Introduction

A Patient Safety Summit: Special report from a Harvard symposium…Ideas from inside and outside health care—what works and what doesn’t…as providers look for ways to cut down errors.

This…and more… on this edition of "Resource", a news program with the latest issues in patient safety and health care risk management. Now available online, at RMF.HARVARD.EDU. "Resource" is produced six times a year by CRICO/RMF in the Harvard medical system. Information about receiving automatic podcasts and risk management CME is at the end of this program.
Diagnosis Failures Prompted Referral Changes
By Tom A. Augello

In a medical malpractice case from the Harvard medical system, a 62-year-old man saw his new PCP for a new complaint of rectal bleeding. He had no record of screening. The rectal exam showed blood, which the PCP diagnosed as hemorrhoids. He prescribed fiber and suppositories, instructed the patient to follow up in two weeks, and referred the patient to GI for a colonoscopy.

Unfortunately, no follow-up appointment was scheduled, and the imaging never took place. About three months later, the patient called back complaining of abdominal bloating and pain. He spoke to a nurse on the phone who recommended a change in diet, but did not schedule an appointment and did not speak with the PCP. He called back again a few months later with the same complaints but did not see the PCP. About nine months after this episode began, the patient presented to the Emergency Department twice in three days with weight loss, abdominal pain, nausea, and his stool was negative for blood. He underwent surgery for an intestinal obstruction, which revealed advanced colorectal cancer.

In the Harvard medical system, the allegations most frequently raised in malpractice claims involve a wrong diagnosis or delay in diagnosis. The setting in these cases is usually outpatient.

At the patient safety summit sponsored by Harvard’s medical malpractice insurer, CRIC/RMF, in June 2009, two speakers showed how the malpractice data led a large primary care group practice to implement a change to reduce the risks. A starting point was to look at how diagnoses are missed in these cases by defining the common steps in the diagnostic process. Then the analysts determined how often each step turns up as a problem in these malpractice cases.

“One thing that we’re able to do with these diagnosis-related cases is we’re able to look at the process of care, and this is really the breakdown of what goes on when a patient presents to the office to seek care regarding a primary complaint.”

Jessica Bradley is a program director in the loss prevention and patient safety department at CRICO/RMF.

“So the patient presents with a problem. A history and physical is performed. The order of diagnostic and lab tests is performed. They perform the tests. The tests are interpreted.
The rest results are received by the patient. There is follow-up. There is referral management, and the patient is compliant with the plan.”

One of the top categories in the diagnostic process in these diagnosis-related cases was referral management. Problems with referrals turn up 20 percent of the time in a data set of 260 diagnostic-related claims over a 5-year period from 2004 to 2009.

“And referral management to us means things like they didn’t believe the referral was required. There is lack of knowledge regarding the clinical condition, that there were communication breakdowns between the patient and the provider around getting that referral. Who was responsible for scheduling it? How long you needed before you had to have that referral happen? After the referral was completed, did the information get transmitted back to the patient?”

Bradley said that one of the Harvard system’s large group practices reviewed the analysis of its malpractice data. This began a year-and-a-half project to work on its own referral management process to reduce diagnostic problems. Atrius Health includes Harvard Vanguard Medical Associates, where Dr. Rick Lopez has been a primary care provider since 1982. Now the Chief Physician Executive for all of Atrius Health, Dr. Lopez followed Bradley’s presentation at the patient safety summit.

“When we looked at that and we thought about our referrals, we have actually quite a few and that’s not unusual. We have 500 physicians, 17 locations, 350,000 patients, but each one of those referrals is an opportunity for an error. As Jessica mentioned, CRICO highlighted our need to really look at closing the loop on referrals, particularly making sure that when a referral is made that there is appropriate work done to ensure that the referral actually did happen.”

Dr. Lopez’s team analyzed the referral process at its sites, and did not like what it saw. Even though they shared the same electronic medical record, there was a lot of variability—with significant shortcomings.

