

Case Study: Order and Unity



Texas radiologists create a radiology utilization conference to educate non-radiology clinical staff on appropriate image ordering procedures.

By Chelsea Krieg

Key Takeaways:

- Nearly 400 clinical staff members attended a radiology utilization conference, emphasizing radiology's instrumental role as a leader in patient care initiatives.
- The 2015 conference facilitated increased communication among specialties, and conference attendees have since aligned with national benchmarks for ordering radiology exams.
- The University of Texas Southwestern Medical Center hopes to broaden this initiative nationwide by providing online CME courses that target various specialties.

On a sunny Saturday in May 2017, nearly 400 primary care physicians, specialists, nurse practitioners, physician assistants, technologists, and nurses crowded into the Gaylord Texan Convention Center in Grapevine, Tex. Despite the beautiful spring weather, participants eagerly gathered indoors to attend the second "The Right Scan from Head to Toe" radiology utilization conference, where they would learn about and discuss best practices for enhancing performance-based metrics when ordering radiology exams.

This continuing medical education (CME) event, organized by the University of Texas (UT) Southwestern Medical Center, began as a response to an observed overuse and/or inappropriate use of radiology exams by health care providers, which mirrors a well-documented national trend. The conference was constructed as an effort to help those individuals learn appropriate utilization of diagnostic imaging tests and image-based interventions on common and challenging clinical presentations.

These two CME events emphasized multidisciplinary collaboration and led to a demonstrable decrease in the number of inappropriate radiology exams ordered among attendees. The growing success of these conferences has since catalyzed an initiative to work toward providing similar face-to-face and web-based events throughout the country.

How It Began

After the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) was passed, establishing new payment methods for treating patients on Medicare and providing opportunities for value-based initiatives that seek to improve care for those patients, leadership committees at the UT Southwestern Medical Center set to work brainstorming ideas for delivering better quality patient care while lowering costs.

After examining claims data and deeming inappropriate use of imaging a critical area with opportunity for improvement, the Radiology Appropriateness Subcommittee, a branch of the medical center's Accountable Care Organization (ACO),



Nearly 400 clinical staff members gathered at the May 2017 conference at the Gaylord Texan Convention Center in Grapevine, Tex.

began discussing the reason behind some of the medical organization's ordering challenges.

The committee discussed difficulties in changing patterns of imaging utilization when it came to physicians, particularly primary care physicians, ordering the appropriate exam for the patient. They determined that most of the errors were due to a lack of understanding of the radiology field and which procedures are the most appropriate or necessary for which patient conditions.

"We came to an epiphany: Why should we expect other professions in medicine to be knowledgeable about our specialty to the degree that we are?" says Cecelia C. Brewington, MD, chair of the ACO utilization management committee, diagnostic radiologist, radiology professor, and vice chair in the department of radiology at UT Southwestern. "That's like expecting the radiologist to know the exact best surgical procedure to perform when it's not his or her specialty."

The committee also discussed that, while the PACS has helped to enhance imaging expediency, it has also widened the communication gap between radiologists and ordering physicians.

With these challenges in mind, and with the encouragement of the hospital administrators, the Radiology Appropriateness Subcommittee helped

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Cecelia C. Brewington, MD, chair of the ACO utilization management committee, diagnostic radiologist, radiology professor, and vice chair in the department of radiology at UT Southwestern, was instrumental in organizing and implementing both the 2015 and 2017 conferences.

create an organizing committee to introduce a CME program that would address ordering appropriateness problems, while simultaneously encouraging communication between radiologists and ordering physicians. Brewington, who specializes in cross-sectional body imaging, and co-course director and member of the Radiology Appropriateness Subcommittee Ivan Pedrosa, MD, who specializes in MRI, have seen firsthand just how frequently inappropriate imaging occurs, particularly within their areas of expertise. They were both were passionate about working to create change in this area.

“In discussing some of the needs of the ACO members, and specifically primary care providers, we discovered that inappropriate ordering wasn’t due to a lack of desire to order the appropriate exam; it was due to the lack of knowledge about what the right exam should be,” Brewington says. “We discussed how each field of medicine often directs CME to its own physicians and realized that we don’t often offer CME to other specialties. That is where the idea for the conference came from; we wanted to offer a CME event by radiologists for non-radiologists.”

These conversations led to the birth of the first radiology utilization conference in 2015, and the overwhelming success of the first event encouraged UT Southwestern to plan and hold a second conference a year later.

