

Case Study: Improving with Patients

Virginia Mason Medical Center engages patients in process improvement workshops to solve radiology and institution-wide challenges.

By Kerri Reeves

Key Takeaways:

- Virginia Mason Medical Center maintains a unique process improvement system for patients, families, and providers that focuses on quality care.
- The hospital's volunteer services office connects patient-family partners with innovative radiology leaders for structured engagement workshops.
- Patient, family, and team member experience is the cornerstone of the week-long workshops that foster dialogue between radiology staff and patients.

Over 15 years ago, Virginia Mason Medical Center (VMMC) in Seattle adopted the perspective that providing the perfect patient experience is a worthwhile pursuit. With this vision in mind, VMMC invites patients to help develop processes that increase efficiency and improve outcomes across the institution — including in radiology.

To that end, VMMC's physicians and department leaders regularly engage directly with patients in **rapid process improvement** workshops that leverage experience-based design (EBD), a methodology that relies on user insights to improve products and services. The approach helps VMMC's providers better understand the patient experience while giving patients a voice in enhancing care delivery.

The interactions are particularly important to the hospital's radiologists, who are committed to increasing their role in care coordination. "As patient-focused radiologists, we need to not only talk with patients about tests and results but also try to understand what they're going through," says C. Craig Blackmore, MD, MPH, radiologist and director of health care improvement sciences at VMMC. "We want to walk in patients' shoes through the whole care process, taking responsibility and ownership to ensure their experience is as ideal as it can be."

Using EBD in process improvement workshops, the radiologists have streamlined their workflow, executed redesigns and technology implementations, and reimagined clinical processes — with patient input driving the innovations and leading to more efficient care, decreased wait times, higher satisfaction, and lower costs.

Open to Engagement

VMMC's focus on improving the patient experience originated with an ambitious plan to transform care delivery in every department within the hospital. Administrators combined tenets of the Toyota Production System, a lean manufacturing process from Toyota Motor Corporation, with other process improvement philosophies to create the [Virginia](#)



C. Craig Blackmore, MD, MPH, radiologist and director of health care improvement sciences at VMMC, believes in fostering a learning healthcare system to achieve quality improvement.

Mason Production System (VMPS) for delivering safer, higher-quality patient care.

While patient engagement became VMMC's official focus in 2002, it has long been at the heart of the radiology department's mission. Radiology team members are encouraged to develop creative solutions to challenges that would otherwise become relegated as "routine problems" and addressed with inefficient "work-arounds," explains Peter R. Eby, MD, FACR, section head of breast imaging in the department of radiology. In doing so, the radiologists regularly initiate rapid process improvement workshops that bring key stakeholders and one or more patients together to resolve issues through a series of multiday EBD-based meetings.

To prepare for such a workshop, the project leader reviews clinical processes, maps out current workflows,

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Peter R. Eby, MD, director of breast imaging at VMMC, finds that involving patients in process improvement leads to new insights that improve the provision of care.

outlines roles and challenges, and gathers other background data. From there, the leader identifies relevant stakeholders for the discussion. These can include radiologists, technologists, schedulers, non-radiologist providers, IT personnel, and billing representatives. The workshop leader then works with either VMMC's volunteer services office or a provider to identify at least one patient-family partner (PFP) volunteer to participate in the workshop. The workshop team gathers additional patient feedback using EBD patient interviews, focus groups, and questionnaires that cover the processes of care as well as the overall patient experience.

During the workshop, VMMC stakeholders and patient volunteers follow a specific VMPS structure that involves data collection, root cause analysis, idea generation, [Plan-Do-Study-Act testing](#), and implementation planning. Using these tools, the participants dissect the problem, review potential solutions, and outline a possible resolution. They also establish performance measures to evaluate the success of the workshops' outcomes. The approach encourages free-range thinking, Eby says. "It allows us to challenge anything that's been done," he explains. "We ask ourselves, 'Do we do this for a logical reason or simply because we've always done it this way?'"

Stakeholder Meeting

The radiologists have used these EBD-based rapid

improvement workshops for a variety of projects within the department — from creating a new MRI suite to streamlining ultrasound-guided biopsy procedures. One specific initiative involved redesigning of a shared floor within the hospital that houses breast imaging, plastic surgery, and concierge medicine.

In that case, breast imaging and the other departments on the floor were experiencing various throughput and operational challenges due to space constraints and insufficient wayfinding. Patients would step out of the elevator at the 11th floor and have no idea where to go. Many patients ended up in the wrong waiting rooms and never heard their names called for their appointments, Eby says.

To address the issue, VMMC launched a workshop that included representatives from each of the departments on the floor. Workshop leaders then partnered with the hospital's volunteer services office to recruit former patients to participate in the discussion. In doing so, they filled out a [volunteer request form](#), which details what's desired of the volunteer, how many hours the volunteer will be needed, and whether the volunteer should have direct experience with a specific service line or disease.

