Patient experience metrics have increasingly become the focus of value-based incentive programs by both the federal government and private payers. Radiology has prospered in the fee-for-service era; however, volume will not be enough anymore to be successful as there is an industry shift to value in the era of Imaging 3.0®, the Medicare Access and CHIP (Children’s Health Insurance Program) Reauthorization Act (MACRA), Merit-Based Incentive Payment Systems (MIPS), and advanced Alternative Payment Models (APMs).1

Policy Background
The Imaging 3.0® initiative is a call to action for radiologists, policy makers, payers, referring physicians, and patients to provide optimal imaging care from the moment a clinician considers ordering an imaging study or treatment until the referring physician receives and understands an actionable report with evidence-based recommendations. The goal is to deliver all the imaging care that is necessary and beneficial and none that is not. The American College of Radiology (ACR) intends to offer a toolbox to include such things as appropriateness criteria and clinical decision support guidance, facility accreditation, board certification and maintenance of certification, Image Gently and Image Wisely programs, patient consultations, image exchanges, the ACR Dose Index Registry, and centers of excellence.2

MACRA replaces the current Medicare reimbursement schedule with a new pay-for-performance program that is focused on quality, value, and accountability. MACRA combines parts of the Physician Quality Reporting System (PQRS), Value-Based Payment Modifier (VBM), and the Medicare Electronic Health Record (EHR) incentive program into one single program called the Merit-Based Incentive Payment System (MIPS). While it is most closely associated with physicians, the truth is hospitals are directly on the hook when it comes to MACRA. Hospitals employed more than 249,000 physicians in 2014, and had individual or group contractual arrangements with at least 289,000 more. This represents 70% of the estimated 800,000 physicians who will be effected by MACRA. This means that hospitals will directly bear the cost of complying with MIPS and any gains/losses resulting from performance adjustments. Additionally, community physicians will look to hospitals to create advanced APMs that can exempt participating physicians from MIPS as well as qualify them for...
the 5% annual bonus payment for APM participation. Hospitals and health systems should look at MACRA as creating an opportunity rather than a burden. Those that have the resources, tools, and support in place to help physicians score higher under MIPS will have a distinct advantage over their competitors when it comes to recruiting the most talented physicians.

Effective October 2012, the Centers for Medicare and Medicaid Services (CMS) began moving primarily fee-for-service healthcare reimbursement to a system of pay-for-performance, known as a Hospital Value-Based Purchasing Program. The program is funded by withholding a percentage of participating hospitals’ Medicare inpatient payments. The program started with a 1% withhold, which in fiscal year (FY) 2013 was an estimated $1 billion, and is increasing to 2% in FY 2017.

Participating hospitals have opportunities to recover their withholdings and to compete for additional incentive payments from CMS based on their performance ranking. 70% of a hospital’s performance score is comprised of clinical quality indicators, such as readmission rate, and the remaining 30% reflects patient satisfaction metrics, such as provider communication, pain management, and overall impression. For hospitals whose total and operating margins averaged only 7% and 5.5% in 2011, combined with the significant patient satisfaction component within the performance metric, reimbursement cuts of 1-2% can have a profound impact and emphasizes the critical need for all areas of a healthcare organization to optimize patients’ experience.5

The Protecting Access to Medicare Act of 2014 (H.R. 4302) includes a provision requiring the use of appropriate use criteria and clinical decision support (CDS) software for reimbursement of Medicare beneficiaries for advanced diagnostic imaging performed in the ambulatory setting. This mandate promotes scientifically valid, evidence-based care and has been associated with substantial decreases in the use of high cost imaging. It is anticipated that widespread adoption of CDS will reduce healthcare costs, improve quality, and reduce unnecessary radiation dose to patients. It also provides an opportunity to replace preauthorization programs that are not evidence-based and effectively shift costs from healthcare payers to hospitals and providers.4 Given all of the challenges the industry is facing, a clear financial imperative exists to improve the patient experience.

