information edge

Patient Compliance with Prescriptions: A Hidden Problem

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EXECUTIVE SUMMARY

Patient compliance with drug regimens is an issue perennially at the heart of care, but one taking on even more significance today. In an era when the term "patient-centered care" has become a mantra for healthcare providers, patient compliance is finally being recognized as the critical factor it has always been in achieving positive outcomes. Consumer-driven or directed healthcare, whatever its eventual manifestation, stands or falls on patients assuming more active roles in their own care and wellness, and complying with therapy—and healthy lifestyles—is a given.

Finally, even from a narrow financial focus, patient compliance is an important issue because of its ramifications for achieving the most effective and therefore the most efficient care possible. Patients who take their meds are less likely to incur costly ER visits or become inpatients down the road.

Despite its significance, however, achieving patient compliance has always been difficult. Determining the scope of any compliance problems, tracking them and ensuring patient follow-through demands a strategy that combines information technology and social psychology in a way that has eluded most organizations. Success will only be reached through making patient compliance an integral component of an overall disease management program.

As the issues of patient safety and quality converge with increasing public health demands and the pressures of cost and accessibility, patient compliance will only grow in importance. Addressing the problem means searching for ways to enlist the patient more in his or her own care and using IT to standardize and streamline that care. What could be more important?

A hidden problem

The first obstacle to achieving patient compliance is determining its scope.

"It's largely a hidden issue," says Jane Metzger, research director of Emerging Practices at First Consulting Group. "The reason that's true is because we don't have a closed-loop system that lets us get a good fix on non-compliance," she says. "Even in the case of electronic prescribing, unless the prescription is tracked through to the pharmacy you're not going to know how many of the prescribed drugs even get picked up."

Few researchers have tackled that particular issue because most prescriptions are filled at community pharmacies where the patient presents a prescription on paper. Metzger cites a study[1] that found nearly 2% of free prescriptions were left unclaimed. (These results come from the military healthcare system where both prescribed and over-the-counter medications are included as part of covered healthcare services.) What was surprising was that both antibiotics and painkillers were unclaimed by patients who presumably had symptoms such as fever or pain.

[1] R.M. Craighead, Hospital Pharmacy, 1991

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WELCOME NEW CORPORATE PARTNERS

The Scottsdale Institute (SI) is pleased to announce the addition of two new Corporate Partners, Hewlett Packard (HP) and Siemens Medical Solutions, USA (Siemens).

"We look forward to working closely with both HP and Siemens as we continue to advance our program and develop additional ways to share knowledge and experience between our members and partners," said Stan Nelson, Founder and Chairman of SI.

Scottsdale Institute members are leading US health systems who are using information technology, process redesign, and organizational transformation to realize their vision of improved healthcare and health status in their markets. "Our member executives believe in the power of collaborating with their peers, and they value the opportunity to share information. SI is a vehicle for sharing experiences, knowledge and lessons learned, especially in areas where there are no tried and true answers," he continued.

Scottsdale Institute Founding Corporate Partner First Consulting Group, and Corporate Partners Stockamp & Associates, Lawson Software and Aventis MyDocOnLine provide educational services as well as financial and advisory support to the Institute.

Nelson added, "The Corporate Partner program is critical to our success. The intellectual capital, access to

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Jane Metzger, Emerging Practices, First Consulting Group, Boston, Mass.

There's also the issue of patients who pick up their prescriptions but don't follow through on taking them. It's difficult to determine what percent of patients don't comply with taking their medications because they don't remember, don't understand instructions or other reasons. "It's very hard to study," Metzger says, "though patients interviewed after a doctor visit often don't remember what has been prescribed and why, never mind any related instructions." If nearly 2% of free prescriptions were not retrieved, then the rate for prescriptions for which the patient bears some or all of the cost is likely higher, she adds.

