ROUNDTABLE

HEALTHCARE QUALITY: THE DYNAMIC SYSTEM

Providing quality healthcare for patients is not just one initiative, but a multilayered program encompassing everything from patient safety to information technology. The gauntlet was laid down in 1999 when the Institute of Medicine's *To Err is Human* report attributed 98,000 hospital deaths per year to preventable medical errors. Fixing medical errors—and the larger question of quality improvement in hospitals—has been a focus of attention ever since. But as with any system, when hospitals started to take a renewed look at unraveling their care processes, the solutions to improving quality only became more complicated. *HealthLeaders* convened a panel of experts to discuss the dynamics at play when a hospital decides to tackle a broad program of addressing quality in the way it delivers care to its patients.

Panelist Profiles

JIM MOLPUS, Editor of HealthLeaders Media, served as moderator

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PAUL KECKLEY, PH.D., Executive Director, Vanderbilt Center for Evidence-Based Medicine, Nashville, Tenn.

PAUL DAVIDSON, Partner, Waller Lansden Dortch & Davis, Nashville, Tenn.

JANE ENGLEBRIGHT, R.N., PH.D., Vice President of Quality, HCA Inc., Nashville, Tenn.

STEVE MAYFIELD, Director, American Hospital Association Quality Center, Chicago.

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Roundtable Highlights

State of Expectations

Jim Molpus (HealthLeaders Media): *The Institute of Medicine's* To Err is Human *report was released almost seven years ago, and yet the questions that it raised about safety and the overall quality of healthcare are still current. How far has the industry come since 1999?*

Jane Englebright (HCA Inc.): The IOM report changed our work on quality from being local—letting each hospital and its medical staff do what they think is best—to being a concerted effort in which we pull a lot of the lessons we have been learning in operational areas into the clinical space. We started with medication errors for several reasons. One because the IOM report said that in hospitals medication errors are the most common type of error—while not the the most severe or most deadly, they are the most common. Two, it's something that all of our hospitals and surgery centers do, so we could work on it together as a culture building activity. Third, we thought it was going to be easy. We planned this to be a two to five year initiative. We have been working on it for six years now and still don't consider it done.

Michael Deegan, M.D. (Texas Health Resources): When we talk about quality, we really like to have operational definitions. The three elements of our quality focus are approved by the board. Safety is our first domain, and we define that as freedom from preventable injury. The second domain is the provision of services in a manner consistent with contemporary evidence-based knowledge and technology. Then we have the service component as the third piece, of really meeting or exceeding the expectations and trying to customize that to the individual and his or her needs.

Paul Keckley (Vanderbilt Center for Evidence-Based Medicine): Conceptually we'd say that this quality discussion functions at three levels. Safety and error reduction is the foundation. Quality improvement is the next layer of activity. And the third layer of activity is evidence-based care, which is the toughest of these three.

Molpus: *The IOM report put blame on faulty systems and conditions that lead people to make mistakes. How far have hospitals come in addressing these faulty systems?*

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> —Paul Davidson

Englebright: I actually think we have made quite a bit of progress in changing the whole discussion of error. We started at a point where the idea of "no blame" was intended to be no blame for reporting so we could learn and uncover errors. Now we are far enough along in redoing the processes of safety and technology that we are starting to look at accountability in using safe practices and safe technology. That does come down to some individual decisions and tradeoffs that are made about going faster versus going safer.

Keckley: That, for us, is the challenge of accountability around team-based process rather than individual processes. We put everybody through this Air Force training program called Lifewings. So we have to act like we are in a cockpit and look at takeoffs and landings. The idea around that is that teams are responsible and accountable rather than individuals, and yet if your performance evaluation system is still individualized, and your incentive structure is still individualized even just around safety, it is hard to really match team-based outcomes versus individual accountability.

Steve Mayfield (American Hospital Association): We are making strides in system issues. One of the great obstacles that we have is that other industries that are working on systems can talk openly about errors and publish information about errors that is visible to the team working on whatever that process may be. Conversely, if a hospital is making progress on reducing falls and it has charts that show system variation from two years ago, and it puts that up on the wall, a litigious person may come in and say, "Two years ago, my client was here, and you should have done a better job. Here is a lawsuit for you." That is an impediment. We need structural alignment that allows hospitals to have open communication about what is happening and have all the data about the

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processes available individually, with the focus back on patient-centered care.