“The hand-offs were not clearly defined. There were no consistent guidelines in terms of if a referral was made, how much of a follow-up should be done. And there were no standards in terms of what the referring physician needed to include in the referral and what the specialists needed to have back.”

The team turned to an obscure function within its existing electronic medical record system that was not being utilized. By activating this functionality, Atrius was able to promote a more reliable follow-up when a referral was ordered.

Of course, not all referrals are equal, so they first had to develop categories of priority that doctors chose once they ordered the referral.
“And part of the reason behind this was we felt we needed to differentiate the very routine referral from a referral that had real clinical import. You know, a referral for acne might be considered routine. If it doesn’t happen, it doesn’t happen. But referrals where there is a serious diagnostic question that is urgent, maybe not urgent on a time basis but maybe a priority like follow-up of an elevated PSA.”

Guidelines were developed, and the staff was trained to respond if the system showed a referral wasn’t scheduled or kept. Referral monitors or medical assistants see the referrals and their priority designations in a queue on a computer screen. Top priority referrals required two phone calls, a letter documented in the record, and follow-up with the PCP if the referral didn’t happen. Even low priority referrals at a minimum got a phone call.

Dr. Lopez says the rate of completion of priority referrals has steadily gone up since the project was implemented, and their goal is to reach 100 percent. He shared some of the lessons they have learned along the way.

“So the lessons learned are, you know, we had to build the case and provide context. So that’s not as you all know not always easy to do to get people to understand the importance of this and why it’s helpful. The leadership was absolutely critical, otherwise one gets drowned in the weeds. We had to make an organizational priority, and at Harvard Vanguard as I’m sure in your organizations, there are lots of priorities. And it is very hard to get initiatives through because it’s just one more thing that people have to do. I agree that we didn’t have to go out and buy this referral module. It actually comes with Epic. They built this functionality, but if you have a system, you want to optimize its use.”

Dr. Lopez answered some questions from the audience, including whether this can be accomplished without an electronic medical record.

“I think that in the absence of an EMR, I think one could conceivably do this in either a home-grown system. We actually had a home grown sort of simple database where, when referrals were made, we had our referral coordinators put that information into an access database that we could report off of. I mean, that’s sort of an intermediate between electronic medical record and a pure paper system and that was helpful. Although we did eliminate that system and shut it down once we had this fully operationalized. I think one could do analogous steps on a paper system. I think it would just be more tedious. On the other hand, in a small practice it’s probably very viable. It’s just it would be an impossibility at Harvard Vanguard.”

To the complaint that this puts all the onus on the PCP and not the specialist or the patient him or herself, Dr. Lopez sympathized. But he said the system is designed only to involve the referring PCP when a high-priority referral is overdue. He said most of the specialties and their staffs in the Atrius Health system are integrated within the sites and within the
electronic record system. So the specialty staff share the monitoring of the referrals and do the initial patient follow-up.

According to the experience of professional liability experts, patients are not reliable partners to ensure the referral is completed. The courts and juries often put the responsibility for follow-up on the physician who made the referral in the first place.
In a medical malpractice case from the Harvard medical system, a 62-year-old man saw his new PCP for a new complaint of rectal bleeding. He had no record of screening. The rectal exam showed blood, which the PCP diagnosed as hemorrhoids. He prescribed fiber and suppositories, instructed the patient to follow up in two weeks, and referred the patient to GI for a colonoscopy.

Unfortunately, no follow-up appointment was scheduled, and the imaging never took place. About three months later, the patient called back complaining of abdominal bloating and pain. He spoke to a nurse on the phone who recommended a change in diet, but did not schedule an appointment and did not speak with the PCP. He called back again a few months later with the same complaints but did not see the PCP. About nine months after this episode began, the patient presented to the Emergency Department twice in three days with weight loss, abdominal pain, nausea, and his stool was negative for blood. He underwent surgery for an intestinal obstruction, which revealed advanced colorectal cancer.

In the Harvard medical system, the allegations most frequently raised in malpractice claims involve a wrong diagnosis or delay in diagnosis. The setting in these cases is usually outpatient.