One reason the actual rate of non-compliance is difficult to determine is because physicians must rely on the patient to tell them this information. The key factor: understanding patient follow-up. What to do next? Maybe they never took it. Pinning this down is critical for determining next steps. For example, patients who don't finish the course of their antibiotics risk rendering the treatment ineffective. Unless the physician understands what actually occurred, she may decide the antibiotic was ineffective, rather than the patient failed to follow instructions.

Searching for a solution

"Non-compliance is more of an issue with ambulatory care," says Metzger, adding that the question is: "What can a healthcare organization do about that?"

Online technology support may be limited to a cell phone in the patient's pocket that can provide alerts and reminders. But it's a pipe dream, Metzger asserts, to believe that patients will religiously check into a Website to help them manage their medications. "This kind of solution has never taken off. I don't know what technology solutions you can cite, except for a few HIV patients systems," she says.

"Patient compliance is a hidden problem and a big public health issue across the country, but I don't know what the solutions are," Metzger says. While some disease-management programs encourage chronic disease patients to keep diaries, and doing that can serve as a reminder, by and large mainstream solutions are scarce to non-existent. The problem is even larger when it's considered that healthcare self-management instructions aren't limited to medications, but include a whole range of therapies.

At least physicians will have a better picture of what's going on, if we ever get to the point that e-prescribing takes off *and* community pharmacies receive electronic prescriptions, track them until dispensing, and then notify physicians when patients fail to pick up their medications or scheduled refills. This scenario too seems a long way off, Metzger says.

A complicated personal issue

George Conklin, senior VP and CIO at Houston-based CHRISTUS Health, agrees that patient compliance is a big issue. "As a former psychologist, one of our biggest problems was patients not taking their meds and ending up back in the hospital," he says.

As a CIO today, Conklin also wonders if there is an IT solution to the issue.

"It's a personal decision to take or not take a medication," he says. Even if you alerted the patient via a cell phone or watch at set times of day, it still comes down to the patient following through. "How are you going to make a person take a medication? I don't think there are going to be any automated options" unless there will be

implants like ones for diabetics that can automatically trigger insulin production in the body when needed.

George Conklin, Senior VP and CIO, CHRISTUS Health, Houston

And taking medication can have its own special psychology, depending on the patient. "One of the things we've seen with psychiatric patients is that they think they're sick, debilitated and can't interact and as a result, those folks will stop taking their medications because it reinforces the fact that I'm sick and want to get well," says Conklin.

"You've got to get the person to really believe. It's the emotional touch point for the patient. They need to grasp the fact that they're better off for taking this. Almost 100% of compliance issues in medicine are psychological: taking my drugs, doing my exercise and maintaining proper diet," he says. It involves human decision, change of behavior, repetition and marketing to get the right message.

More 'talking cure'

Conklin recalls that in treating psychotherapy patients, he spent the first 10 minutes on diagnosis but the next 10 years on convincing the person. "It's a repetitive practice thing."

Ensuring compliance will require creating more opportunities to sit down, spend time and talk with the patient, to make more time in the therapeutic process. Automation supports that by making a physician's life easier in other respects, but IT is a double-edged sword. If we do give physicians more time to see patients, they'll see more patients. It's the responsibility of physicians to see that they do spend more time with patients.

"The fundamental failure of the healthcare system is that we've moved away from the Dr. Marcus Welby caring-about-the-patient model to a focus on throughput, the chart and bottle samples. We don't have a one-to-one relationship," he says.

Start with the EMR

Carvel Whiting, CIO at Salt Lake City-based Intermountain Health Care, agrees the main issue with patient compliance is how to influence human behavior. One answer: When the primary care physician sees the patient, he or she is aware of the potential problem and is in a position to do education and follow-up with the patient. Automated systems can assist the physician to do that. For first-line care providers, easy medication-order modules can help.

Carvel Whiting, CIO, Intermountain Health Care, Salt Lake City

Doctors can view the patient's medication list, ask the patient if they're taking those drugs and can click a button to print educational materials on when and how to take them.

And despite some experts' jaundiced view of Web-based tools to facilitate compliance, Whiting believes that one solution is to offer patients access to a Web site to look at their medical records to view medications, print out information and follow-up steps.

