Surgeon ratings websites aim to make a mark on patient care

Two new ratings websites use risk adjustment models that offer a more complete picture of quality care

Last year, when the nonprofit news organization ProPublica released its "Surgeon Scorecard," it was met with varying degrees of applause and criticism.

Some criticized the scorecard for using unreliable data points to rate surgeons' complication rates and for failing to account for the many factors that can alter a patient's outcome. Others praised the new tool as a "step in the right direction" while acknowledging some of its flaws. (For more, see the October 2015 issue of **Patient Safety Monitor Journal.**)

Thanks to the attention surrounding ProPublica's model, two other surgeon rating systems were released with much less fanfare, but both are aiming to make a mark on the healthcare industry by utilizing risk adjusted formulas that blend complication rates with the inherent risks of certain surgeries or patients.

The consumer advocacy group Consumers' Checkbook launched *SurgeonRatings.org* (*www.checkbook.org/surgeonratings*) around the same time as ProPublica's "Surgeon Scorecard," but escaped the same barrage of criticism. **Robert Krughoff,** president of Consumers' Checkbook in Washington, D.C., acknowledged that ProPublica has a much wider audience and therefore received much more attention. But Krughoff noted that Consumers' Checkbook has been advocating for Medicare to publicly release quality data for more than 10 years, and in creating the ratings site, it turned to risk adjustment algorithms that have been studied for more than two decades.

The American College of Surgeons (ACS) released a statement shortly after the release of both rating systems criticizing "two public websites" without naming them specifically. ACS noted that rating a surgeon's skill without considering risk factors or the fact that surgery is a team experience, "leads to an incomplete analysis."

But Krughoff expresses confidence in the ratings system.

"We are drawing on methods we've used to evaluate hospitals in terms of death rates and adverse outcome rates and we've been doing that for about 20 years," he says. "We have a lot of experience doing this, and we feel quite good about our methods."

Several months later, in October 2015, a Washington-based startup called MPIRICA launched its own hospital and surgeon rating system, MPIRICA Quality Score. The company had launched a similar rating system for hospitals in January 2015.

Using Medicare data and a similar risk adjustment model to SurgeonRatings.org, MPIRICA developed a quality rating similar to a FICO credit score for more than 65,000 surgeons, allowing patients and employers that provided self-funded health plans to compare hospitals and surgeons on a level playing field. In April, MPIRICA announced it would also cover more than 1,000 outpatient procedures for nearly 40,000 surgeons.

"We were grateful in the end for the exposure that the jig is up," says **Chris Diede**, chief marketing officer for MPIRICA, referring to the attention ProPublica's rating system received prior to MPIRICA's launch. "They ended up getting the brunt of any controversy."

What separates SurgeonRatings.org and MPIRICA is the use a risk adjustment model that's been utilized by experts behind closed doors for nearly 30 years. Although ProPublica incorporated adjustments identified by a panel of surgeons, representatives from MPIRICA and SurgeonRatings.org argue their risk adjusted model is more accurate and complete, and could serve to improve the quality of surgical care.

Risk adjusted ratings

MPIRICA and SurgeonRatings.org present ratings data very differently. While MPIRICA offers a three-digit score for 65 different procedures, SurgeonRatings.org rates surgeons on their performance in 14 different surgeries, using a three-to-five star scale. For now,

SurgeonRatings.org excludes surgeons that rank lower than three stars.

"We thought that for the first time around—since this data had not been out there before—that we would take the most positive approach and highlight the doctors that are best, which we also know as a consumer organization is what most consumers want," Krughoff says.

But each rating system's risk adjustment method is derived from analysis developed by **Michael Pine, MD, MBA,** president of MPA Healthcare Solutions, who has been working with hospitals, clinicians, and insurance companies to refine healthcare quality measurement and risk adjustment methodology since 1988. Although Pine has published extensively on risk adjusted metrics, his work regarding quality measurement has been limited to private contracts with healthcare organizations until he was able to apply the same approach to publicly released Medicare data.

Shakil Haroon, founder of MPIRICA, began working with Pine in 2014, shortly after he decided to build a startup aimed at comparing hospital quality. Pine offered up his methodology to MPIRICA as a way to build a ratings system that could compare hospitals and surgeons while also weighing the specific risks of the patient and the surgery.

"We've had a chance to look at the clinical record which is often times what actually happens, and we're able to say our stuff matches up exceedingly well," Haroon says.

According to **Donald Fry, MD**, executive vice president of clinical outcomes at MPA Healthcare Solutions in Chicago, this risk adjustment model focuses on four specific outcomes:

- Inpatient deaths
- Prolonged length of stay
- Patients that die within 90 days of discharge
- Patients that are readmitted within 90 days of discharge

The risk model examines the risk profile of each patient population and emerges with a predicted value, which factors in issues such as age, gender, and secondary diagnosis. That predicted value is compared to the observed value to determine whether a surgeon has performed better or worse than predicted.

