# Doctor-pharmacist collaborations: cure for errors or threat to autonomy?

## Questions about control and reimbursement make the idea a hard sell

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By Phyllis Maguire

As medicine struggles to address the problem of drug errors, one physician has found a solution that not only gives her peace of mind but may have saved a patient's life.

An elderly man came to Erin C. Snyder, MD, with a bladder infection. He was seeing several specialists and taking more than a dozen medications. So when Dr. Snyder, a family practitioner outside Indianapolis, prescribed a sulfa antibiotic, she took an extra precaution and faxed a copy of the script, along with a list of the medications the man knew he was taking, to a pharmacist who works for her as a consultant. The pharmacist called the patient for a complete list of medications, checked them for interactions—and called Dr. Snyder back almost immediately.

"The sulfa antibiotic would have had a direct reaction with a cardiac medication," Dr. Snyder recalled. "I was able to get a hold of the patient even before he went to the pharmacy."

With more than 8,000 medications on the market and three billion prescriptions written each year, prescription errors are a top concern of the U.S. health care system. Last year's Institute of Medicine (IOM) report, which estimated that between 44,000 and 98,000 people die in U.S. hospitals each year as a result of medical mistakes, has brought new public scrutiny to the issue of drug errors. While some analysts argue that the report's findings are exaggerated, few disagree with the central conclusion: Health care needs better systems to prevent deadly errors.

As Dr. Snyder has discovered, doctor-pharmacist collaborations are one strategy that can reduce adverse drug events and improve patient care. The problem is that implementing such systems is extremely difficult, particularly in private practice settings.

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A big hurdle is money. While it makes sense to have follow-up care or a second set of eyes review prescriptions, there are questions about who will pay for the service.

An even bigger obstacle, however, is physicians' fear that pharmacists want to grab part of their prescriptive role. As evidence, they point to the fight that pharmacists are waging in a number of states for expanded prescribing authority.

**What works**

Collaborations between pharmacists and physicians are not entirely new. Pharmacists in many outpatient Department of Veteran Affairs facilities, for instance, manage anti-coagulation and lipid clinics, as well as disease management programs for diabetes, asthma and smoking cessation. Kaiser Permanente pharmacists also manage patients with specific conditions such as hypertension or who take medications like warfarin, independently adjusting dosages within physician-approved guidelines.

Collaborative arrangements are also on the rise among medical groups that accept capitated risk for pharmacy and hospital costs. In California, for instance, some large medical practices are saving money by hiring pharmacists in-house and paying them to fill prescriptions, adjust dosages, monitor patients and manage chronic conditions.

And some states are reimbursing pharmacists to monitor and educate Medicaid patients. Mississippi, for example, pays pharmacists to manage Medicaid patients with diseases like diabetes and asthma.

Recent research has shown that giving pharmacists a greater role in decision-making can cut costs and improve overall care. A study in the July 21, 1999, Journal of the American Medical Association (JAMA) examined two intensive care units (ICUs) in Boston's Massachusetts General Hospital where pharmacists rounded with residents, nurses and attendings. The study was the first to quantify benefits from including pharmacists in real-time drug order decisions for specific medications and dosages. It found that pharmacist participation cut the rate of preventable adverse drug events by 66% and saved the ICUs an estimated $270,000 per year.

For Dr. Snyder in Indianapolis, there is no doubt that her collaborative efforts with pharmacist David J. Blair have paid off. She asks Mr. Blair to call about 20% of her patients within a few days of their office visits—patients she suspects may have compliance problems or possible side effects. To date, he has called 600 of her patients and discovered problems in roughly 20% of his calls.

"I find out who didn't pick up a prescription because they didn't want

to wait at the pharmacy," Mr. Blair said, "or they filled it and they're feeling better, but they didn't finish their medicine. It gives the physician a lot more information on how to dose and prescribe next time."

In cases where there may be an adverse reaction, Mr. Blair immediately calls Dr. Snyder, who changes the medication or sees the patient again. For more routine calls, he faxes a report of his conversation with the patient to Dr. Snyder's office.

Her staff ends up spending less time on the phone and more time with patients, and her practice gets perfect marks in patient follow-up.

Mr. Blair also provides what Dr. Snyder called "another big piece in the communication puzzle." Through him, she's learned which of her patients can't afford non-formulary prescriptions, who listens to herbalists and who gets a slight rash from a certain antibiotic, a reaction they might not call her to mention.