"We're also piloting communication directly between the patient and his or her physician. I can see a day when physicians or the system alert the patient via email a few weeks after a visit with 'How are you doing?' or an automatic telephone call triggered by the electronic medical record (EMR). Today we send out letters to remind women about mammograms," which helps them comply with the need

New Members continued

experts, and the support for education and collaboration they provide are important benefits to our members. We welcome HP and Siemens to the Scottsdale Institute family and look forward to the many contributions they will make."

Hewlett Packard is a leading global provider of products, technologies, solutions and services to consumers and businesses. The company's offerings span IT infrastructure, personal computing and access devices, global services and imaging and printing. HP completed its acquisition of Compaq Computer Corporation on May 3, 2002. HP improves the delivery of healthcare through innovative, adaptive, leading-edge solutions supported by world-class partnerships. HP solutions for the healthcare market drive business value and improve the return on IT investment.

Siemens Medical Solutions of Siemens AG (NYSE: SI) with headquarters in Malvern, Pa. and Erlangen, Germany, is one of the world's largest healthcare suppliers. The company brings together innovative medical technologies, healthcare information systems, management consulting, and support services to achieve tangible and sustainable clinical and financial outcomes. From imaging systems, to therapy equipment, to patient monitors, to hearing instruments and beyond, Siemens innovations contribute to the health and well-being of people across the globe, while improving operational efficiencies and optimizing workflow in hospitals, clinics, home health agencies and doctors' offices.

for regular diagnostic imaging, Whiting says.

Such a system depends on having an integrated EMR, which includes all the data from all the venues and an alerting and reporting infrastructure. "This is already being done on certain kinds of things like mammograms. We'll see a lot more," he says.

Partly because it has its own health plan, Intermountain has put a lot of effort into well care to keep people out of the hospital. But it's also clear health insurers will be quite interested in patient compliance programs because of the resulting reduction in costs.

Self-metering patients

Martin Harris, MD, CIO of the Cleveland Clinic, which cares for about 2.2 million patients a year in northeast Ohio, says non-compliance begins at the pharmacy with the cost of medications, especially with uninsured patients, who can't afford them.

THE CLEVELAND CLINIC FOUNDATION

Martin Harris, MD, CIO, Cleveland Clinic, Cleveland

"We're seeing patients doing 'self-metering' in which they get only half the prescription dose or take it every other day," he says. "They'll order 100mg and take 50mg every other day. We see all of those. Patients will tell you they're doing it."

Those who can afford the medications often have problems remembering to take them. As the population ages, the problem of compliance is exacerbated because patients typically must take one pill three times a day, another twice a day and yet another once a day. Minor side effects also take their toll. For example, patients who experience negative side effects with a drug often change their medication pattern on their own.

Harris sees multiple roles for IT in helping ensure compliance, most importantly in providing observational support. For example, the Cleveland Clinic has an online prescription-writing program. "If I write tablets for twice a day for 90 days, the system knows that it reaches 180 on April 1st. I'd expect the patient to be calling me back near expiration," he says, adding, "If the patient never calls me about it that tells me something."

On the flip side, if the patient is back three weeks early to renew her prescription, it also tells the physician that something is wrong. "Technology plays a surveillance role," Harris says.

Remembering to remember

Technology can also help patients remember. A number of online services allow patients to record the fact they took their medications. While Harris acknowledges the online system requires an extra step, the advantage is that it allows self-tracking.

"I don't think they're terribly popular but as patients move to other online services in general, their use should grow," he says. Cleveland Clinic provides an online service—dubbed eCleveland Clinic MyChart—that allows patients access to their medical record including medication list, allergies, appointments and laboratory tests. There's also a wellness feature that can predict, for example, if you are a female over fifty you need a mammogram.

It's in that kind of integrated setting, not as a standalone, that IT works for patient compliance, Harris says. For example, the online system also tells patients when their next appointment is, eliminating the need to make a telephone call. They can request an appointment, identify their physicians, select dates, time and day of their appointment.

