

**THE JOINT COMMISSION TELECONFERENCE
JANUARY 31, 2008**

CATHY BARRY-IPEMA, CHIEF COMMUNICATIONS OFFICER, THE JOINT COMMISSION:

Thank you. Welcome to The Joint Commission's first telephone conference call of 2008. I am Cathy Barry-Ipema, chief communications officer for The Joint Commission. I am very pleased to introduce our new president, Dr. Mark Chassin. Today, Dr. Chassin will discuss his perspective on the current quality and safety challenges facing the health care field and the role The Joint Commission will play in helping health care organizations meet those challenges. When his comments are concluded, we will take questions from the audience.

And now it is my pleasure to introduce Dr. Mark Chassin, president of The Joint Commission.

DR. MARK CHASSIN, PRESIDENT, THE JOINT COMMISSION: Thank you, Cathy, and welcome to all of you. I'm delighted to be able to speak with you about some of my observations about the current challenges that we face, both from The Joint Commission's standpoint as an organization with accrediting and certifying responsibilities, and as delivery system organizations. I've had the good fortune of being able to play a variety of roles in the health care system during my career. I'm from a medical family. My father is a surgeon; my mother is a nurse; my grandfather was a GP in Queens in New York for 40 years.

I practiced emergency medicine for 12 years and in a variety of other roles did research both at the Rand Corporation and elsewhere, worked in the Medicare Program, had a taste of the federal regulatory environment, and was the State Health Commissioner in New York, as many of you know, prior to joining the faculty at Mount Sinai Medical Center in New York City. I played a number of roles at Mount Sinai that I think have been particularly helpful in preparing me for The Joint Commission role that I play now. And those included direct responsibility for investigating adverse events, formulating root cause analyses, corrective action plans,

overseeing the process of collected data for the core measures, improving on core measures as well as a variety of other quality improvement activities.

So my comments about where we are with respect to safety and quality in the delivery system today are formed by those experiences as well as the ones going back some time. I've always found it helpful to think about quality problems that do harm to patients in three ways: overuse, under use and misuse. The patient safety movement has focused quite a lot on misuse on preventable complications—misuse is when we pick the right thing to do but then we don't do it so well we expose patients to the risk of preventable complications.

Public reporting has focused quite heavily on under use—on the failure to provide an effective service when it would produce a good outcome, to a lesser extent on misuse problems. I think in order to have a serious conversation about health reform, we are going to have to talk about the third general area in quality problems, which has not received a lot of attention, and that's overuse—when we pick a service to provide in circumstances when risk exceeds benefit and they can't possibly do any benefit, antibiotics for colds is a good example of that.

We clearly have serious problems in all three of these domains, and the evidence is fairly striking in that regard. I won't dwell on the specifics of that except to say that we've clearly made, as a whole health care system, substantial progress in the last several years, particularly in the measures that have become the focal point for public reporting. Both from The Joint Commission standpoint, and on the CMS website, there has been quite a substantial amount of improvement, but we still have a number of challenges, and I'll talk more about those in a moment.

It is clear to me, both from my recent experience and going back some time, that we also have to recognize that every organization throughout the continuum of care has scarce resources to devote to improvement, and with the increasing demands on health care organizations to provide information about quality, to focus on different kinds of problems, I think that we at The Joint Commission have an obligation in particular to be sure that when we ask

delivery system organizations to focus their scarce resources on complying with standards, on core measures, on National Patient Safety Goals, that we have a very high degree of confidence that improving on those measures and taking those actions will really directly improve the health of our patients. So I certainly respect the fact that these resources are scarce.

I further understand, having just recently been there, that the target that we, at The Joint Commission and other oversight organizations, ask you all to shoot at is moving. It is not a static set of tasks that we are asking the delivery system organizations to work on. Every health care organization is challenged every year with new devices, new drugs, new procedures and new bugs that come out that we have an increasingly difficult time dealing with. So I recognize that those challenges are also part of the landscape.