**Patient Experience**

The patient perception of service delivery is derived from the chain of numerous individual real time encounters that occur throughout a visit. These so-called “moments of truth” define the overall experience and form a lasting impression of the organization. Delivering excellent service can be challenging in practice given its intangible nature as well as the heterogeneity and unpredictability of the large number of patients, frontline staff, and environmental circumstances that define the patient experience. In radiology, a patient typically interacts with numerous individuals, such as schedulers, receptionists, technologists, nurses, and radiologists. While it’s true that each of these interactions is an opportunity to enhance the patient’s experience and prove that the organization can deliver on its promise of excellent service, any single negative encounter has the potential to undermine the combined impact of otherwise positive encounters, leaving an overall negative impression. It is these real time human interactions that are the most meaningful in a patient’s mind, therefore it is important that radiology team members recognize and optimize all potential encounters to enrich patients’ perceptions of service quality.5

While it may seem like providing excellent customer service is common sense, it can be difficult to consistently achieve. Unlike a physical product for which production can be centralized and automated, services are inherently intangible and created in the moment through provider-patient interaction. These moments involve a variety of patients in unique scenarios as well as a large number of staff with diverse backgrounds, training, personalities, and motivation, as well as their own personal issues that influence their work. This results in a large amount of unpredictability and complexity in trying to standardize service quality. Compounding this problem is the fact that patients maintain extremely high expectations for healthcare services, as well as uncertain budgets and limited resources that many organizations have available to dedicate to service quality.

In most industries in the United States, consumers drive the business model and their satisfaction with the delivered product or service is of utmost importance. However, in healthcare, the same business model has not always been in effect. The confusing array of facilities, treatment options, and the number and complexity of disorders experienced by patients have created an inequality of knowledge, placing physicians in an advisory and fiduciary role in which they direct their patients in choosing among options for care.

While the Internet has given patients access to more information which has helped remove some of the obstacles to acquiring knowledge that existed in the past, the quality of the information is inconsistent. In comparison, for many other industries, such as manufacturing and service, independent nonprofit organizations, such as Consumer Reports, assist consumers with purchase decisions. These purchase decisions are made for products such as cars and laptop computers, based on well-defined metrics...
such as reliability, and well-accepted and established, measurable performance metrics.

Consumers of healthcare want similar resources when selecting a healthcare provider or service, however key information, such as health-related risk-adjusted outcomes, is not as readily available for the healthcare purchaser as it is for consumers in service and manufacturing industries. While some organizations have made forays into this area, many healthcare providers state that current efforts toward public reporting of health-related metrics seem arbitrary rather than deliberative, and do not take into consideration the nuances or variability inherent in individual patient encounters. Even when the information is available, patients argue that the data are not provided in a comprehensible fashion that aids in decision making.6

Patient- and Family-Centered Care

Due to health reform efforts, a shift to a patient-centric environment has occurred because patient experience correlates with increased revenue. Patient- and family-centered care (PFCC) is care organized around the patient, a model in which healthcare providers partner with patients and families to identify and satisfy patients’ needs and preferences. In this model, providers respect patients’ values and preferences, address their emotional and social needs, and involve them and their families in decision making. Patients are encouraged to ask questions and obtain the necessary information to help them make informed decisions about their healthcare, promoting an open and honest doctor-patient relationship in which patients are primarily responsible for their own health. The stress of illness is minimized by adequately controlling pain and providing a physical environment that promotes healing and well-being. These are the elements that matter most to patients and have the greatest impact on how quality of care is perceived by consumers of healthcare services.4

Many terms have been used to describe PFCC. Some describe it as patient-centered care, while others call it co-design or co-production with patients and providers. One distinction between patient-centric care and PFCC is the acknowledgement of the role of the family or care partner in the patient’s care. Family is identified as close blood relatives, such as siblings or children or relations by marriage. Same-sex care partners are also considered family as supported by the Patient Protection and Affordable Care Act of 2010, which prohibits sex discrimination in any hospital or health program receiving federal funds. A patient’s social network of friends can also be considered family. It is critical to recognize that, in many cases, the care team includes the patient’s family.6

In a traditional biomedical model, disease has a biological explanation as the cause for the disease and treatment is directed at the underlying cause. In contrast to this model, George Engel described a biopsychosocial model that recognizes more layers, from the subatomic to the culture and society of the patient. Engel believed that to understand and respond adequately to patients’ suffering, and to give them a sense of being understood, clinicians must attend simultaneously to the biological, psychological, and social dimensions of illness. He offered a holistic alternative to the prevailing biomedical model that had dominated industrialized societies since the mid-20th century. He did not deny that the bulk of biomedical research had fostered important advances in medicine, but he criticized its excessively narrow focus for leading clinicians to regard patients as objects and for ignoring the possibility that the subjective experience of the patient was amenable to scientific study. Engel championed his ideas as a fundamental ideology that tried to reverse the dehumanization of medicine and disempowerment of patients. His model struck a resonant chord with those sectors of the medical profession that wished to bring more empathy and compassion into medical practice.7

In 1986, Harvey Picker, former chief executive officer of Picker X-Ray, formed the Picker Institute, which was an independent nonprofit focused on advancing patient-centered care. Picker said that “understanding and respecting patients’ values, preferences and expressed needs is the foundation of patient-centered care” and he is credited with coining the term “patient-centered care.” The Picker Institute strongly emphasized the need for standard measurement instruments and methods of data collection for PFCC as the basis for improvement. In addition to focus groups it used surveys to assess the patient experience. Its early development with the Commonwealth Fund was the forerunner of the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) surveys now used by CMS in its Value Based Purchasing program.