At the patient safety summit sponsored by Harvard’s medical malpractice insurer, CRICO/RMF, in June 2009, two speakers showed how the malpractice data led a large primary care group practice to implement a change to reduce the risks. A starting point was to look at how diagnoses are missed in these cases by defining the common steps in the diagnostic process. Then the analysts determined how often each step turns up as a problem in these malpractice cases.

“One thing that we’re able to do with these diagnosis-related cases is we’re able to look at the process of care, and this is really the breakdown of what goes on when a patient presents to the office to seek care regarding a primary complaint.”

Jessica Bradley is a program director in the loss prevention and patient safety department at CRICO/RMF.

“So the patient presents with a problem. A history and physical is performed. The order of diagnostic and lab tests is performed. They perform the tests. The tests are interpreted. The rest results are received by the patient. There is follow-up. There is referral management, and the patient is compliant with the plan.”
One of the top categories in the diagnostic process in these diagnosis-related cases was referral management. Problems with referrals turn up 20 percent of the time in a data set of 260 diagnostic-related claims over a 5-year period from 2004 to 2009.

“And referral management to us means things like they didn’t believe the referral was required. There is lack of knowledge regarding the clinical condition, that there were communication breakdowns between the patient and the provider around getting that referral. Who was responsible for scheduling it? How long you needed before you had to have that referral happen? After the referral was completed, did the information get transmitted back to the patient?”

Bradley said that one of the Harvard system’s large group practices reviewed the analysis of its malpractice data. This began a year-and-a-half project to work on its own referral management process to reduce diagnostic problems. Atrius Health includes Harvard Vanguard Medical Associates, where Dr. Rick Lopez has been a primary care provider since 1982. Now the Chief Physician Executive for all of Atrius Health, Dr. Lopez followed Bradley’s presentation at the patient safety summit.

“When we looked at that and we thought about our referrals, we have actually quite a few and that’s not unusual. We have 500 physicians, 17 locations, 350,000 patients, but each one of those referrals is an opportunity for an error. As Jessica mentioned, CRICO highlighted our need to really look at closing the loop on referrals, particularly making sure that when a referral is made that there is appropriate work done to ensure that the referral actually did happen.”

Dr. Lopez’s team analyzed the referral process at its sites, and did not like what it saw. Even though they shared the same electronic medical record, there was a lot of variability—with significant shortcomings.

“The hand-offs were not clearly defined. There were no consistent guidelines in terms of if a referral was made, how much of a follow-up should be done. And there were no standards in terms of what the referring physician needed to include in the referral and what the specialists needed to have back.”

The team turned to an obscure function within its existing electronic medical record system that was not being utilized. By activating this functionality, Atrius was able to promote a more reliable follow-up when a referral was ordered.

Of course, not all referrals are equal, so they first had to develop categories of priority that doctors chose once they ordered the referral.
“And part of the reason behind this was we felt we needed to differentiate the very routine referral from a referral that had real clinical import. You know, a referral for acne might be considered routine. If it doesn’t happen, it doesn’t happen. But referrals where there is a serious diagnostic question that is urgent, maybe not urgent on a time basis but maybe a priority like follow-up of an elevated PSA.”

Guidelines were developed, and the staff was trained to respond if the system showed a referral wasn’t scheduled or kept. Referral monitors or medical assistants see the referrals and their priority designations in a queue on a computer screen. Top priority referrals required two phone calls, a letter documented in the record, and follow-up with the PCP if the referral didn’t happen. Even low priority referrals at a minimum got a phone call.

Dr. Lopez says the rate of completion of priority referrals has steadily gone up since the project was implemented, and their goal is to reach 100 percent. He shared some of the lessons they have learned along the way.

“So the lessons learned are, you know, we had to build the case and provide context. So that’s not as you all know not always easy to do to get people to understand the importance of this and why it’s helpful. The leadership was absolutely critical, otherwise one gets drowned in the weeds. We had to make an organizational priority, and at Harvard Vanguard as I’m sure in your organizations, there are lots of priorities. And it is very hard to get initiatives through because it’s just one more thing that people have to do. I agree that we didn’t have to go out and buy this referral module. It actually comes with Epic. They built this functionality, but if you have a system, you want to optimize its use.”