MEMBERS IN THE NEWS

Lowell C. Kruse, President and CEO of Heartland Health, St. Joseph, Mo., received the 2003 Justin Ford Kimball Innovator Award from the American Hospital Association. The award recognizes individuals who have made outstanding contributions to healthcare delivery and financing. "Lowell has been a leading, nationally recognized presence in creating health communities," said AHA President Dick Davidson. "His strong belief not only in the mission of hospitals to care for the ill and injured, but in the concept of keeping people healthy and making them healthier has inspired and influenced the field for the better."

Scott Anderson, president and CEO of North Memorial Health Care, Robbinsdale, Minn., graced the cover of Modern Healthcare's April 28 issue and was highlighted in the accompanying feature story, "Staying Put." The article discussed how a combination of the economy and board support have resulted in the lowest turnover among hospital CEOs in years. Scott seems to transcend outside factors, however: He's held the same position for 22 years. "The relationship the CEO has with the board is key," Anderson said in the article.

The utilization rate is 3% to 10% depending on the patient group, a rate that should grow as the use of broadband grows with other services, he says.

Cleveland Clinic has another online program for patients, called A Second Opinion, that allows patients with life-threatening diseases—between 200 and 300 diagnoses of a universe of 6,000—to participate in an online question-and-answer process that provides additional perspectives on their illnesses, treatment and management, ultimately helping patients take charge of their own health, which involves complying with best practices of self-management. Harris says that patient response to using the system varies from the highly motivated who take the Q&A at home to those who will do it on a computer in a physician's office to those who are interested but balk at technology.

"That's true about any service, whether it's provided virtually or face to face. Most of the interventions on the medical management side are highly dependent on human behavior," he says. "One of the last great frontiers in medicine is truly understanding why people behave in certain ways, and then optimizing their behavior as it relates to health. It may be influenced positively by technology but the same is true of an office visit as well."

Buddy system

Still, if designed correctly, technology can greatly enhance patient compliance in the right situation.

Health Hero Network Inc., a Mountain View, Calif.-based firm, makes the Health Buddy appliance, a six-inch-wide device with a four-inch wide screen that functions as a primary interface for secure communications and data collection between patients and providers. Designed to be a personal, easy to use, in-home communication and monitoring appliance, the Health Buddy has been awarded Best Product by Business Week magazine and Best Enabling Tool by the Disease Management Association of America.

Once it's plugged into a telephone line and power outlet, the Health Buddy asks the patient a series of daily questions about vital signs, symptoms and behaviors. Patients respond by pushing one of four blue buttons. The appliance responds to those answers with education and messages that prompt patient action. After midnight, the Health Buddy silently and automatically dials a toll-free number to transmit the information to the patient's authorized physician or other provider, who can access the information on a Web-based system called iCare Desktop. The appliance calls in at least once a day, but depending on patient responses, the device can be programmed to dial in immediately or multiple times per day as specified by a care provider.

"Overall—regardless of the patient's age, medical condition, geographic location or even language—compliance rates with the Health Buddy are consistently 85% to 90%," says Kristine Gardner, a spokesperson for Health Hero Network. In a disease management program run in Florida by the Veterans Health Administration, for example, 662 patients were given the Health Buddy. While 63% of those patients were compliant with medications upon enrollment, the rate soared to 93% under use of the appliance, and diabetics complied with their taking their medications at a 95% rate, surpassing the target goal of 78% based upon VHA performance standards.

Upcoming Events

For information on any of these programs, please contact the Scottsdale Institute office at 952.545.5880.

June 4, "Adaptive Infrastructure," Mike Feldman, Hewlett Packard, provides an industry overview and trends discussion.

June 11, "Pay for Performance: Boston market case study," Dr. Tom Lee, Medical Director of the Partners Healthcare physician network, provides a review of the P4P incentive program in place between payers and providers in Boston, and the approach and process he used to create it.