Having said that, I think that it's also important to reflect on the fact that, from an oversight standpoint, we've had a pretty remarkable public-private partnership, particularly with respect to the federal government, over the last 40 years really, certainly since the Medicare program was created, and The Joint Commission is part of the private side of that partnership. But there are signs that that partnership is under some strain, and I want to talk for just a few more minutes about what the sources of those strains are. I think there are two related forces that are responsible for those strains.

One is that our public stakeholders, and by that I mean broadly, not just government but also consumer organizations, patient organizations, as well as elected officials, both on the executive and legislative side, don't understand why bad things keep happening at good health care organizations—hospitals and other health care organizations—particularly the adverse events that we are all horrified at when they occur—wrong patient procedures and the ones that make headlines in your own communities. The state-of-the-art, I believe, is that we just can't prevent those events down to the level at which we would all like to see them occur, which is

pretty close to zero. But the public stakeholders don't understand that, and they're getting impatient with all of us because of that.

Related to that observation is that the public stakeholders also don't understand why routine safety processes seem to break down routinely; that is, why we can't get everybody to wash their hands when they need to wash their hands or use the alcohol-based sanitizers and other processes related to medications and all of the things that we were working so hard to improve on. Those are creating a growing level of impatience and that leads to the next observation which is our goal has to be collectively working together to figure out how to achieve major and durable improvement. In this environment, I just don't think a little bit better is going to be good enough. And that will require us to work together in some new ways.

And, in particular, I think that one of the barriers to achieving this kind of improvement is the relative lack of very robust process improvement in health care in the delivery system. Our lack of ability to execute that consistently is partly responsible for the processes that I just referred to that break down too often. And I'll talk more about that in a moment. And the other dimension, which is related but not the same, is that from the standpoint of adverse events, I think we don't yet have a good enough understanding of how we can greatly reduce the rates of those adverse events, and those two different strains of thought are related but they also have very significant differences.

When I talk about robust process improvement, I'm really talking about paying attention to some of the steps that we often skip over as we're trying to get improvement on whatever the process of care is that we're talking about trying to improve on, whether it's medication reconciliation, another part of the medication process or patient identification. In order to really make sure that we've nailed the problem, we have to understand what the causes of the problem are in our own locations. One of the observations from quality improvement that is continually mystifying is why some interventions work in some places and don't work in other places. And I think one of the answers to that conundrum is that if we don't understand exactly

what the cause of the problem is when we're trying to fix it, we may pick an intervention that's not targeted exactly to that cause.

So, for example, in the early days of some of the under-used literature we were very surprised that beta blockers were not being used as often as they should for patients who had survived a heart attack, one of the common assessments of that problem was that physician knowledge was deficient, and the physician just didn't know the literature on the subject. So the solution was physician education. Now if, in fact, it was true that lack of physician knowledge was a cause of the problem, then an effective approach to physician education might have been a good intervention, but as we continued to learn more about systems breakdowns and the failure of other parts of the system providing that particular medication to patients, we learned that there were lots of other reasons why beta blockers might not have gotten prescribed. And, if lack of physician knowledge was not a problem, then addressing beta blocker prescribing by educating physicians would not be a solution. So understanding the causes is an important dimension of robust process improvement.

And the other critical dimension is, once we've identified the cause and put an intervention in place that works, how do we make sure that when the team that made that improvement goes onto the next project, we embed that intervention into the routine work of the organization so that it keeps delivering that same benefit month after month, year after year? Very often with a special project approach we congratulate ourselves, we made some improvement, but then we don't take enough time to really be clear about how to embed that intervention, and if we look back six months later we'll see an erosion of the gains, and that leads to wasted effort and that is never good because of our scarce resources. So sustaining improvement is a critical part of that whole process.