Dr. Lopez answered some questions from the audience, including whether this can be accomplished without an electronic medical record.

“I think that in the absence of an EMR, I think one could conceivably do this in either a home-grown system. We actually had a home grown sort of simple database where, when referrals were made, we had our referral coordinators put that information into an access database that we could report off of. I mean, that’s sort of an intermediate between electronic medical record and a pure paper system and that was helpful. Although we did eliminate that system and shut it down once we had this fully operationalized. I think one could do analogous steps on a paper system. I think it would just be more tedious. On the other hand, in a small practice it’s probably very viable. It’s just it would be an impossibility at Harvard Vanguard.”

To the complaint that this puts all the onus on the PCP and not the specialist or the patient him or herself, Dr. Lopez sympathized. But he said the system is designed only to involve the referring PCP when a high-priority referral is overdue. He said most of the specialties and their staffs in the Atrius Health system are integrated within the sites and within the
electronic record system. So the specialty staff share the monitoring of the referrals and do the initial patient follow-up.

According to the experience of professional liability experts, patients are not reliable partners to ensure the referral is completed. The courts and juries often put the responsibility for follow-up on the physician who made the referral in the first place.
Think Like a Designer to Make Care Safe
By Tom A. Augello

For anyone driving change in a health care organization today, the need to make health care safer and reduce medical error is a bright, red, flashing light on the dashboard. Regulatory agencies and payors are demanding improvements. So are patients.

But health care leaders and frontline providers have learned from bitter experience that change—improvements to clinical process or quality—is painful in their industry. Doctors, nurses, and administrators have seen interventions come and interventions go…with mixed results at best. Outside industries are frequently held up for comparison. But hospitals and ambulatory care sites are unique service facilities that seem at first, and even second, blush to be a poor match for strategies that succeed in any other industry.

In the summer of 2009, Peter Coughlan took on a room of potential skeptics at a Harvard-sponsored patient safety summit in Boston. Health care providers and administrators were there to hear accounts from colleagues about what has worked and what hasn’t worked to make patient care more reliably safe. Coughlan was there to tell them why—why their intervention ideas may fail, and why they might succeed.

He is a partner at IDEO, a global consultancy with clients in diverse sectors like government, biotech, automotive, and health care. IDEO uses an approach called “Design Thinking” to help hospitals improve. Design Thinking focuses on how people interact with their environment.

Coughlan’s group helps health organizations create their own innovation processes internally by using design principles. Clients have included Brigham and Women’s Hospital in Boston improving its pre-surgery preparation and postpartum care…and Massachusetts General Hospital, which engaged IDEO for help with its ambulatory care of the future project. At the Brigham, waiting time was reduced between 11 and 31 percent in the surgery area, and satisfaction with post-partum services sky-rocketed. In addition, projects that once took up to two years to implement are completed in two months or less.

“In health care it is always a bit surprising to me that folks don’t get out much. It’s not surprising because I know how hard you work. We would be running ideation sessions and people would say ‘oh if only we had this,’ and we would say ‘but it’s already out there.’ So one of the things that we’ll do is bring our client teams out and our own design teams out to go experience other things from outside the industry and say ‘is there something you can borrow from there.’”

As Coughlan broke his talk into two sections—why your intervention will fail, and why your intervention will succeed—he described a series of obstacles to success that are
especially challenging in health care. Coughlan said that the good news is that each obstacle can be overcome, but they must be recognized first. One obstacle is a strong aversion to failure.

“And having heard some of these heart-rending stories today, I can understand why you have that relationship with failure. Failure, for you, means death or maiming, right, killing people, maiming people often and that’s horrible stuff. What we have to do when we work with our clients is say, ‘Yes, there’s that kind of failure, but there is also another kind of failure that can really be useful for you.’ We have a saying at IDEO, ‘Fail early to succeed sooner.’ First of all, getting people to use this word ‘failure’ in a hospital is a big deal, but once we do, people start to get it.”