Despite the arrangement's success, it is rare in outpatient settings. There are few companies like the one started by Mr. Blair that provide follow-up pharmaceutical services for private practice physicians. And there are few payment mechanisms that reimburse pharmacists for clinical services other than filling prescriptions.

According to Mr. Blair, he initially "gave the service away" when he first approached Dr. Snyder in order to test the effectiveness of including a pharmacist within the cycle of care. His company, Medical Compliance & Outcomes, today charges about $8 a call.

Every month, he bills the hospital that owns Dr. Snyder's practice an average of $1,000 for the collaboration, fees that Dr. Snyder said are well worth the cost. Not only has the hospital never questioned paying those fees, she said, but it is considering using Mr. Blair's service in its other 17 primary care practices.

**A hard sell**

The pressure for such collaborations, successful though they may be, comes at a tough time. Most physicians and pharmacists find themselves far removed from the close relationships once enjoyed by small-town practitioners and corner druggists thanks to the rise of chain drug stores, mail order and pharmacy benefit management companies.

But another big stumbling block is that many physicians associate talk about collaborating with pharmacists with threats of pharmacists encroaching on patient care. While Dr. Snyder is quick to point out that Mr. Blair works with her patients only at her direction, physicians in some parts of the country are seeing pharmacists push for more autonomy and power.

In some states, pharmacists are fighting to expand their prescribing rights. More than half of all states now have some sort of physician-pharmacist collaborative practice agreement, legislation that is

typically sponsored by state pharmacy associations. Pharmacists in some states can now change medication dosages or perform immunizations--changes that physicians and medical associations have rallied against, claiming that they go too far in blurring the line between medical and pharmacy practice.

Washington state, for example, has one of the oldest and broadest state agreements, permitting pharmacists to administer drug therapies (like emergency contraception) and immunize or vaccinate "anyone who comes through the door," said Len Eddinger, director of public policy for the Washington State Medical Association. While the law requires a physician to sign a "protocol" allowing pharmacists to provide such services, critics say it can give pharmacists too much independence.

"Where's the collaboration?" asked Mr. Eddinger. "A physician who works for a chain store signs a blanket protocol and makes the pharmacy the place to get immunized. What happens in the middle of the night with an adverse reaction? And what happens to the concept of caring for the whole patient?"

In some states, physicians have been able to limit the scope of legislated agreements. A 1998 agreement in Ohio, for example, allows pharmacists to monitor or modify drug treatments only for specific patients--and only when directed to do so in writing by that patient's physician. The original bill would have given pharmacists more autonomy and not enough physician supervision, said Andres B. Lao, FACP, a general internist in Alliance, Ohio. "I have a problem if pharmacists will change the medications prescribed, if they're allowed to prescribe and if they will do things without consulting with a physician on each individual disease process," he said.

Not all physicians in the state, however, backed the decision. "It is obvious that there are needs that are not being met, like less than 100% compliance with vaccinations," said family practitioner Anthony P. Restuccio, MD, who practices in Westerville, Ohio. "Why can't pharmacists pick up the slack and get the people we're missing? Physicians are overwhelmed with the number of duties we have to perform, some of which could be easily done by a pharmacist, making my job easier."

But most physicians disagree. "Pharmacists argue that their entire education is focused on drugs and therefore they know more about them than do MDs," said D. Craig Brater, FACP, chair of the Council of Medical Societies. "But proper therapeutics entails wedding drug knowledge to nuances of pathophysiology and the complexity of multiple disease processes. The pharmacist does not and will never have this kind of experience and insight. Thus, prescription authority must always be in the hands of the physician. The pharmacist can aid in the process but not replace it."

A collaborative agreement bill now being discussed in Georgia highlights another facet of the problem: Many mid-level professions are trying to get limited prescriptive rights. In Georgia, optometrists, advanced practice nurses and psychologists are all pushing to expand their role in prescribing drugs. Pharmacists want only to therapeutically adjust dosages within physician-directed parameters

for diseases like diabetes, but many physicians find even that kind of collaboration suspect with so many other groups chipping away at physicians' prescriptive domain.

Still, physicians ought to remain open-minded, said Paul L. Shanor, JD, executive director of the Medical Association of Georgia. "If there are ways to work this that it's good medicine with appropriate controls, then we ought to look at it," he said.

**Hospital efforts**

Another sign of just how difficult it may be to get physicians and pharmacists to collaborate comes from hospitals and large institutions. While there is generally not the problem of trust or turf found in private practice settings, systems that stress the importance of collaboration nonetheless face difficulties.

