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LEARNING THE

LINGO

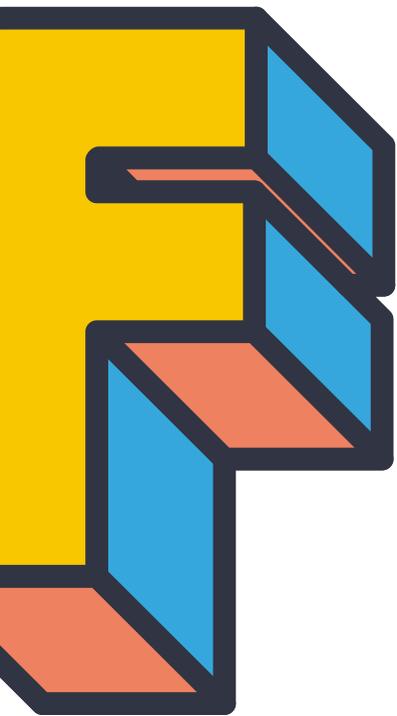
One of the biggest challenges for students and even seasoned radiologic technologists is learning the lingo.

BY KELLY KOEPKE, ASRT SCANNER CONTRIBUTING WRITER

AEC • B-mode • Cassette
Cone down • Digital pan
Incidentaloma • Kerma

WARO

Cone down • Digital pan
Incidentaloma • Kerma
Shark bite • Spiral CT
Technique chart • UTE
Wet read • Xeroradiograph



or a profession that is inherently visual, radiologic technology has many words. Managing terminology isn't easy. Each practice area has its own set of technology and equipment, and specific terms with specific meanings for specific situations and audiences.

The wider medical field is also full of jargon, scientific terms and abbreviations that require translation into ordinary language for patients and others. New technologies emerge practically every day and existing ones change rapidly. Throw in regional and generational differences, and even the most experienced technologists can find themselves scratching their heads when an order comes down.

"What the heck is a UTE?" That was what Hannah Harnden, B.S., R.T.(R)(MR)(CT), of Medical Center of the Rockies in Loveland, Colorado, asked herself when it showed up on an order. A newer technique for magnetic resonance imaging, UTE stands for ultrashort echo-time.

Hannah said she relies on radiologists to help translate and clarify what a doctor wants in a procedure she can perform. "The orthopedic surgeon wanted to see the cartilage in a patient's knee, and specified this scan instead of our standard exam. It's a modified T(2) sequence that is supposed to be good to see cartilage," she said.

One term that Hannah uses occasionally is incidentaloma, a finding on a scan not related to the reason for the exam. "For example, if a patient comes in, and the scan finds they have a cyst on the brain, but that's not what's causing the pain, we'd call it an incidentaloma. I learned that one in school in the Midwest, but a co-worker from Georgia didn't know it. It might be regional."

She also likes the phrase "shark bite" to refer to the moiré effect created by interference patterns in MR, seen when acquiring gradient echo images using the body coil. The banding appearance looks a bit like the wavy outline of a shark's bite, hence the name.

JARGON AS SHORTHAND

Jargon is often used in professions as a shorthand to make communication efficient, faster and easier. By learning and using the lingo, health care professionals signal that they are competent among their peers.

Colleen Glenney Boggs, associate professor of English at Dartmouth College, summed this up in her article *In Defense of Jargon*, "Jargon condenses meaning and allows us to share information effectively. ... It is deeply meaningful to the people who use it."



Sometimes, jargon can show someone's generation. Do you still say dial someone up, even though dial telephones are a thing of the past?

For example, R.T.s sometimes say "cone down" instead of collimate. Both words mean to narrow the beam of x-rays, originating at a time when technologists manipulated actual physical cones to narrow the beam. Today, this narrowing is done inside the machine, and any physical devices are controlled by a computer. However, technologists still say cone down.

As radiography moved away from film imaging to digital technology, chemicals and processing became unnecessary for creating an image. But many medical professionals still use the term "wet read."



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Carolyn Palazzolo, M.S., R.T.(R)(CT)(QM), advanced imaging supervisor at Rutland Regional Medical Center in Rutland, Vermont, points to that phrase and one other that have their origins in the past.

“Back in the day,” she said, “when a doctor wanted an urgent reading of the film, the film would actually be dripping wet from the processor when you brought it out. You didn’t wait for it to dry. It should now really be called an immediate or stat read, but we still call it a wet reading.”

TERMINOLOGY SIGNALS PROFICIENCY

Nicole Radziwill, writing in *Quality and Innovation*, says, “The use of jargon — or the avoidance of jargon — can either communicate competence in a field or alienate people who need to know more about it.” In other words, using terms incorrectly can point to someone’s inexperience or exclusion from the profession. After all, technologists are expected to be proficient in the idiom of their equipment and the output of the equipment. However, doctors requesting exams, and even the radiologists who read them, are not always familiar with technologists’ vernacular.

“A lot of times, we receive orders in a particular modality that exclude a specific part of the body we’re supposed to image in order to answer their question, too. The doctors don’t know the lingo. There is definitely a gap in the industry from technologists to doctors, because imaging is a realm of its own. So when they use the lingo in the wrong way, they won’t get what they

want. It’s up to us to understand and interpret what they want into the language that we use,” Carolyn said.

The illustration she gives is an order for an abdomen only computed tomography scan, but then the technologist discovers the doctor is worried about an appendicitis and pain in the right lower quadrant. She points out that an abdomen scan typically ends at the iliac crest and does not scan into the right lower quadrant. If the technologist does not notice the added information, the patient may have had to return for a second scan of the pelvis.