First, failure is not allowed to hurt patients, obviously. Second, in order for failure to be acceptable in hospitals trying to improve care processes, it has to be on a small scale. This requires rapid cycles of intervention, incrementalism, and localized changes.

“It’s the small test of change, this notion of contextual experimentation and really taking ideas out in the field. Because it’s only, we say this, every time you put a prototype into the world, it takes a 90 degree change. It’s almost automatic. You say ‘I’m going for this,’ and something happens. The only way to find that out is to actually insert things into the system.”

A tool that helps start this process is rapid prototyping. Coughlan said a rapid prototype should be very, very simple and easy to put into the environment quickly to learn from its almost inevitable failure. He also said it shouldn’t cost a lot, sometimes not much more than a dollar.

“This particular prototype is something that was created by physicians and nurses at the Brigham, when we were looking at the presurgery process and realizing we actually need a new space to deal with all these processes that are running through here. Okay, so let’s just create that right away, and within an hour using some paper, color paper, the team had created this sort of idealized vision of the presurgery center. And this later went on to actually become a template for how they envision that center as they were rebuilding it.”

Direct observation of a process is another good starting point. He recalled a Chicago health facility that was looking for ways to improve the patient experience. After engaging Coughlan’s firm, the hospital happened to care for one of his colleagues, who brought a camera to him when he sought care for a broken foot.

“He put a video camera to his head and sort of recorded the proceedings. We then took the film of that, and we shared it with the physicians and the nurses and said as you’re watching the video, just make a list of the kinds of questions that you have that emerge for you, questions that you think the patients might be wanting to ask you at this point.
Well within 10 minutes, the collective group had generated 200 questions, and we all agreed that there was probably an opportunity to keep patients better informed in the process.”

Often in health care, what people do about something is just added to something else they implemented, and nothing is taken away. This is an obstacle that Coughlan identified as peculiar to hospitals…in part, because of the many isolated demands and varying lines of authority—and a culture that has become highly skilled at “work-arounds.”

“I was talking to someone in the audience yesterday, and she said you mean people don’t purge things? So I actually stole the idea from her. They do it on an every three years. They go through and they purge things that don’t work. So I upped the game a little bit. Imagine if you held a yearly purge to eliminate redundant or inefficient or broken, outdated tools and processes. So this became a part of what you did. It’s almost like spring cleaning. Let’s clean out that useless process. Let’s clean out that equipment in the storeroom that never gets used. Imagine if you could only add a new process or tool if you removed one or better yet in the beginning years if you removed two.”

Coughlan says work-arounds are so prevalent in health care that manufacturers have gotten away with very poor design. He implored the audience to stop putting up with it. Get people involved in the design itself. He pointed to Kaiser Permanente in California, which has encouraged doctors and nurses to use their natural talents as inventors.

An audience member expressed some pessimism that health care is so bad at improving processes. This gave Coughlan an opportunity to turn that around to see the natural strengths in health care for innovation once it is properly focused. He said the first reason he is optimistic is that people are extremely motivated in health care.

“A second reason is that actually you are the only people who can redesign the systems. You are the only ones who can do it. All those technologies that get put in there, they are put in by technology people out in, you know, Silicon Valley, who have never visited a hospital. Or if they have, they have done sort of the formal almost JCAHO tour of the hospital to try to understand things. If we bring a prototype into a hospital setting, it gets kicked to crap instantly because everyone know exactly how it will work, why it will work, why it won’t work, etc.

“So for those reasons, I think, you know, I’m really hopeful. And design is not a tough process. You need to come up with new ideas. How do you do that? Well, okay, go out on a field trip, right. At the Brigham we were doing some work around patient transport, so we took the group out to visit a local taxi dispatcher. They came back like we had gone to Mars or something. Taxi dispatcher has it all figured out. Just go there, and look at that. So really simple things, again it’s a question of time; it’s a question of getting
space and permission to go out and explore those things. But you are great designers, and the process is not difficult to learn.”