Molpus: *Paul, where does the intersection of quality and transparency and fear of litigation come from?*

Paul Davidson (Waller Lansden Dortch & Davis): The design of the civil tort system is to lay individual blame. Consequently, this makes physicians and hospitals reluctant to report errors. Thus, the transparency required to improve quality in our healthcare systems is more difficult to achieve. In every malpractice case, there is an expert—another doctor who will testify that the defendant doctor or hospital deviated from the standard of care. This system provides a disincentive for healthcare providers to report errors and to engage in self-critical analysis. That is the challenge: to provide proper incentives to report errors and engage in transparent and critical analysis.

Molpus: *Quality is about data. Can each of you tell me about the types of information you are gathering and how that is shared?*

Keckley: We have 300 metrics that are online and accessible to every employee at Vanderbilt. Once a quarter, we report across all the metrics in a full-day session with our managers to focus on areas where we are going to operationally modify a process to get a better outcome—again with the model being safety, quality improvement and evidence-based care. In most cases, the effort is not around who is right or who is wrong, or whether one unit appears to be better than the other. But we do make everything transparent at the patient care unit level, so there is a little bit of tension as some of the patient care units see themselves compared to their peers.

Mayfield: Do you shine the light on the high performers?

Keckley: The analytic model is we'll isolate the top 20 percent of the performers, and do a gap analysis for the bottom 20 percent across a variable and determine what we can identify as discriminate differences. Our mantra is "tools not rules." We get the tool out there and let people react to it. Our biggest difficulties are routinely in two areas. One is in confronting strongly held views of doctors about the standard of care that ought to be applied on a unit. That is typically not around safety or QI, but that is around the guidelines, order sets and pathways. The second focus would be at the unit manager level around things like standard operating procedure for ordering an X-ray or an MRI or a lab.

Deegan: From our organizational perspective, we have a quality and patient safety plan. We try to organize our initiatives under one of five aims: 100 percent expected clinical outcomes are the first aim. The second is top 1 percent patient satisfaction. The third is no preventable patient injury. The fourth is no preventable patient death. The last one is cost efficiency. In order to effectively communicate with stakeholders at multiple levels, we select key performance indicators under each of those, both annually and at three-year intervals. The challenge in a multihospital system is to drive integration and reduce variation. We have been building toward systemness and common practices, and at the same time pursuing specific initiatives under each of those five aims.

Englebright: We have also been working on integration and reducing variability. We have studied hospitals that are outliers on both ends of the scale, trying to see what the differences are. The other thing we are working on that may be a little unique to the community hospital environment is trying to align physicians and the hospital in a movement toward change. Each practitioner is already practicing in the manner that he or she believes is best. Reducing variation boils down to each private practitioner making changes in how he or she practices. So we are trying to capitalize on our aligned incentives around delivering the best possible care.

Starting line

Molpus: *Chains and branches of care processes in hospitals are multidimensional. Where do you start to tell hospitals to break it down to improve quality?*

Mayfield: Hospitals need a structured approach to improvement. You have to start in a particular area by selecting something you want to improve and get your arms around it. There are four main components: patient information that supports clinical decisions, care processes generated by those decisions, and processes that both act on the patient and drive the flow of the patient through the organization. So if a hospital wanted to break down its

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> —Paul Keckley

processes, my recommendation is to look at the basic system—information, decisions, care processes and flow. There is a template you can use to look at that for a particular patient modality, DRG or outpatient procedure and identify the greatest opportunities for harm, for handoffs, and the attributes of performance and error at each of those four stages.

Englebright: We usually try to do any of our process flow analyses starting at the patient bedside and going back. Mainly we use the process flow analysis to turn the light bulbs on and identify those processes that are clearly error prone to do the number of steps, handoffs or decision-points. Then you can get an openness to talking about doing things a different way. Tweaking the process has not been the answer. It has been starting over with a clean slate and defining how we really need this process to work.

Molpus: *How do you operationally make performance improvement work across the system?*

Deegan: All 13 of our hospitals are within a two-hour drive of one another, so we do a lot of meeting together in what we call clinical and operational performance improvement councils (COPIC). We have one in cardiovascular. So the cath lab director from each hospital will be a COPIC member, and we bring them together on a monthly basis, and we facilitate through staff that reports to me. We use that forum to talk about how we are going to do this, to share how everyone else is doing it, and work toward reducing variation, without attempting to dictate what the preferred method is. We want to be respectful of the local operational idiosyncrasies of each hospital.