And I think that it is important, as we think about all of the various processes that we are needing to work on, that we approach those process improvement challenges with those kinds of principles in mind. In the last month, and today is the end of my first month at The Joint

Commission, we have already started to have some discussion here about how we at The Joint Commission can take a leading role in facilitating the development and the more rapid and wide-spread adoption of very robust generalizable solutions to these problems and to facilitate the adoption of these robust process improvement tools throughout the delivery system. I expect you'll be hearing more about that in the months to come.

Now on the other subject—adverse event prevention—I think we face a different set of obstacles no less important. And one of the obstacles that we face is that the old way of thinking about how adverse events happen in health care organizations is still very, very prevalent. It's particularly prevalent among caregivers, and if we're going to make progress we need to recognize that it is the old way of thinking and that it doesn't apply so much anymore. It's a very straightforward model of how adverse events happen. You make a mistake and somebody gets hurt. A patient gets hurt directly as a result of that mistake. It was certainly the way I was taught to believe as I was trained as a physician and practiced medicine, trained to believe that adverse events happen. However, in my experience certainly and in the experience of lots of others, that is a pretty uncommon pathway today.

Hospitals, nursing homes, ambulatory facilities, and other health care organizations are much more complicated organizations than they were 15 or 20 years ago. Much more commonly today, what we see is a cascade of small errors that penetrate defenses that we've created and harm occurs only at the end of a sequence of errors—usually not two or three or four or five, but 10, 15, 20 usually very small errors—an error on a keystroke on a computer, mispronouncing a name, confusion in a handoff between caregivers about information about a patient. And it's only at the end of that sequence that patients get hurt.

Now this way of looking at adverse events has actually been developed into a formal analytical model in other parts of our society—it's called the Swiss cheese model for those of you familiar with it. Jim Reason is the inventor of it. It really is a quite powerful way to look at adverse events in health care organizations. We need to borrow more from other organizations,

called high reliability organizations that have really succeeded in reducing the rates of adverse events way below what we, unfortunately, continue to experience in health care. They do it in a pretty straightforward way, at least straightforward to say, not straightforward to do.

First of all, they don't try to make people perfect and that's something that we still have vestiges of in health care, particularly in health care training programs. Instead, what they do is they understand the kinds of small errors that people make in the jobs they're assigned, and they surround those people with very strong systems, defenses, to trap those errors before they can propagate and do harm. So, like I said, it's easy to say, much more difficult to do, particularly in health care organizations where we depend on and will continue to depend critically on people performing in an excellent manner, and that's a challenge that we face that we will need to generate new knowledge from.

The fact is, adverse events usually represent really unique sequences of errors, and when you go back and look at all of the steps along the pathway to an adverse event, one thing you can be sure of is that they will never occur exactly that way again. So we have to be mindful that when we look at adverse events, what we're looking for is the weaknesses in the defenses that failed to prevent those errors from getting through and harming patients. It's fixing the weaknesses that becomes the improvement effort that the root cause analysis identifies and the corrective action plans help us figure out how to do.

Now if you're really serious about this, you can discover many weaknesses in a single adverse event investigation. What I think we lack when I said earlier that we need to generate new knowledge, we really lack a systematic way of learning across many adverse events. Each one of these identifies weaknesses in our organizations, but we don't have a really good way of compiling all of that learning across these investigations to point out where the most important weaknesses are for us to focus on. I think The Joint Commission is uniquely positioned with its long history, of its sentinel event policy, its sentinel event database, the analyses that have flowed from that, that I think have been extraordinarily helpful in the field.

And we will, at The Joint Commission, be investing in ways of producing new knowledge from that kind of activity to foster much more effective adverse event investigation, analysis of weaknesses that are uncovered by adverse events, trying to understand which ones are the most important to fix right away and provide additional guidance to health care organizations on this really critically important area. Together with improving process improvement functions, this is one of the areas that we really have to get up to speed on much more quickly.