In the 2000s, more foundational research, publications, and concepts emerged. In Crossing the Quality Chasm, the Institute of Medicine defined patient-centric care as “providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.” The Institute of Medicine also included patient-centered care as one of the six domains of healthcare quality. In 2004, the Commonwealth Fund released “Mirror, Mirror on the Wall” which was an analysis that compared healthcare in the United States to four other industrialized nations: Australia, Canada, New Zealand, and the United Kingdom. US healthcare ranked second to last on the measures of patient-centered care.3

In order to deliver patient-centered care it is important to be sure employees understand their roles. One of the biggest threats to achieving patient-centered care is each employee believing it is up to someone else. In order to be successful everyone must take full responsibility and understand what they can do to improve the patient experience. It is also imperative that both department-wide and hospital-wide goals specific to
patient-centered care be set. Objectives motivate employees, both individually and as a team. The best way to tie everything together is to set goals around patient satisfaction survey responses. What score do you need to achieve as a unit? As an organization? Set the bar high and people will rise to the occasion. Empower staff to create a shared governance council that can be tasked with understanding and improving PFCC and patient satisfaction metrics. This can be an excellent vehicle to allow different modalities/areas to share best practices and opportunities for improvement.

Another strategy that can help engage the staff in making patient-centered care more of a focus is implementing a Commit to Sit initiative in the imaging department. Commit to Sit encourages radiology professionals to communicate with patients in a way that demonstrates compassion, respect, empathy, and competence in order to foster a trusting relationship. These are key components to patient-centered care and it helps to remind staff to take the time and truly connect with patients and their families.8

In addition to setting goals, rewards are a powerful motivator. When an employee sees others receiving recognition, they feel compelled to work harder and achieve their own recognition. Multiple studies have rated employee recognition as “extremely valuable” in driving individual performance. Make examples of employees who consistently meet goals, earn accolades from patients and their families, offer genuine emotional support, and truly provide patient-centered care. During annual evaluations, tie employees’ performance to their score, which has a direct impact on annual merit increases.

The best way to ensure that employees follow new procedures is to make them easy to digest. Clarity is key. Write up processes and include specific examples on how to accomplish the pillars of PFCC, such as involving approved family in care, making physical comfort a top priority, and educating the patient. Create badge cards and screen savers with PFCC tips and initiatives to keep employees engaged and focused.

Dimensions of Patient-Centered Radiology

Providing a conceptual framework that aids us in understanding the patient’s experience of illness and healthcare is a prerequisite to redesigning radiology-specific processes around patients’ needs and preferences. The conceptual model described below is adapted from the model of patient-centered care described by Gerteis et al, which is based on decades of interviews and focus groups involving patients, family members, physicians, and hospital staff.4

Communication, Information, and Education

Technologists play a central role in the radiology department, and the bulk of their responsibilities depend on effective communication with patients: taking histories, verifying patients’ identity and the procedure(s) to be performed, screening for safety, providing instructions and ensuring that patients understand them, answering questions promptly and accurately, explaining post-examination care, and coordinating patient care with efficient and effective use of resources. Because technologists play a central role, strategies that improve their communication skills are paramount for ensuring patient safety and a positive experience. The acronym AIDET (acknowledge, introduce, duration, explanation, thank you) refers to a set of skills that can be used to improve communication between patients and healthcare providers in a radiology department. Attention to patients’ emotional concerns and explanations of procedures were identified as aspects of care that could be improved during diagnostic imaging procedures such as double-contrast barium enema examinations, mammography, and vaginal ultrasounds.4

Timely access to radiology reports through a patient portal is important to the majority of patients and increased access is likely to improve patient satisfaction. The final imaging report is the main product of the radiologist and is often the sole representation of our work. While the content of the report is primarily directed to the ordering physician, final reports are being made available to patients with increasing frequency and their content should be clear and accurate. In many radiology settings, direct physician-patient communication is rare, further emphasizing the importance of report accuracy and clarity. Providing patients with the opportunity to communicate directly with the radiologist about the contents of their report, however, has been met with positive reviews. In one survey of over 4,000 radiology patients, the most important of 20 attributes driving patient experience was “having physicians listen to me and acknowledge my concerns,” highlighting the importance of verbal communication. Emphasizing communication skills and encouraging increased teamwork between the radiologist and technologists who spend more face-to-face time with the patients will likely also yield significant results.9