Molpus: *How does that work?*

Deegan: We have the target, we share the knowledge, and then we create the accountability to meeting or exceeding that target. We did that last year with ventilator-acquired pneumonia. In 2005 we set the ventilator bundle for all of our ICUs and took a year to put those five practices in place. Now in 2006, we set targets for ventilator-acquired pneumonia based on the application of those approaches. We refined that model and we are getting a lot of leverage out of that.

Molpus: *Does the medical staff participate?*

Deegan: On the physician staff side, we have 4,000 voluntary members of our combined medical staff. For them we have another model called clinical congresses that we try to schedule three times a year. We now have six different specialties. For example, with critical care, we invite intensivists who are practicing in all of our hospitals to participate in a critical care congress with a predefined agenda, and we link that to the COPIC on critical care. So we have the nurse managers and physicians in all of those hospitals conferring together for two hours about specific, defined objectives. We are getting some return on investment, but I will be the first to admit there is a fair amount of complexity and cost to doing this.

Finding data

Molpus: *Can you describe the data warehouse you have for quality and safety?*

Englebright: We don't have one. We have a very powerful set of data around finance, and we are getting there around operations. But the ability to easily pull clinical data and look at it is very difficult. We have been able to make big strides in process improvement with imperfect data. Even when the data is imperfect, we have learned to start with measurement and try to get comfortable with using indicators instead of measures. We can see a trend getting better or worse even with relatively crude measurement, and after that we can figure out how to get the powerful clinical data we need

Deegan: On the core measure indicators, we invest a lot of time and energy in chart abstraction. We have a system data-support program that allows that to be automated once the chart has been abstracted and consolidated, so we can communicate with the external world. The intermediary vendor is Premier, and then that goes on to the Joint Commission and THCIC, etc. Like everyone else, we use administrative data for a variety of activities in the clinical performance arena, but we have less confidence in that than we do in our abstracted data. On the patient-safety side, we had a paper-based adverse event reporting system that we replaced about 15 months ago with an institutionally developed, Web-based reporting tool for adverse events and near misses called "Safety Action Learning Tool." In the first 12 months, we had about 27,000 reports self-generated by employees from across the system about either adverse events or near misses.

Keckley: It is beneficial to have informatics as a strategic imperative. We have 420 FTEs in informatics. So we have the ability to develop and mine our own

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data. If you look at primary reporting metrics—core measures, NQF, CMS Hospital Compare, NCQA and Leapfrog—we'd get to a roundup of about 300 measures on the acute side. We augment that with an electronic medical record in our medical practices. There will be about 150 measures plus a set of discreet process measures for each clinical practice. Where all that is going is really anyone's guess at this point. We expect that all of our pricing, all of our clinical adherence data, all of our errors will be publicly reported within three years. We have to be ready to present all of that in way that is doctor-specific, diagnosis-specific and at a system-level view of our performance.

Molpus: *Steve, you work with some smaller hospitals. How are they approaching the data repositories they may need in the next few years?*

Mayfield: Hospitals amass lots of data that are not necessarily "information." On the other hand, if you can first find someone who has a willingness to change, then a small set of data may support a move toward the appropriate direction. The best opportunity for smaller hospitals with limited resources is to identify what is important in their community—whether it is mortality or readmission—and collect just the bare data elements to determine current performance , and then go about the business of change. In general, for most hospitals, they should reduce the number of things that they are collecting and do more with a smaller set.

Deegan: Organizations have gone to more measures, not fewer. There is more for a variety of reasons, and a lot of that has to do with the external environment and the different players in that environment who are, if not actively forcing us, certainly encouraging us. I was reassured to a certain extent during the National Patient Safety Foundation meeting a few months ago in that there were two sessions: the Joint Commission had an update on national patient safety goals, and then there was an AHRQ/NQF presentation. What I took away from both of those is that all three of those organizations are talking to each other more effectively than they have previously. But we are certainly not there yet.

Molpus: *This Roundtable is about the complexities of the quality system. One of those complexities is certainly the lack of a uniform set of measures. How would you assess the progress toward a uniform data set?*

Deegan: I think we need an agreed-upon national data set where there are common operational definitions for each of the metrics. You may not agree with the metrics, but they were reached by consensus and this is how we are going to measure it. Then I think we need complete transparency in how that data is used. And by that I mean none of these secret proprietary formulas that use data that is three, four, five years old to cast different organizations in a certain light using administrative data and not looking as good as one or the other. I just don't think that is a value-added way to improve quality and safety.