So let me just close with a couple of points about other future directions for The Joint Commission. I have been very impressed in learning about the organization, and I'm still learning about the organization. In the last five to six years, the dramatic improvements that have been initiated by The Joint Commission in the accreditation process have really served to focus the whole process much more sharply on crucial safety and quality problems—from the promulgation of National Patient Safety Goals to the tracer methodology and unannounced visits, which really promote the status of organizations to be continuously ready for survey. Those have been incredibly important and really revolutionary improvements.

I believe we need to continue our aggressive approach to improving both the standards and the survey process. As you all know, the Standards Improvement Initiative is well underway. We will continue with that, based on the principle that all of our standards, our National Patient Safety Goals, our core measures must have the highest degree of clinical and quality validity so that we achieve this goal of having the highest confidence that improving on these measures and complying with these standards really will result directly in improved health outcomes.

The next generation of Joint Commission activities and standards, which really is already underway, reflects what is really a remarkable and worldwide convergence on the same kinds of health care quality and safety issues that we are working on here. It really is quite remarkable that in the first year of operation, The Joint Commission's International Center on Patient Safety was designated by the World Health Organization as the only world collaborative center for

patient safety. The initial effort to get a global consensus on quality and safety problems resulted very quickly in the identification of nine specific targets—specific problems that are virtually identical to our National Patient Safety Goals. Every developed and many developing and transitional countries agreed that these were all critical problems in their systems regardless of how they're structured.

Now the bad news is that nobody has the answers to how to solve these problems effectively. But the good news is that there really is an emerging global consensus that we all have to work together to develop the effective tools, strategies and mechanisms. So I think we may see in short order, a global harnessing of investment so that it's not just us that we're depending on to solve these problems, but in fact, we can get a much wider effort that is really international on these critical quality and safety problems. And I would look forward to the ability to import some of these solutions and try them out here, as well as exporting some of our solutions to help other delivery systems around the world.

I think as we get more experience with more robust process improvement techniques, I would look toward a next generation of Joint Commission standards to incorporate the ability to assess organizations on how well they use those tools across a wide variety of clinical and patient-related processes to improve safety and quality because, as I said earlier, the target is moving. We will never be able to specify all of the problems and all of the quality and safety challenges that you all face, but increasing the capacity of organizations to deal with problems as they emerge in your own local communities is an important objective.

Let me conclude by saying that I think that together our big challenge is to work toward a time when the health care delivery system performs with the same degree of high reliability, that is, rates of adverse events and rates of safety process breakdowns that are comparable to the best high reliability industries in the world—in air travel, in nuclear power and others that have achieved those goals. I look forward to working with you to achieve that. Thanks very much.

QUESTION: Have you considered using an independent review, like a quality assurance program, for the quality improvement process?

DR. MARK CHASSIN: Thanks for that question. I do think that there are a number of different ways to beef up quality improvement programs. They certainly don't all have to be regulatory. There are a number of organizations that have principles for how to do really good robust process improvement, and that advice can be sought from a lot of different sources. The important part here is that the outcomes of those processes be demonstrated to be of the highest quality and the highest effectiveness.

QUESTION: I was just wondering if The Joint Commission would ever consider developing a library of best practices that would assist organizations in developing safer processes and systems?

DR. MARK CHASSIN: That's a great question because one of the challenges that I'm certainly familiar with when I was on the delivery system side, is trying to figure out who has tackled the problem that I'm trying to tackle, what their experiences were and whether those experiences and the specific outcomes they achieved are relevant to my situation. That is one of the aspects of the problem that we are trying to figure out how to help organizations with. As you recognize from the way you asked the question, this is not just a simple and straightforward clearinghouse catalogue kind of function. Instead, what we need to have is a way of identifying exactly what the intervention was that was tried, what target was it aiming at, and how well did it achieve its objectives. And then try to disseminate that information so that others can use it and try the same intervention if they have the same problem and the same cause of the problem that led another organization to be effective. So I'm right with you. I think that's an important need in the field.