Planning the Events

As with any major event, it took time to organize, fundraise, and coordinate the conference. In planning both meetings, the committee used sources such

as the [ACR Appropriateness Criteria](#), [Choosing Wisely®](#), and [Image Wisely®](#) to search the literature for information on exams that have been proven to be overutilized or inappropriately ordered. The CME organizing committee found that lower back pain, for example, was at the top of the list for inappropriate image orders.

Each event took approximately eight to 10 months to plan. The administrative team also worked closely with the radiology department’s creative services team, which includes a photographer, medical illustrator, social media specialist, graphic designer, and marketing experts, to conceptualize and implement the event. Together, the team compared calendars with other specialties to determine the best time for the conferences, brainstormed ideas for the best ways to engage non-radiology audiences, and developed marketing strategies for their own hospital system and outside providers.

After determining potential topics of interest for the conference, the organizing committee convened a group of experts in each subject. To emphasize the credibility of the radiology perspective, the committee knew it would be important to provide perspectives from other pertinent fields.

To gain these diverse perspectives, the organizers recruited from various fields. For example, on the topic of lower back pain the experts included not only a neuroradiologist, but also neurology and spine surgeons, and physical medicine and rehabilitation physicians. These subject-matter experts reviewed the literature and came to a consensus on the best management strategy for patients who presented with back pain.

Co-directors Brewington and Pedrosa then selected members of the back pain group to present both



A multidisciplinary panel — including Neil M. Rofsky, MD, FACR, Carlos Bagley, MD, Vlad Zaha, MD, PhD, Alison Leston, MD, PhD, William Moore, MD, Suhny Abbara, MD, FACR, and Emily Eads, MD — addressed national trends in inappropriate imaging.

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surgical and nonsurgical management, as well as appropriate imaging practices at the conference. For this topic, presentations covered “Back Pain: When Clinical Management is Enough,” presented by Carlos A. Bagley, MD, complex spine surgery specialist, and “Appropriate Imaging of Acute Back Pain & Non-Acute HA,” presented by neuroradiologist William A. Moore, MD.

Each presentation lasted 15 minutes and was nestled into a larger section of similarly related topics, such as “Addressing National Trends in Overutilized Imaging,” and each section ended with a panel discussion about that topic. During the panel discussions, audience members could ask questions and engage with presenters. This year, presenters also fielded questions following the panel discussions in onsite consultation rooms, and the conference offered consultation phone lines for providers to call if they had additional questions after the event concluded.

The conference organizers sought to emphasize best practices for radiology without overwhelming non-radiologists. “We’re talking about radiology to mostly non-radiologists. You don’t want to go too far in depth,” Brewington says. “You want to stay engaged with your audience.”

Funding and Marketing

The brevity of each presentation was purposeful, Brewington emphasizes. “One of the things that many providers suffer from today is having very busy schedules. At the same time, we all need to stay current with the latest developments in medicine, so offering CME encourages participation from busy professionals,” Brewington says.

Brewington goes on to stress the importance of efficiently educating the providers within a health system on best practices without taking too much time away from their schedules. “This conference is one



Interim executive vice president for healthy system affairs at UT Southwestern and chief medical officer for Southwestern Health Resources Physician network Mack C. Mitchell, MD, saw the conference as an opportunity to reduce inappropriate imaging and humanize radiology to the non-radiology world.

way to do that, so we had complete buy-in by the ACO administration, the department of radiology, and by our providers” adds Brewington.

Brewington also insists that emphasizing cost-savings wasn’t a key focus for the event. “We wanted to make this about taking care of patients in the right manner,” she says. “I may be an idealist, but I think most providers went into health care because they want to help people. With that in mind, the [marketing campaign](#) had quality care and time management as its goal, and we geared the marketing campaign around that, not cost-savings.”

While emphasizing departmental cost-savings was not a focal point, the team wanted to keep costs down for participants. The ACO provided many of the resources to fund the conference, and the planning committee also solicited donations from vendors, some of whom had community-outreach incentives and provided grant funding for the events.

The group promoted the event using a comprehensive marketing campaign, which involved UT Southwestern’s marketing team and the radiology department’s own marketing group. The conference committee created an email list of local providers, which included physicians, physician assistants, nurse practitioners, and nurses. They also provided flyers ([see example](#)) to ACO members.

Attendee Feedback

Both events were met with overwhelming success. Attendee feedback during and following the conference was positive and encouraging, explains Mack C. Mitchell, MD, interim executive vice president



Ivan Pedrosa, MD, and Cecelia C. Brewington, MD, codirected “The Right Scan from Head to Toe,” an appropriate utilization and image ordering conference.