In an effort to improve health literacy regarding radiologic examination and treatment, the Radiological Society of North America (RSNA) and the ACR collaborated in the development of a public information website, RadiologyInfo (www.radiologyinfo.org). This website provides information about radiologic studies in a standard format that describes various procedures, indicates common uses, explains how to prepare for procedures, and provides pictures of the equipment used during procedures. The site currently contains information on nearly 200 radiologic procedures and can be viewed in English or Spanish. Information can be downloaded directly from the site by patients and their families, radiology departments/practices, or referring physicians. Consumers are increasingly accessing Web-based resources to obtain information and knowledge about radiologic procedures, and it’s important for radiologists and radiology departments/
practices to play an active role in developing and maintaining these types of resources.4

Physical Comfort
While pain intensity scores do not seem to correlate well with patient satisfaction, the perception of adequate pain management does have a known positive correlation with HCAHPS scores, increasing the odds of satisfaction by nearly 10 in cases where the patients felt the caregivers did everything they could to control their pain. Aggressive pain management is crucial to patient-centered radiology. However, despite advances in the use of narcotics and other analgesics, pain control continues to be one of the most feared and debilitating aspects of illness and medical treatment. Studies assessing pain in various clinical settings indicate that a significant number of patients (20-75%) continue to experience moderate to severe pain despite treatment with analgesics. Patients experience pain during virtually all types of radiologic procedures, from interventional radiology to mammography. Therefore, acknowledging discomfort and reassuring the patient of efforts to minimize pain will likely improve the perception of adequate pain management and improve patient experience.9

During focus groups conducted by the Picker Institute, cleanliness was the aspect of the environment that patients mentioned most. The physical environment can have a significant impact on a patient’s experience, and a supportive environment may serve to help prevent illness and alleviate stress and depression. Humanizing the hospital’s physical environment can be accomplished through the use of windows, skylights, indoor plants, fountains with running water, and landscaping. Ambient noise should be reduced and waiting rooms should be designed to allow patients and their visitors to converse, watch television, and read or nap, with easy access to telephones, reading material, and comfortable chairs and sofas. Patient-centered design features for diagnostic and treatment areas include placing nature scenes or relaxing images in the patient’s line of sight to provide distraction; using sheets and pillows to minimize patient contact with cold metal equipment; monitoring room temperature so that patients are comfortable in gowns; and ensuring privacy before, during, and after examinations and procedures.4

Emotional Support and Alleviation of Fear and Anxiety
Emotional support involves understanding patient expectations and concerns and responding appropriately. Patients should understand the purpose of the information that will be gleaned from an examination. A patient’s experience of illness includes the emotional and psychological consequences of being ill, and healthcare providers must sufficiently address these subjective aspects of illness in order to provide the most effective care. Addressing these needs can influence patient satisfaction with care, compliance with treatment regimens, recovery of function, need for pain medications, and length of hospital stay. Research has shown that interventional radiology patients significantly overestimate their anticipated pain and that interventionalists should spend more time assessing patients’ fear of pain and attempting to reduce that fear rather than focusing on the technical aspects of the procedures. When discussing imaging procedures with patients, it is important to provide specific information, along with realistic expectations. Research has shown that providing patients information about the sensory aspects of a procedure helps reduce anxiety, whereas inaccurate expectations about physical sensations can be a significant source of distress.4

Respect for Values, Preferences, and Expressed Needs
Showing respect for patients’ values, preferences, and expressed needs includes understanding and respecting patients’ cultural beliefs and practices, involving patients in their own care, and understanding and respecting therapeutic goals. Using a shared decision-making model can help to accomplish these objectives. This model should improve patient knowledge of options as well as perceptions of risks and benefits and lead to clinical decisions that are consistent with patient values such as quality of life.4

Time-related complaints are among the most common levied against radiology. Decreased wait times for imaging have a measurable, positive impact on patient satisfaction surveys. These time-related delays may begin during the process of scheduling and become further compounded if problems arise during the patient registration process. Integration of best practices to clarify patient procedures or insurance authorization before the patient’s arrival may considerably reduce radiology registration delays. In fact, even the perception of shorter wait time rather than an actual reduction in wait time is associated with higher patient satisfaction. Simple, inexpensive interventions, such as a patient-centric waiting room with free Wi-Fi, coffee or drinks, and regular progress updates, can reduce the perceived wait time by up to 25 minutes.9

