evans plans to pursue certification in CT. Or maybe management. And she'd like to serve as a mentor to students. While those details will sort themselves out, she is certain that she wants to be the kind of R.T. who will comfort a patient with a warm blanket and a kind word.

"I want to provide memorably good care," she says.

Smith has no doubt of that: "Joleen is quiet, but determined. I can see that her quiet manner will reassure patients that she knows what she is doing and will help relieve any anxiety they may have about their exam." ■

Recapping the Numbers

323,492

Registered Technologists in the U.S.

States with most Registered Technologists

Texas	Florida	California	Pennsylvania	New York	Ohio
7.10%	7.00%	6.99%	5.25%	5.11%	4.73%
22,658	22,975	22,596	16,987	16,536	15,288

According to ARRT's July 2014 census, Texas, Florida, California, Pennsylvania, New York and Ohio have the most Registered Technologists in the U.S. Together, they make up roughly 36% of all U.S. Registered Technologists.

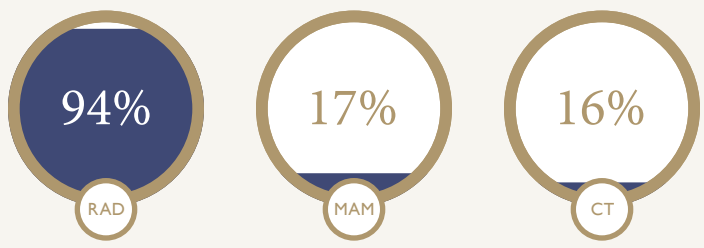
Registered Technologists outside the U.S.

756 *of* 1,061 *are in* Canada

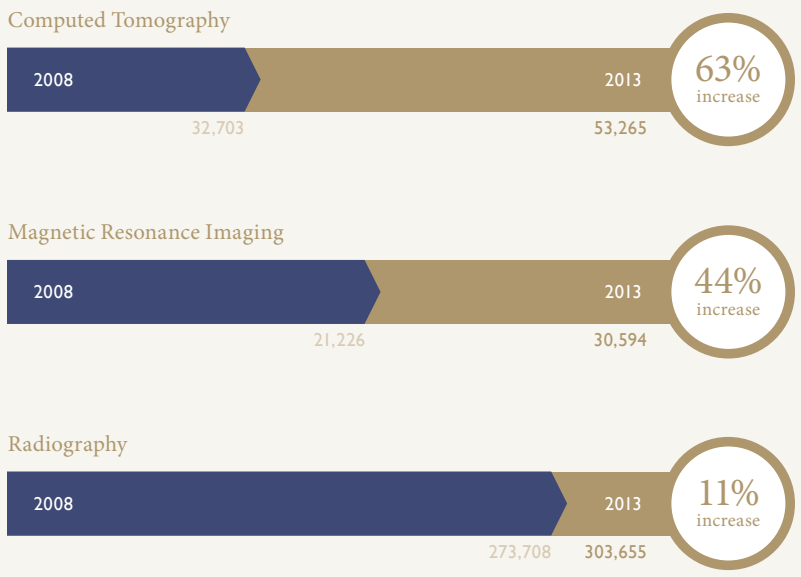
That represents 71.25% of all non-U.S. Registered Technologists.

Data according to ARRT's July 2014 census.

Most popular certifications



Growth in disciplines of Registered Technologists



The American Registry
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Stories

OF QUALITY PATIENT CARE

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Time and discussion with patients

Social media temptations

A satisfying educational path

Plus: A special poster