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Charles L. Powell, MD, family medicine practitioner and conference attendee, recommends that colleagues attend future conferences to better understand appropriate image ordering procedures and guidelines.

for healthy system affairs at UT Southwestern and chief medical officer for Southwestern Health Resources Physician network. “

Attendees were uniformly impressed, both with the quality of the presentations and their practical nature,” he says. “This was designed to be news you can use, not just the theoretical advantage of A versus B. It was a little more algorithmic in its nature.”

Brewington emphasizes that the audience remained enthusiastic and attentive throughout the day. “It’s one thing to have an engaged audience, which is what we had. But, it wasn’t only those people who were attending the conference to receive CME credit from the ACO; the entire audience was interested and engaged,” she says. “The attendees said over and over again that they have been wanting something like this conference.”

According to attendee feedback cards, attendees called the program “amazing,” “applicable,” “well-organized,” and “very informative,” and many requested that similar programs be organized for the future. The attendance to the 2017 event nearly doubled from the 2015 event, in part due to favorable recommendations from the original attendees.

Charles L. Powell, MD, family medicine practitioner and conference attendee, praised the conference. “With the cost of medicine rising, appropriate studies need to be done at appropriate times. This conference helped emphasize the importance of these cost-saving initiatives and provided practical ways to achieve it,” he says. “It also let us in on a look at the full array of services UT Southwestern radiology offers.”

Mitchell also adds that the conference has helped humanize the radiologist to the non-radiology world. “I think it allowed non-radiology physicians to really understand that the radiologist is not just someone who is interpreting images, but rather someone whose area of expertise is in helping to diagnose problems based on the results of imaging. It’s not just answering the question, ‘What does the picture show?’; it’s what is the best way to attack the problem presented in the image.”

Attendees overwhelmingly affirmed that attending the conference would change how they practiced. In fact, 97 percent of surveyed attendees said that they could apply the knowledge they gained from the conference to their individual practices, and the data analyzed after the 2015 conference suggests that this is occurring. In just two years, 2015 conference attendees in the audited ACO sample size have aligned with the national utilization efficacy benchmark. The data for the 2017 conference will be analyzed once enough time has passed to demonstrate post-event improvement trends.

Plans for the Future

Feedback also suggests that practicing ordering physicians are not the only individuals who could benefit from this type of CME event. Conference attendees also commented that conferences such as these could benefit students and residents in other departments. Looking forward, the group hopes to target post-acute care in a similarly organized conference. Sessions from the 2017 conference were also recorded and will soon be available to all interested providers online. Additionally, the group plans to offer an online course nationwide to expand the initiative to those beyond Texas.

“I think the time has come that if we are really serious about population health and making sure we are doing the most updated appropriate management and imaging in other arenas, this could be the platform to start a bigger effort,” Brewington says. “Part of our mission as academic radiologists is to be able to translate what we discover in the research arena into everyday care models. It is a major objective of academic centers across the nation.”

Brewington and Mitchell encourage those interested in beginning CME conferences or other events to take innovative approaches if traditional models aren’t working. “Realize that the needs of your institution may be different than the needs of others,” Mitchell suggests. “We all need to start acknowledging our strengths and identifying areas that can be improved.”

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"It's also about putting the patient first and focusing on care," Brewington adds. "One of the attendees of our most recent conference said he could tell that radiology really cared, because this was not a self-serving conference; it was about doing the right thing for the patient. I don't tend to be an emotional person, but as a professor of radiology, it made me happy to hear that kind of response. As a physician, there's nothing more you can ask."

Next Steps

- Organize a committee to discuss inappropriate or over-utilized medical diagnostic tests, therapies, or treatment plan needs or challenges your community faces. [Choosing Wisely](#) is a great place to start, with evidence-based lists of frequently ordered tests that may be inappropriate.
- Get other fields on board. Invite those in other disciplines and specialties to join the committee. Use the expertise and experience of others to benefit the whole.

- Plan a CME event in your area that facilitates radiology and non-radiology communication and interaction. Focus the event on areas that need improvement in your community — both for patients and health care providers.

Join the Discussion

Want to join the discussion about how radiologists can lead educational events to teach non-radiologists about appropriate imaging utilization? Let us know your thoughts on Twitter at [#imaging3](#).

Have a case study idea you'd like to share with the radiology community? Please submit your idea to <http://bit.ly/CaseStudyForm>.



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