Coordination and Integration of Care
Patients’ concerns with coordination of clinical care relate to not knowing who is in charge of their care, the sense that members of the clinical team are not communicating important pieces of information to one another, and inconsistency in the message they are receiving from different members of the healthcare team. Healthcare providers in radiology must be vigilant in obtaining the clinical information necessary to provide accurate, high-quality interpretations of imaging examinations. This can be accomplished by interviewing patients, reviewing their electronic medical records or charts, and calling the referring physician’s office. Radiologists should obtain the necessary information to accurately interpret examinations and communicate important results to
referring physicians. Staff should also have the skills and knowledge necessary to answer questions and provide help for the patient when needed.4

Involvement of Family and Friends
Families serve several functions in the setting of illness and given their important roles, family involvement is an important component of patient- and family-centered radiology and should be encouraged and supported. Patients undergoing imaging examinations are often nervous and fearful and this anxiety may alter their ability to absorb and understand information. Including family members during discussions of risks and benefits of imaging procedures not only helps facilitate shared decision making and is an opportunity for the family members to provide information about the patient and ask questions, it is likely to improve the overall experience. Concerns about violating Health Insurance Portability and Accountability Act (HIPAA) privacy and security rules often prevent the sharing of information with family members; however, these rules do not prohibit healthcare providers from sharing information or partnering with designated family members.4

Conclusion
The integrated role of radiology throughout virtually all aspects of healthcare delivery makes it a key player in influencing patient satisfaction. Radiology is heavily utilized in the emergency department; on the surgical, medical, and pediatric floors; and in outpatient centers. Patients in each of these settings will have diverse expectations that will shape the perception of care. Implementing a process to continually assess patient satisfaction is a core component of practicing patient- and family-centered radiology. While there are numerous internal and external customers of imaging services, patients are arguably the most important customer. The five key factors that determine customer satisfaction for a given service are reliability (the ability to provide the service that was promised and to do so dependably and accurately), responsiveness (the willingness and ability to help customers promptly), assurance (the sense of confidence, competence, and courtesy that providers offer), empathy (the degree of caring and attention to individual customers), and tangibles (the physical appearance of facilities and the quality of the equipment). There is a growing trend toward more detailed public reporting of patient satisfaction data with benchmarking and links to financial reimbursements. Radiology department staff and leadership should take an active role in adopting and promoting use of standardized survey instruments for assessing patient satisfaction in both inpatient and outpatient settings. While there are legitimate concerns about the methodology used for survey design and the validity of the collected data, department leadership can use the information to improve the patient centeredness of their practices by responding to patient complaints, obtaining benchmark and comparative data, and determining baseline performance to evaluate the impact of service and quality initiatives.3

References

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Patient- and Family-Centered Radiology

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QUESTIONS

Instructions: Choose the answer that is most correct. Note: Per a recent ARRT policy change, the number of post-test questions has been reduced from 20 to 8.

1. Which of the following is NOT part of the ACR Imaging 3.0® toolbox?
   a. Facility accreditation
   b. Image exchanges
   c. Unannounced site visits
   d. Clinical decision support

2. In FY 2017 what percentage of participating hospitals’ Medicare inpatient payments can be withheld by CMS?
   a. 1%
   b. 2%
   c. 3%
   d. None of the above

3. Which of the following is NOT an advantage of widespread adoption of clinical decision support?
   a. Improved quality
   b. Reduction in unnecessary radiation dose to patients
   c. Effectively shifts cost from hospitals and providers to healthcare payers
   d. Replacing preauthorization programs that are not evidence-based

4. Care organized around the patient, a model in which healthcare providers partner with patients and families to identify and satisfy patients’ needs and preferences is known as:
   a. Customer centric care
   b. Patient- and family-centered care
   c. Deliberative care
   d. None of the above

5. Which of the following terms have been used to describe PFCC?
   a. Co-design
   b. Co-operative management
   c. Patient-centered care
   d. A and C

6. Who described a biopsychosocial model, a general theory of illness and healing?
   a. Harvey Picker
   b. Aaron Johnson
   c. George Engel
   d. George Edwards

7. Healthcare providers should be prohibited from sharing patient information with family members because of HIPAA privacy and security rules.
   a. True
   b. False

8. What are the five key factors that determine customer satisfaction for a given service?
   a. Competence, compassion, core measures, quality, and tangibles
   b. Tangibles, free parking, empathy, communication, and online scheduling
   c. Reliability, responsiveness, assurance, competence, and tangibles
   d. Access, compassion, assurance, tangibles, and quality

The credit earned from the Quick Credit™ test accompanying this article may be applied to the AHRA certified radiology administrator (CRA) operations management (OM) domain.