Consider the advent of computerized medication systems in hospitals. That advance has helped foster more collaboration because pharmacists must take a more active role in designing and interpreting the complex alert mechanisms that accompany such systems. Those endeavors have in turn expanded pharmacists' clinical knowledge and skills, making them more valuable collaborators for hospital physicians. (Similar benefits are being forecast for electronic prescribing in private practice. See "The writing is on the wall for e-prescriptions," this page.)

But financial problems have stalled efforts to equip hospitals with such systems. Only 12% of all hospitals in the country now have computerized order entry, according to the Huntingdon Valley, Pa.-based Institute for Safe Medication Practices. With reimbursements shrinking and computerized systems for medium sized hospitals costing between $5 million and $15 million, some analysts believe a substantial government investment in computerized order entry may be necessary to encourage health care to adopt the technology.

Lower reimbursements also mean less money to train hospital pharmacists. LDS Hospital in Salt Lake City has one of the country's premier computerized programs, one that provides adverse event detection and surveillance over the entire course of drug treatment. The LDS system has been a success because its pharmacists have taken on the necessary clinical interest, according to John P. Burke, FACP, chief of clinical epidemiology at LDS.

"But that's far from a widespread movement," Dr. Burke said. "I think it's just the opposite. Time constraints and budget issues are making it more and more difficult for pharmacists to work with physicians."

Another problem is practice patterns and attitudes. According to the American Society of Health-System Pharmacists, the practice of including pharmacists in rounds takes place in only slightly more than half of large teaching hospitals. In hospitals with less than 200 beds, that figure drops to less than one in 10.

"The pharmacist is the single most underused resource in the modern hospital," said Lucian L. Leape, MD, adjunct professor of health policy at the Harvard School of Public Health. Dr. Leape, who

was lead author of the JAMA study on the effectiveness of pharmacists rounding in hospitals and a member of the IOM report panel, advocates getting hospital pharmacists out of the basement and into the wards.

Dr. Leape believes the practice of pharmacists rounding with physicians could be adopted nationwide--but only if doctors worked to make rounding a team effort, rather than an individual one. "Right now, it would be very hard to implement in many places where doctors come in and out at different times," Dr. Leape said. "Since you can't have the pharmacist sitting and waiting for doctors to show up, doctors are going to have to change the way they practice somewhat."

The good news is that even some physicians who are skeptical of pharmacists' motives say they are keeping an open mind about new types of collaboration. "Successful dialogue could have us working as a team," said Dr. Brater. "The opposite scenario is each profession trying to carve out part of the other's turf, nastiness and an ultimately detrimental effect on patient care."

As they examine the possibilities, some physicians are using the same standard suggested by Mr. Shanor of the Medical Association of Georgia: Is it good medicine? "If it is, then we need to sit down and figure out how to make it work and not reject anything out of hand," he said. "But we also have to be ready to draw the line."

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## The writing is on the wall for e-prescriptions

Harried phone messages about formulary changes and dosing errors are typical in today's high-pressure medical environment. Proponents of electronic prescription systems claim that communicating with pharmacists electronically--rather than through a prescription pad and telephone--could change all that. Instead of chasing after formulary snafus, physicians and pharmacists might find more time to address patient care and to set up electronic follow-up services with patients.

The problem? Physicians have not yet embraced electronic prescribing, even though 25% of all medication errors result from illegible prescriptions, according to the Pennsylvania-based Institute for Safe Medication Practices. That is because the electronic prescription capacities that have been part of practice management software for years have impeded workflow, according to Stuart M. Weisman, ACPASIM Member, founding president and chief executive officer of ePhysician (http://ephysician.com) in Mountain View, Calif.

"Physicians are never going to take the time to boot up a PC for something they can scribble on a piece of paper," said Dr. Weisman, who was a practicing gastroenterologist for 12 years before founding ePhysician. Nor are they going to turn their back on a patient in order to stare at a computer screen.

Now, however, several factors could finally push electronic

prescribing over the top. First, advances in wireless technology make handheld devices faster and more affordable. EPhysician will begin to sell its handheld software and database services later this year, going up against a dozen competitors including iScribe (www.iscribe.com) and iMedica Corp. (www.imedica.com). Allscripts Corp. (www.allscripts.com) is the current leader in the handheld electronic prescribing market with TouchScript, a software and server application that costs each physician $250 a month. Allscripts currently has 300 practice site subscribers, representing 1,500 physicians.

Another big push for electronic prescribing is the growing demand to staunch medical errors. In the wake of last year's Institute of Medicine (IOM) report, government officials are considering requiring health plans to promote technological solutions that reduce medical errors in order to get Medicare reimbursements

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