June 17, "Achieving CPOE: Barriers, Success Factors and Lessons Learned, the Ohio State Story," Asif Ahmad, CIO, Duke University Medical Center and former CIO at OSU, presenter.

June 19, "Knowledge Driven CPOE and Patient Care Results," Scott Weingarten, MD, Director of Health Services Research at Cedars Sinai Medical Center, CEO, Zynx Health, and Clinical Professor of Medicine at UCLA, reviews the key challenges in clinical knowledge management utilizing CPOE systems. In addition, we discuss physician acceptance of order sets and CDS, and the real bottom line: does patient care improve?

June 25, "Rapid Redesign in Systems Implementation: An Advocate Case Study," Joel Shoolin, DO, Vice President for Medical Informatics, Advocate Healthcare, and Mamie Stalvey, FCG, present a successful approach to

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Upcoming Events continued

system design based on rapid stakeholder consensus building sessions. Learn about this efficient process to achieve care standardization by optimizing evidence-based tools, using on-line documentation, and integrating multidisciplinary patient data.

July 9, "Enterprise Storage for Medical Imaging," a presentation and discussion lead by Mark Gonzales, John Collins and Gary Quinn, Hewlett Packard.

July 15, "Ambulatory CPOE: Benefits Measurement," Blackford Middleton, MD, MPH, MSc, is Chairman of the Center for Information Technology Leadership (CITL) Executive Committee, Director of Clinical Informatics Research & Development for Partners HealthCare, and an Assistant Professor of Medicine at Harvard Medical School. He quantifies the opportunity for safety improvement as defined by the CITL research data, and demonstrates how the CITL tool can improve quality, cut costs and improve the bottom line.

July 17, "Achieving Magnet Status: Measurable Benefit," Dr. Linda Urden, Clarian Health, and Chair of the Magnet Commission board, discusses how a variety of organizations are achieving significant benefit from the Magnet Program and its' application process.

July 30, "Clinical Practice Variation: Using Metrics to Effect Change," Linda Lockwood, FCG, presents examples of efficient data collection and effective

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Fewer ER visits

Perhaps more importantly, the overall 18-month program resulted in a 46% to 68% cut in inpatient admissions, depending on the community; ER encounters dropped 42% to 70% depending on disease and location.

In a 2000-2001 study at Mercy Health Center in Laredo, Texas, indigent, Spanish-speaking patients with diabetes and congestive heart failure (CHF) participated in a telemedicine disease management program using Health Buddy. A key focus of the program was compliance with medication. Patients were asked regularly about their medications, with an emphasis on helping patients understand why it was important to take them and to remember to take them. The results: After one year, medication compliance for both diabetics and CHF patients jumped to 94% from a previous 34% before using the device.

Patients seem to find the Health Buddy convenient to use. PacifiCare Behavioral Health in Laguna Hills, Calif., launched a program for CHF patients and found that more than 90% of questions asked the patient were answered on the day they were received and about 96% of questions were answered within one day of being asked.

MDS Pharma Services, a contract research organization (CRO) that manages clinical trials, compared use of the technology by patients to keeping manual diaries. It found that about 90% of the patients used the device daily—with daily inputs being time-stamped. While no figures were available for the compliance rate for manual diaries, anecdotal evidence suggests that many patients complete those diaries at the last minute before turning them in.

A key feature of the Health Buddy, which can cost $1.00 to $1.50 a day, is that the content on its small screen can be changed easily to conform to a disease management program or a clinical trial. "It's very flexible," says Gardner. Indeed, to keep patients motivated, the appliance is programmed with trivia questions for the patient to answer and those must be changed regularly.

Let's play tag

Dramatic improvements in the use of technology to foster patient compliance may be only a radio wave away. Auto-ID radio frequency identification and tracking technology—which uses "tags," or microchips with antennas, to identify and track the location of any object anywhere in the world—is just beginning to crack non-healthcare industries and may be headed toward a pill bottle near you.