Perhaps most importantly, the model also weighs the results so more severe outcomes (mortality) are more impactful than other complications.

Essentially, this calculation reduces some of the issues that providers have complained about when it comes to quality data, namely that surgeons and hospital systems are punished for taking care of high-risk patients.

"You would expect those patients with those [chronic] conditions will have higher complication rates, so surgeons that are taking care of those kinds of patients would not be adversely affected because they would have predicted values of adverse outcomes that are much higher than institutions where those don't exist," Fry says.

Fry adds that as a former surgeon, he is "very sensitive" to the fact that ratings systems and risk adjustment models need to be "as accurate as we can make them."

For consumers, it allows for an apples-to-apples comparison of providers.

"It's risk adjusted enough where you really can look at the scores—whether it's in the same city or across the country—you can look at one procedure and you can trust what this outcome score is," Diede says.

Impacting quality

At least one provider has warmed to the idea of surgeon ratings.

Proliance Surgeons, one of the largest surgical practices in the country with 200 board-certified physicians providing care in Washington state, agreed to partner with MPIRICA earlier this year. Proliance will hand over its quality data so MPIRICA can perform quality rankings on ambulatory procedures and inpatient procedures that are not included in Medicare's data.

"That's how impressed we are with them," says **Bill Fletcher**, a clinical outcomes analyst at Proliance Surgeons. "I'm actually willing to give them the data."

Fletcher notes that he was significantly less impressed with ProPublica's model, but felt MPIRICA had a much more rigorous model. Although it was an added bonus that most of the surgeons at Proliance scored well, the group ultimately decided to partner with MPIRICA because they felt the scores came with an added level of veracity.

He also balked at the idea that surgeons don't want quality data exposed.

"[Surgeons] are very proud of the work they do, but like any of us, they want to make sure what is public is correct," Fletcher says. "The data needs to be right."

For its part, MPIRICA envisions having a broader impact on the way consumers choose quality providers, not

just through its ratings, but by partnering with employers that offer self-funded health insurance.

Steering employees toward surgeons and hospitals with higher quality ratings can save thousands of dollars in healthcare costs, Diede says. Employers can also build in gain-sharing programs to incentivize employees to choose high-quality providers and build in cost data to determine which surgeons and hospital systems are providing higher quality care for a lower cost.

"Quality in and of itself is a less expensive proposition," he says. "If you go for a knee replacement to a high provider versus a low quality provider, you're going to have fewer complications, fewer readmissions, and fewer issues that come up, which equates to fewer dollars out of pocket."

A work in progress

Just like any new product, these surgeon rating systems are still finding their way in a consumer marketplace that is still adjusting to the prospect of rating healthcare providers. Although the risk adjustment model has offered a solid foundation, there are still practical challenges with both websites.

For instance, SurgeonRatings.org offers information on just 14 procedures, and does not include scores for lower-than average surgeons (although Krughoff indicated the site will include star ratings for all surgeons during future updates, but declined to offer a time frame).

MPIRICA is still navigating its business model. Although Haroon repeatedly emphasized the company was built on the philosophy that "quality information is free," currently only hospital scores are accessible to the public. Surgeon quality scores (both inpatient and outpatient) are free to employers that sign up with MPIRICA, but not publicly accessible.

Furthermore, the models could be enhanced by additional quality data currently held by hospitals and health systems. Although the risk adjustment model offers more accurate quality measurement than the raw data released by Medicare, representatives from both MPIRICA and SurgeonRatings.org say a larger pool of quality data would give them the chance to further refine their ratings.

Haroon is pushing providers to enter into a collaborative relationship, insisting if they hand over their quality data to reputable organizations like MPIRICA, consumers would be equipped to make better choices about their healthcare.

"This process could be kicked off next week," he says. "By the end of the year we could have accuracy measures that inform the American consumer as to where to receive the best care for any one of hundreds of different procedures. It could happen."

Krughoff adds that although the risk adjustment model is nearly perfect, it could be further enhanced if healthcare systems provide data like lab values or patient outcomes beyond mortality. We'd like to know whether that person who had heart surgery or had a total knee replacement is able to function normally—they are back out on the basketball court," he says. "That's my measure of medical success."

Top patient safety concerns touch on IT, patient identification issues

For the first time, safety culture also makes an appearance on ECRI's annual top 10 list

This year's list of top patient safety concerns proves that health systems continue to battle health IT implementation issues, while also struggling with patient safety stalwarts like disinfection, medication errors, and even patient identification.

Health IT configurations and patient misidentification led the list of the ECRI Institute's top 10 patient safety concerns in 2016 (*www.ecri.org/PatientSafetyTop10*), while culture of safety concerns made its first appearance since the organization began releasing its rankings in 2014.

ECRI constructs its list from its own database of 1.2 million patient safety events reported by its member hospitals, root cause analysis and research requests, and safety alerts distributed throughout the year.