QUESTION: We had an unannounced survey for our initial survey. If we have any other survey, will it be still unannounced?

DR. MARK CHASSIN: Yes. Our policy is that all surveys are unannounced. However, there are some exceptions. (See website for details.)

QUESTION: One quick question and it has to do with S3 and what you see as the future of S3 and how it will be used either just for performance improvement or for survey?

DR. MARK CHASSIN: Let me ask one of our staff members who is an S3 expert to answer that question.

CARRIE MAYER, ASSOCIATE DIRECTOR, ACCREDITATION SYSTEM INTEGRATION,

THE JOINT COMMISSION: S3 is a tool for you to use if you choose. It's voluntary, there's no charge for it and if you're familiar with the first tool within in it, which is the performance risk assessment, you know that it has some capabilities that show you different dashboard views, trending views and allows you to drill down and do some comparative analysis. Again, it's all intended for your purpose. It's not shared with surveyors in any way to be used for accreditation, and we will not be using it publicly or publishing it publicly. So we are committed to continually enhancing it and look forward to working with you to help us identify ways to do that.

QUESTION: You had spoken about embedding quality interventions into our daily processes and that certainly is something that is a challenge for all of us. We pick an intervention and apply it, we focus on it, apply interventions and the minute we step away it disappears. So I

was wondering if you could speak a little bit more about that, kind of how to move in that direction?

DR. MARK CHASSIN: Thank you for that question and the opportunity to embellish on my previous answer. There are some principles that seem to work in many institutions, in many different circumstances. In general, the challenge is to understand that as the intervention that you're developing proceeds, who in the organization is going to take charge of that intervention, as it is intended to continue to work in the organization—to assign that accountability early on in the process so that the unit of the organization that is going to continue to work that process is engaged in the development and the deployment of the intervention. And then at the same time, to create ways of monitoring the intervention and its results so that you can feed back continuously, or certainly at least episodically, information about how well the intervention is working.

So that it is clear and transparent to both the part of the organization that is charged with keeping it going and leadership—if it was important enough to devote scarce resources to leadership at some level, should be watching and monitoring that set of processes to make sure that it keeps on track. The other principle is to have a little instruction manual about what to do if the intervention starts to go off track; how to get it back on track; and to think about those design features when, as the intervention is being initially developed and rolled out, so that it doesn't all come as retrofitted after the fact, after the celebration when people want to move onto the next challenge.

It is probably the biggest stumbling block to continuing to realize the benefits of improvement. If we don't pay attention to that, then most of the previous effort that went into the improvement ends up being wasted, and we really can't afford that given both the magnitude of the problems we have to address and the scarce resources we have to devote to improvement.

QUESTION: I understand that S3 is only available for hospitals. Is it going to be available for critical access hospitals in the future?

CARRIE MAYER: Yes, that is the plan. The way S3 works is the priority focus process data is the backbone for that, and we just started producing priority focus process data for critical access hospitals in September of 2007. So we need to get a few quarters of data. We need to analyze the data to make sure that we're still seeing the same type of differences across different types of hospitals that make the comparative functionality statistically significant. And if all of that plays out well for the critical access hospitals, yes, we will work to get it developed for them, probably late this year or early 2009.

QUESTION: Somebody had called and asked about a library. I was asking about the same thing. People who have come up with great ideas or great performance improvements, terrific teaching tools or forms—I would like to create some type of an avenue so that information that people are willing to share can be shared.

DR. MARK CHASSIN: I agree with you, and I'll just take a second to amplify my answer to the other question. We do need to facilitate the sharing of key aspects of successful interventions. It is very difficult from published materials, brochures, presentations at meetings, to really get to the guts of what really made a successful intervention work, and that is, as I said in answer to the previous question, a significant part of the effort that we're working on here. I hope that we can get more information out on that to the field as soon as possible. I entirely agree that disseminating effective interventions and getting them more widely spread and more widely used is a very important tool for broadening the impact of improvement. We have not done a very good job, collectively as a health care delivery field, in doing that. I think The Joint Commission can be an important part of the solution.