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—Michael Deegan

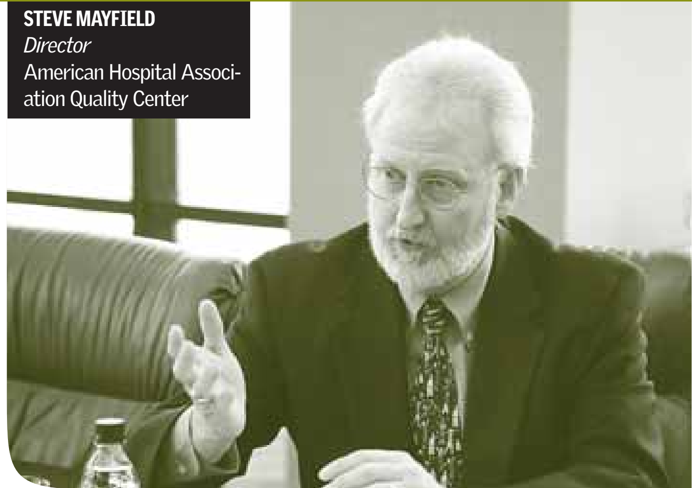
Keckley: Yes, we are making progress. We looked to the wrong places initially for the source of the standard. We looked to silos that had a vested interest in their standard at the expense of understanding the system. So 95 medical societies had their own guidelines, and things like that. I think we are going to be there. It will not be in 18 months. But in a three-year window, we should be there.

Englebright: We share that optimism. Our approach from the beginning has been that we are happy to report, but we'd like it to be a standard set of measures so that we are not spending all our resources collecting disparate data, or trying to fit the same data into a different set of denominators.

Going Public

Molpus: *Measuring is one thing, but public reporting and transparency are the next level of complication. Paul Davidson, is fear of litigation still holding back public reporting?*

Davidson: It goes back to the need for a change in culture. There is the concern that transparency will lead to additional lawsuits. But our national interest in providing quality healthcare must trump that fear. The tension is between the civil tort system's need for full discovery and the hospital's need for a self-critical analysis privilege. There are a number of laws that have been passed on the state and federal level to institute such a privilege, but there



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is inconsistency between the federal and state systems in terms of how those laws are applied. Even among the states, different judges apply privilege laws differently. So healthcare providers don't feel confident the protection is there. There are some folks in this debate who believe information about errors should be made public. In any event, because of the competitive nature of our healthcare system, if the board of trustees at hospitals knew that information about quality and patient safety would be public, quality and patient safety might become more of a priority because it would more directly hit their bottom line.

Molpus: *It has to be an enormously scary proposition for a hospital's leadership to think of putting negative indicators out into the public.*

Englebright: I think that has already happened with the Hospital Compare Web site. Is there concern? Yes, but the leaders are dealing with that concern. What we are struggling with is how do we know results ahead of the public knowing? Because we are getting the specs for these measurements just barely in time to get them written and implemented. We are seeing the results at the same time as the public.

Molpus: *Are there indications that public reporting is influencing consumers?*

Keckley: There was an article in the Journal of the American Medical Association on this with the conclusion that consumers aren't paying a bit of attention to it. It doesn't matter. It has not shifted market share. It has not had people pick a different hospital or different doctor because it is out there. So it is kind of a "good news, bad news" scenario.

Davidson: The people who may really pay attention to pubic reporting are the leaders of competitive hospitals. If your competitor sees that they are falling behind your hospital, they are going to make improving their systems a priority. The fear that the market will react to public reporting of errors may drive them toward improvement.

Molpus: *The data from the CMS' pay-for-performance demonstration project is pretty convincing on outcomes for procedures if you follow a set of steps.*

Keckley: One is an understanding of evidence as not black or white, strong or weak, but a continuum. In the areas where we have strong evidence, we should standardize care around that. For the most part, what we are dealing with are areas in which there is not strong evidence. The nature of the structure of the system does not hold the doctor or the hospital accountable for adherence when there is strong evidence. There is a system assumption that you will deal with the evidence as a professional, and we are not.

Molpus: *Is it moving in that direction?*

Keckley: It has to. There is no doubt that much of the unnecessary costs and much of your potential negative outcomes and complications are a direct result of bad judgment. We are not addressing that. We are trying to make better a flawed system.