Based on this information, the project team selected three PFPs, including Mark McLaughlin, a 66-year-old retiree, for the project. McLaughlin had previously undergone shoulder and spine surgeries at another hospital and received cardiovascular treatment and other care at VMMC. "When volunteer services approached me about the redesign workshop, my interest was definitely piqued since I enjoy remodeling projects at home," McLaughlin says. "I like volunteering for workshops that are outside the realm of my professional experience in finance and administration. I feel I can bring a fresh patient perspective to the table."

Once workshop leaders identified the PFPs, Eby reviewed detailed structural maps of the 11th floor and gave the patient volunteers tours of the three departments, seeking feedback about flow. He then presented this information in the workshop so the participants would understand the existing situation and the need for a solution: a redesign that welcomed patients and met everyone's logistical needs.

Collaborative Redesign

During the five-day workshop, the physicians, medical assistants, and other staff from the three departments discussed what they needed to continue providing quality care on the floor. These conversations were sometimes tense, Eby says. "When space and funds are limited, people can easily become territorial. Nobody

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wants to give up a patient exam room. But we are committed to making decisions that are in the best interests of the patients, not ourselves. That is where we find common ground."

To address the space constraints, the clinicians agreed to share exam rooms on a rotating schedule. "We had exam rooms that were often empty because not all of the clinicians are on the floor on the same days," Eby says. "We developed a schedule that allows one group to use the rooms on the days that another group isn't there. This collaborative arrangement has made it a lot easier to care for patients without costing us any extra money."

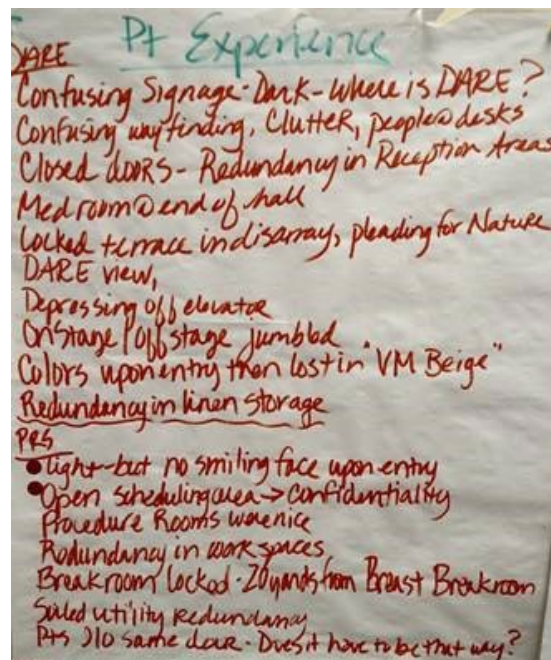
When it came to resolving the wayfinding and other patient experience aspects of the project, McLaughlin and the other volunteers shared insights from the patient perspective. In particular, the volunteers noted how vulnerable patients feel walking around communal spaces in hospital gowns. They explained that especially when patients have been newly diagnosed with cancer, for instance, the last thing they need is the additional anxiety that comes from not knowing exactly where to go for care.

With these suggestions in mind, the group discussed various solutions from knocking down walls to creating a complete open-concept floor plan redesign, but these dreams exceeded the approved \$100,000 project budget. Instead, workshop participants agreed to remodel a reception area and jointly staff it with a greeter to welcome and assist patients. They also agreed to allot more private space for patients in hospital gowns. "It's a solution we might not have come to if we hadn't sat down as a group and really listened to our patients," Eby says.

Connections through Candor

The candid conversations like these that occur during the workshops help forge stronger connections between patients and providers. The discussions give patients insight into how providers work and make decisions while giving providers greater appreciation for how their processes impact patients.

"We get to understand what patients are going through at specific points during the process of care, which is very different than just asking if they're satisfied," Blackmore says. "We get the emotional context, those 'touch points' that color their entire experience in an intense way and that may or may not align with what we, as healthcare providers, immediately recognize as important."



During the redesign workshop, radiologists and other team members wrote down some of the feedback they received from patients and focused on improving the patient experience.

In fact, patients are often able to raise concerns that providers might not otherwise address. "As a patient partner in several workshops, I am able to ask questions and make observations that hospital employees might not feel comfortable broaching," says McLaughlin. "I'm able to say things that others have probably left unsaid."

Working with providers in this way to improve care for themselves and others can be rewarding for patients. "The challenges we tackle can seem daunting at first," McLaughlin admits. "But by the last day, we're always moving the ball forward for improvement. I feel good about sharing my experience to help develop solutions that can benefit other patients."

Radiologists feel good about it, too. "When we sit down at a table with our patient volunteers, we're reminded of our role as care providers," Eby says. "We're reminded that everything we do — from the way we design our facilities to the way we deliver results — has the potential to significantly impact the patient experience, for better or worse."

Next Steps

- Determine which departmental processes could use attention and engage care partners who should be involved in process improvement discussions.

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- Engage with your volunteer services office or other providers to recruit patient volunteers for involvement in process improvement workshops.
- Use the feedback data collected during process improvement workshops to address challenges and improve patient care.

Share Your Story

Have a case study idea you'd like to share with the radiology community? To submit your idea please [click here](#).



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