DR. PETER ANGOOD, CHIEF PATIENT SAFETY OFFICER, THE JOINT COMMISSION: We have begun some efforts in this regard. The Joint Commission's International Center for Patient Safety has a website and within that site there is an area called Patient Safety Practices, which is a collection of links and resources, including specific tracks into our own activities as an organization, on a lot of these best practices. As well, there is already a forum with the Wiki platform, and you can look at that website, www.jointcommission.org, for The Joint Commission. And internally we've got a fair amount of discussion already underway in terms of how do we build these electronic communities so they become more interactive to share and interact on these best practices and learn from each other at the same time.

QUESTION: What is the best way to deal with competing regulatory code issues? I'll give you a couple of examples. We struggle like many hospitals, with hand hygiene, and we actually have very good compliance. As we ask our employees what are the things that would help remove any barriers, they identify things such as putting more Purell dispensers in hallways outside of rooms; adding some shelving to hold small med cups so you have a place to store things so you can sanitize your hands immediately before going into the room; install hooks outside to hold lab coats, et cetera. What we find is many of these solutions end up competing with other code violations such as fire code regulations. How would you recommend dealing with that when one set of solutions ends up creating other kinds of barriers?

DR. ROBERT WISE, VICE-PRESIDENT, DIVISION OF STANDARDS AND SURVEY

METHODS, THE JOINT COMMISSION: Actually, your question comes up quite often. To give you an example, actually hand hygiene is a good one. If you go back a couple of years ago there were specific problems around fire code and also with CMS regulations about where alcohol-based gels could be placed. Specifically, they could not be placed in hallways. What

we do is that when we see that there are these types of issues, we spend a lot of time working with those groups. So, for instance, we spent a lot of time on that one with CMS and the NFPA talking about what really made sense. Was there a fire hazard comparing it to the issue of the risks of not having people use the gels? In fact, the reason you're now able to have those gels in the hallway is, in fact, because of the extensive work that we did.

Now obviously every state may have its own laws; every location may have its own laws. Those we can't change. But when these issues come up at a national level, we're very interested in the same issues that you're interested in. We can't have a health care organization being tugged one way and being tugged another way. So when we hear about it, as much as we can we will try to fix it.

QUESTION: We were just wondering if you're looking at making any changes in how the medication reconciliation standard applies to outpatient ambulatory surgery centers? We're having a hard time figuring out how to meet that regulation with our patient population.

DR. PETER ANGOOD: This is Peter Angood, chief patient safety officer for The Joint Commission. Medication reconciliation is clearly a difficult Goal to implement. We did hold a summit in September on this. We had about 60 different organizations attend that summit, and we received a large amount of feedback on how to refine and clarify the goal. That revision is already up on our website in our annual Patient Safety Goal field review. You can get to that field review off the main website, and essentially the medication reconciliation Goal has been completely re-written, and there is a specific section related to your area that you were questioning.

QUESTION: I was very excited when the mandatory accreditation had been implemented and also the push from the competitive bidding situation with durable medical equipment and the

rush of people signing up to get accredited so they can have access to the competitive bid. The disappointment is that there's a wide variance of these organizations that were chosen to accredit these companies. Our company has been Joint Commission-accredited for 10 years, and I feel like that it has been the one positive thing that we did to get started on the right foot, to have an organization that is about excellence and performance improvement and quality.

I'm very disappointed and I wonder what your feelings are about the differences between The Joint Commission standards and accreditation process and other accrediting organizations. Do you think these other accrediting bodies have diluted the accreditation process?