“It kind of clouds how you think about the doctor, too,” she adds. “Then you try to gently coach them to use different terminology. It’s just not their

wheelhouse. They may be proficient at their specialty, but not necessarily at the imaging component. And as technologists, we are equally not accustomed to their jargon and could definitely learn from each other.”

IMPROVING TECHNOLOGY BRINGS ITS OWN TERMS

Randy Griswold, M.P.A., R.T.(R), a semi-retired technologist who has spent more than 25 years as an educator, also worked for a medical imaging equipment manufacturer. He had contributed material to Carlton, Adler and Balacs’s 6th edition of *Principles of Radiographic Imaging*, specifically focusing on digital imaging. He also conducts ASRT Live webcast presentations. Randy reflected on terms from years past that the profession no longer uses, which is a result of the transformation of medical imaging into the digital realm.

One of them is xeroradiography, a type of x-ray imaging where an image is recorded on paper rather than on film. Xero means dry in Greek. This process involved neither wet chemical processing nor the use of dark room, but did require more radiation exposure. Historically, the technique was used in mammography prior to the introduction of digital technology.

“Xeroradiography was a term a popularized in the 1970s and ’80s by Xerox. It went by the wayside for a couple of reasons. Doses were very high, and Xerox owned all the technology. Then film and ultimately digital technology improved. The spatial and low contrast resolution

with film eventually matched xeromammography and at a significantly lower patient dose. It takes a lot of money and R&D to stay in medical imaging,” he said.

Over the last decade, technique charts have been going by the wayside, too, Randy said, and no one talks about dark rooms anymore. “We used to use technique charts that listed exposure factors for optimum image quality for a specific body part. You’d pull out a combination of exposure factors and get a good product every time, like using a recipe. Experienced R.T.s would have these memorized. But digital technology has made reliance on technique charts even less than before and in some cases the equipment will automatically choose what’s ‘right.’”

Calling the digital panel a cassette is another holdover from the days when radiography film was indeed held in a light-tight container called a cassette. The cassette would be swapped out between scans. Digital technology has replaced film cassettes with digital detectors that don’t have to be removed after each exam.

“We’re trying to get the profession to use the more appropriate term ‘panel,’” said Randy. “That’s vital because an x-ray cassette costs a few thousand dollars and digital panels cost \$80,000 or more. If a cassette is dam-

TECH

- **AEC**
Automatic exposure control.
- **Digital panel**
The image capture device.
- **B-mode**
Brightness mode on ultrasound machines, now being replaced by 2-D, 3-D and 4-D.
- **Incidentaloma**
An incidental finding not related to the original diagnostic inquiry.
- **Cassette**
A light-tight container for x-ray film.
- **Kerma**
Kinetic energy released per unit mass, a measure of the amount of energy transferred from photons to electrons per unit mass at a certain position.
- **Cone down**
To narrow the beam of an x-ray.

aged and needs to be replaced it's no big deal. But replacing a digital panel is incredibly costly. We must use the correct terminology because it shows respect for the technology."

In the world of sonography, one term is morphing to reflect the advancement of technology, too. Ultrasound machines once and sometimes still do have a brightness mode feature, shortened to "b-mode." This option would take the view to a grayscale and a two-dimensional image. But b-mode was easier to say and shorter to print on a button than grayscale.

Now, ultrasound machines have 3-D and 4-D functionality, and the b-mode option and language is changing into 2-D, 3-D and 4-D, said Diana Mishler, R.T.(R)(S), RDMS, a diagnostic medical sonographer with Marion General Hospital in Marion, Indiana.

"We deal a lot with obstetric exams," she said. "We used to call an anembryonic pregnancy a 'blighted ovum,' which had such negative connotations and felt like blaming the patient. Anembryonic does not have those overtones."

Ginger Griffin, R.T.(R), FASRT, CSHA, HACP, frequently reviews accreditation materials, which include new terms and standards for her job in compliance and accreditation for Baptist Health System in Jacksonville, Florida.

Kerma is a new term coming up now, she said, in reference to documenting

the dose a patient receives during fluoroscopy. Kerma, an acronym for kinetic energy released per unit mass, measures the amount of energy transferred from photons to electrons per unit mass at a certain position. It is related to, but not the same as absorbed dose, which measures the energy deposited in a unit mass at a certain position.

According to Ginger, positioning terms have changed over the years, too. There are radiography exams technologists used to perform in the 1960s and '70s that are no longer relevant because the technology has improved, she said. "We did pneumoencephalograms. They literally placed air into the brain! We also used to do pelvimetry, an x-ray of a pregnant woman's pelvis to see if it was wide enough to give birth naturally," she said. "Those have been taken over by CT, MR and ultrasound."

Ginger also said that some abbreviations she still uses cause people outside the profession to gasp or chuckle, as some terms used internally have completely different meanings in the outside world. "We used to use SOB for short of breath. I still use CASE – copy and steal everything. And I've got a great joke about a judge and ED – the emergency department!"

When dealing with patients or nontechnologists, then, keeping technical talk to a minimum is clearly best. But when among peers, patter away with the patois! And ask questions when an unfamiliar acronym, idiom or term pops up. Learning the lingo can be challenging, but it can also be a way to show competence and knowledge in this complex field. *S*

TERMS

- **Shark bite**
The rippled, moiré effect seen on some MR images.
- **Spiral CT**
A faster CT exam wherein the machine scans the body in a spiral path.
- **Technique chart**
A reference for calculating proper dose.
- **UTE**
Ultrashort echo-time.
- **Wet read**
To review a radiographic film immediately following processing of the film (i.e., while it was still "wet" from processing).
- **Xeroradiography**
An obsolete form of radiography used paper instead of film.