Deegan: We keep using the term "healthcare delivery system." I must admit there is very little in terms of intentional design in the way most healthcare is delivered in the United States. I think we need to get outside this pseudo-system in the longer term and go through a complete redesign of how care is delivered. And then if that task were not big enough, we have to redesign how we educate. The practices that a physician carries through most of his or her professional life are the ones they embrace as residents and fellows. In one of our hospitals, we have 16 hospitalists. When people started to look, we found 16 hospitalists all managing diabetes differently. They all thought they had the preferred system. So we have this huge lack of uniformity. The accountability is just not there to have people adopt evidence-based practices where they are the most robust.

Molpus: *After all the technological and standard issues are addressed, the questions of improving quality will come down to some cultural issues within the hospital itself. What are the cultural barriers that have to come down first?*

Englebright: In the community setting, what we run into begins with this notion of autonomy. We are striving to move the discussion to identifying specific instances where safe and effective care is the overriding concern, not professional or individual autonomy.

Mayfield: That is a great difference between the culture in medicine and almost every other industry or system of work. Every other successful industry is engaging in continuous improvement. In medicine, it is almost like, "Leave that alone. Don't change that process!" Invariably, creativity and non-added-value steps creep in. We have to learn how to address that, to get information out of that environment into that feedback loop so that we can monitor our activities on a continual basis.

Molpus: *What are the pressures working to force providers to undergo that cultural change?*

Mayfield: I am hoping it will be an internal decision to continually work on reducing variability and eliminating waste.

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—Jane Englebright

Keckley: I think doctors want to practice the best medicine they can. Probably, they already think they do. They don't have the information to know whether they are right or wrong. What motivates behavior change in doctors is having access to data they consider current, valid and reliable about the patients in their practice, in a context where it is comparable to somebody else, in a "tools not rules," nonpunitive model. It is not so much that the external stuff is not out there; doctors are aware of it. It is more this angst that as a professional, I may not be as good as the next guy.

Deegan: I would submit that we finally have information systems that can give us real-time information of real utility for decision-making. That will lead to a tremendous culture clash that will play out differently across different generations of physicians. So I think we will have a big mess for another five, or as much as 20 years, as we go through this transition in what I'd call the industrialization of the practice of medicine. I would submit that a large portion of the current medical practitioners have no interest in being industrialized. They are genetically programmed not to accept a standard approach to anything. Until we start realizing that, and start selecting people and inviting them into the practice of medicine that will take their lifestyle tradeoffs and accept the industrial approach to caregiving and redesign the system, there will be a lot of angst. I don't see any easy and quick way around this. My personal opinion is that we ought to start with the youngest generation and work with them. The middle generation I would give some attention to. My generation—"traditionalists" over 55—I would be the least attentive to.

Molpus: *If we say that the last half-dozen years have been dominated by some of the basic process issues raised by the IOM report, what will be discussions in the next few years?*

Davidson: There will be a continuing legislative push to improve the quality of healthcare. We have laws on the books now that are not being enforced, or enforcement is uneven. In some case, the government has not yet come up with the regulations on how those laws will work. Doctors and hospitals want to provide the best quality care, and doing so will help the bottom line. I predict there will be continuing pressure to bring some uniformity to those efforts.

Englebright: On the clinical side, some of the exciting things that are happening right now would be the change in how we deliver care. We have a new generation of caregivers coming out that have been educated using these new tools, safer practices and technologies. Last year, while working with hospitals impacted by hurricanes, we encountered some staff who really did not know how to document on paper. We began to realize we were turning the corner. The new ways we have been struggling to implement the past three to five years are becoming the new standards. In the foreseeable future, we are going to see some of the things we have been struggling toward since that first IOM report became the new standard, so then we can move into that next phase of process improvement.

Mayfield: *Right now the payment system is basically upside down. If we want to align incentives, we can start with pay based on outcomes.*

Deegan: There will be increasing demand for transparency, despite our reservations. The big challenge we may face with that is what it will mean for the tort system. The second thing is we will see increasing numbers of metrics for both quality and safety. The only way we will be able to cope with them is by bundling them so we will have a whole set where you either get them all right or you get no credit. Third, I think there will be increased pay for performance or similar programs. All of this will mean actual improved performance. Clinical outcomes and the risks that patients are exposed to will actually improve. That gives me a lift to think about that possibility.

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