"The greatest technological revolution to shape the consumer goods industry since the appearance of the barcode has begun," says consumer advocate Tim Duffy in reference to Auto-ID. (http://www.timduffy.com/supermarkets/micro_chip.htm)

The center of this technological ferment is the Auto-ID Center at the Massachusetts Institute of Technology, whose mission is to design the infrastructure and develop the standards to create a universal, open network for identifying individual products and for tracking them as they flow through the global supply chain. (hhtp://www.autoid-center.org)

The idea is that every product manufactured would have an embedded tag, at a cost of only a couple of cents that, would contain its own special code. Using radio waves, these tags will "communicate" their codes to readers located in plants, warehouses, stores and shelves.

"Help! I'm trapped in a medicine cabinet."

Auto-ID makes just-in-time seem like old-time. It will allow businesses to confirm if the products on their shelves are authentic, how many they have and how fast they're selling. It will also allow them to know immediately if someone has shoplifted a huge amount. Industry sees the technology saving supply chains billions by combining produce-to-demand capability, theft reduction and a reduction in manual stock keeping.

How this capability applies to patient compliance is both amazing and scary. Physicians could monitor how well patients were taking their medications by using tagged pill bottles in a medicine cabinet. Presumably the tag could communicate to a remote reader if it had been used or not, alerting the doctor if there was a problem.

Naturally, the ability to garner such detailed analysis about a person is likely to make consumers uncomfortable, and to make this technology acceptable, ways must be developed for consumers to opt in or out of the system.

A muscular compliance

Still, gee-whiz technology aside, psychology may be the final frontier when it comes to patient compliance.

Many disease and care-management companies have known this for years. Take Landmark Healthcare Inc., a Sacramento, Calif.-based firm that provides physical medicine services—physical and occupational therapy, chiropractic, orthopedics—to patients with acute musculoskeletal conditions such as low back pain. Its clients include healthcare systems, IPAs and health plans.

Joe Klinger, President, Landmark Healthcare Inc., Sacramento

While the company focuses more on patient compliance with therapy, its approach is universally applicable to any therapy, including prescription-drug regimens, says Joe Klinger, Landmark's president.

By shifting to clinical results and away from a traditional managed care approach, Landmark was able to apply a consistent, rational approach to the issue of patient compliance. "Because we focused on outcomes as opposed to simple unit cost control, we were able to uncover the real problem of compliance," which is that it involves distinct stages, says Klinger. By understanding those stages, caregivers are much more likely to help patients comply with their regimens and achieve positive outcomes.

The stages of healing

Bruce Sperlock, MD, director of Landmark's disease-management program, says his firm helps provider organizations look at compliance not as conformity but as change. "We follow the physiological stages of healing. At different stages, different tool sets are needed. Change isn't a single, overnight process, but one which is temporal."

Based upon research by James O. Prochaska, PhD, at the University of Rhode Island, Landmark uses his five-stage model in its approach to patient change or compliance:

1. Pre-contemplative
2. Contemplation
3. Preparation
4. Action, and
5. Maintenance

The company views itself as a resource to practitioners, facilitating collaboration in the best way it can, sometimes through counsel, other times through formal survey assessment tools that identify what stage a patient is in.

"This is a model based on a number of research studies in the behavioral sciences," says Klinger. "The real innovation is applying it to physical healing." But perspective is everything because the term compliance itself suggests promulgation of rules by an authority with which we comply, he says. "Change is a different perspective. One size does not fit all."

For example, an inpatient with a physical ailment may need to move from a passive care situation in bed to actually moving. Preoperative patients are in different stages than post-operative ones. But it's not just acute illnesses. The same model can be applied to smoking cessation programs. Helping practitioners understand exactly what stage the patient is in helps them understand how to best approach the patient and move them to the next stage of healing.

Upcoming Events continued

reporting techniques that will help you lead constructive change processes.

August 6, "Lower your TCO with IT Consolidation," a review of leading practices and results presented by Hewlett Packard.