Dr. PAUL SCHYVE, SENIOR VICE-PRESIDENT, THE JOINT COMMISSION: We have, for some years, taken the position that competition among accreditors drives each of us to be better. I would say that it has driven The Joint Commission to be better. Some of the things that Dr. Chassin mentioned that we've done in recent years that are focused on excellence—not only in what a health care organization does but also on what we do—came in part because we realized that there were others who were going to be out there seeking to accredit organizations. So from that point of view it's helpful.

On the other hand, we also recognize exactly what you're saying, that there are times when there are those who seek it for the purpose of maintaining their government approval or payment approval. We certainly believe that we are the Gold Seal in terms of accreditation. So I thank you for the comments you've made about the help that it's provided to your organization.

DR. MARK CHASSIN: I think with this process, which is relatively new, we might see a shake out of accreditors. We don't plan on deluding or backing off the degree of excellence in our accreditation process, but I would expect that, as the process that you're engaged in goes forward, that others that have perhaps tried to qualify on the basis of less than Gold Seal standards and approaches, will likely fall by the wayside.

QUESTION: Are you going to be changing how you do the large complex organizations, the survey and the scoring of the RFIs since we're a large multi-site organization? Or where is that project?

GAIL WEINBERGER, DIRECTOR, ACCREDITATION AND CERTIFICATION POLICY/

ADMINISTRATION, THE JOINT COMMISSION: Actually, there's going to be a whole new scoring and decision process implemented over the next year or so that will address a lot of the issues that we've heard over the last several years regarding complex organizations and the number of RFIs and thresholds.

QUESTION: Hi. When I'm thinking about our process improvement program and making it more robust, I go back to some basics—the five rights of medication administration. What usually falls short there is if there's an error that's made, if somebody doesn't do it each and every time, somewhere down the line they're going to have an error. And so monitoring for compliance with that is real challenging to do and make it right and not focus on the individual. That is where I see the big challenge.

DR. MARK CHASSIN: I agree with you. It is challenging to understand what the role of systems and defenses are and how to assess what kinds of mistakes that people make are the kinds of mistakes that anybody in that situation would have made and, therefore, really shouldn't be the starting process of a disciplinary procedure. Every adverse event analysis has to also have an assessment of the errors that are uncovered in a particular event, so that errors that really should be dealt with through a disciplinary process are referred appropriately. But there are some pretty specific ways to try to figure out what errors should be referred for disciplining and which ones shouldn't.

The kinds of errors that shouldn't be referred for disciplinary process are the ones that anybody in the same situation would have made, and that's one of the questions you can use to try to assess errors and whether they should be referred for discipline. But if the error is small and is of the kind that most people at the same level of training would have been likely to make in the same situation, then that's the time to look at the systems that surround those people and the processes that you have in place to trap those errors through double checks, automated processes that help get people through those routines, and all the other tools that we have to try to make sure that the defenses that surround people are strong and prevent errors from propagating.

QUESTION: We are constantly putting safety nets in place to prevent the error from occurring, but they still seem to happen. How do you make performance improvement more robust? A more specific example would be helpful with this.

DR. MARK CHASSIN: Let me describe some of the broader approaches that are available when looking in more detail at specific processes. So, for example, lean methods of examining how many steps there are in a medication process and which ones could be removed to make the process simple and less prone to error. So instead of only focusing on the event that you have in front of you, look at adopting a more systems approach to understanding how to evaluate processes so that you can make them simpler and less prone to error.

CATHY BARRY-IPEMA: I'd like to thank everyone for participating in today's call. We hope it was of value to you. You will all receive an e-mail with a toll-free number that you can call to hear a playback of today's call. In addition, a written transcript will be posted to the Internet and to the extranet within the next few weeks. We are in the process of firming our dates for the 2008 telephone conference call series. A complete list of those calls will be posted on your

extranet site as they are scheduled. Registration will be e-mailed to you and posted to your site approximately one week prior to each call. Thank you.