August 13, "Computerized Clinical Documentation: Supporting a Healthy, Healing Work Culture," Bonnie Wesorick, RN, MSN, CEO and Founder of the Clinical Practice Model Resource Center (CPMRC) and Michelle Troseth, RN, MSN, CPMRC, will open a 6-part series of teleconferences that will describe fundamental elements essential for the creation of healthy, healing work cultures and integrated care through the deployment of clinical documentation. A self-evaluation tool will be introduced and participants will self assess during the call.

August 20, " Evidence-Based Practice and Automation," Diane Hanson, RN, BSN, MM, Marti Rheault, RN, MSN, Donna Mayo-Rosa, RN, MSN, all of CPM Resource Center, review how interdisciplinary documentation systems based on professional practice frameworks, meet regulatory requirements, support evidence based medicine, and can create a healthy healing work culture and integrated care. Linkage to standardized language/taxonomies will also be shared.

August 27, "Cultural Transformation: An Assessment for Automation," Laurie Shiparski, RN, MS, CPMRC, describes an organizational assessment approach that quickly and effectively

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Upcoming Events continued

identify the fundamental elements of a healthy work culture and integrated care at the point-of-care. The assessment also identifies the organizational readiness for cultural transformation and computerized evidence-based practice and documentation.

September 3, "POC Interdisciplinary Integration: Defining Scope of Practice," Tracy Christopherson, RRT, Kathy Wyngarden, RN, MSN, and Michelle Troseth, RN, MSN, CPM Resource Center, provide case studies. Presenters will share scope of practice definitions completed with nine clinical disciplines and how clarity on scope of practice can drive initiatives in evidence-based clinical practice guidelines, computerized clinical documentation, and interdisciplinary integration at the point-of-care.

September 10, "Mobile Devices and Clinical Efficiency," an update on devices and their successful use and impact in the clinical setting presented by Hewlett Packard.

September 17, "Skill-Building for a Healthy Work Place through Computerized Clinical Documentation," Laurie Shiparski, RN, MS, Laurie Levknecht, RN, BSN, and Tracy Christopherson RRT, CPM Resource Center, describe the skills required of those who lead and those who use the computer to support advancement of practice or service.

For information on any of these programs, please contact the Scottsdale Institute office at 952.545.5880.

Such a structure doesn't necessarily mean face-to-face meetings with providers, but does imply a game plan. "This whole strategy takes the authority paradigm and moves it into interactive dialogue, which is more individual. It's a collaborative model more than an authoritarian one," says Joel Stevans, DC, director of Landmark's musculoskeletal disorders management program.

Conclusion

Kevin Wardell, president of Norton Hospital in Louisville, Ky., believes the issue of patient compliance is really two separate problems and that we may be making a mistake by mixing them. The first problem is to assist those who are already motivated to follow through—in this case automated reminder systems and instructional helps of all kinds are terrific—and the second involves patients who will not follow through behaviorally because they are in denial, "don't believe doctors" and so on. "My father-in-law and father both had open heart surgery recently, and one is in each of these groups...so I can see that entirely different approaches are required for the two of them," says Wardell.

He also agrees with Klinger that we may be setting ourselves up for failure by calling this issue "patient compliance." Wardell asserts, "These terms mix up separate issues and imply a behavioral model ('let's make them comply') that simply won't work for some. It sounds like the old days in which the doctor dictates and therefore the patient should follow through obediently. That approach just doesn't work for a significant portion of the population. We need to be more sophisticated in modifying behavior, and maybe a new term could help clarify this."

That view is the future of healthcare for firms like Landmark. In such a scenario, the problem of patient compliance with medications or any other therapy is amenable to solutions that apply a positive, rational model that reflects human behavior. It's an analytical approach that tries to be objective in an area that relied in the past mostly on guesswork or inconsistent thinking.

But it also tries to look at the problem of compliance from the patient's point of view. In a confusing era when many mistakenly apply the rubric of consumer-driven care to what's in reality cost-shifting to the patient, a behavioral model may be just what is needed in all of care, not just chronic disease. From that perspective, also using technology to remotely monitor and communicate with patients makes a lot of sense.