ECRI's 2016 Top 10 Patient Safety Concerns for Healthcare Organizations:
An Interview with Stephanie Uses, PharmD, MJ, JD, Patient Safety Analyst, ECRI Institute

Michael Wong

Hi, this a podcast from the Physician-Patient Alliance for Health and Safety on ECRI's 2016 Top 10 Patient Safety Concerns for Healthcare Organizations.

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I'm Michael Wong, founder and executive director of PPAHS. And, today with me from ECRI is Stephanie Uses, patient safety analyst, and I also have with me Lynn Razzano who is a clinical nurse consultant at PPAHS.

Thank you so much for joining Lynn and I today to discuss ECRI's patient safety concerns, Stephanie.

Stephanie Uses

Thank you for having me, Michael.

Michael

It's great to have you on. Now, ECRI recently released the top 10 patient safety concerns for health care organizations. How are the top 10 patient safety concerns selected by ECRI?

Stephanie

Well, Michael, we looked at various sources, ECRI Institute, the PSO component. At the end of 2015, we had more than 1.2 million event reports submitted to the ECRI Institute PSO.
So, of course, we had a good number of events in there. We also looked at different things submitted to us from our PSO clients. They submit root cause analysis, so it's easy to look at

the topics to see which ones were submitted, what are some of the most common root causes that are submitted to us.

And also, we do something called research requests. So it's a member hospital, they'll come in with questions for us related to different topics. So opioids, that's always one of the topics that we see quite often coming in.

We also look at different newsletters that we put out, alerts from our healthcare risk control group. We look at those to see what goes out. So that's the information that we look up from our sources from our members, so we also have a lot of employees here with a variety of experiences. We have professionals assist in clinical patient safety, we have health technology professionals and also investigation professionals. So, we look for their input and also from our external ECRI Institute PSO Advisory Board.

Michael

Now, one of your top ten concerns is inadequate monitoring for respiratory depression in patients receiving opioids, a topic which has ever since the inception of PPAHS has been one of our key initiatives.

Now, inadequate monitoring was identified on your report as having a risk map of 80, which is the highest rating among top ECRI concerns. What does the score mean for clinicians and their patients, and how is it made up?

Stephanie

Well, let's start with how the score has arrived at. It's a multiplication of two different factors, both of the scores are on a scale of one to ten.

What we're going to look at is the patient harm, so what the potential of harm is to the patient. And then from there, we also multiply that by the likelihood of this event occurring, and both of which are on a scale of one to ten.

So the score is going to show that the events are (1) likely to occur, and (2) that they have the ability to cause harm.

One of the reasons why it's going to be likely to occur is because opioids are frequently prescribed in patients. Patients come in with anything from pneumonia to broken hips. Post-op patients, they may be prescribed opioids. And you may not know what dose the patient will tolerate when they come into the hospital. So if somebody is not going to tolerate the dosages of opioids that are prescribed, they're going to be at an increased risk of harm.

Michael

Yes, there certainly is this problem of knowing exactly how much an opioid amount a specific patient can take. I know, Lynn, you could probably speak to that quite a bit, can't you?

Lynn Razzano

Yes, and clearly, we need to consider opioid naive patients, our pre-surgical or pre-intervention screening of the patients to determine if they will be at a higher risk for respiratory depression when receiving opioids.

Stephanie

In addition to the risks of being opioid naive, but especially in the surgery patients, the patients who have undiagnosed sleep apnea. And they're going to be at increased risk for respiratory depression also.

Lynn

Absolutely, that's a great point, Stephanie. So why does ECRI think clinical monitoring of patients receiving opioids will reduce the patient risk in terms of preventing harm related to the use of opioids?

Stephanie

I mean that's pretty short answer on that. Studies have shown and practice has shown that monitoring can lead to early recognition of respiratory depression. And with the early recognition of respiratory depression, it's reversible when recognized at an early stage. It's when patients have continued hypoxia that they're going to be running into problems. But, if we catch them early, hopefully we can reverse them.

Michael

So it's that continuous monitoring piece that is able to detect it, right Stephanie? As opposed to, and obviously, in favor of nurses, nurses going around as much as they can to see patients, but the reality is they can't. So, this continuing monitoring ensures that some kind of monitoring is being used on the patient at all times.

Stephanie

Well, the continuous monitoring is helpful, but sometimes the continuous monitoring isn't going to be available for all of the patients at the facility. I think continuous monitoring, it's been out in the literature lately, but it is still, I guess, fairly new. Some places just don't have the resources for continuous monitoring on all patients.

Michael

Are there patients then that you would recommend or have placed on monitoring if institutions can't monitor all the patients?

Stephanie

I know with the recommendations that are coming out from the facilities, it's going to be post-operative patients who are receiving IV opioids. Also, patients who are on PCA, patient-controlled analgesia, they're one of the higher candidates who will receive the continuous monitoring, especially if they're on a continuous PCA dose.

Lynn

And that would include oncology patients hospitalized and receiving their treatment or coming in for a medical condition?

Stephanie

Correct.

Lynn

That requires intervention?

Stephanie

Yes, for the hospice patients, they may not be on PCA, but they can be on continuous opioid infusions, which is another high risk population for respiratory depression.

Lynn

Excellent point. More and more professional societies are issuing guidelines supporting the increased use of capnography for patient monitoring. In January '15, the Association of periOperative Registered Nurses (AORN) released a moderate sedation guideline update saying that the perioperative nurse should monitor exhaled CO2 (end-tidal CO2) by capnography in addition to SP02 by pulse proximity during moderate sedation analgesia procedures. This was also identified in January 2015 by the Association for Radiologic and Imaging Nursing stating that it endorses the routine use of capnography for all patients who receive moderate sedation analgesia during procedures in the imaging environment. What is your perspective on this, particularly as this relates to ECRI's concerns regarding respiratory depression related to opioids?

Stephanie

Well, for that topic, I'm going to refer to one of our other publications. ECRI Institute also puts out the Top Ten Health Technology Hazards. And in the report that was just released from our health devices group, they also list the failure to effectively monitor post-operative patients for opioid-induced respiratory depression as an issue on their list. It's number three on their top ten.

Throughout the section, we refer to the Anesthesia Patient Safety Foundation's recommendations and we're looking at their essential monitoring strategies to detect clinically significant drug induced respiratory depression in the post-operative period. Their recommendations are similar to the ones that you had listed. They're looking to consider continuous electronic monitoring with O2 saturation for non-ambulatory patients receiving opioids for acute operative pain for patients being cared for in the health care facility. So, we're going along with their guidelines, also, which mimic pretty much the two agencies that you just spoke of.

Michael

Should **not** using monitoring on patients using opioids be considered a medical error, or perhaps a never event, or put another way, should the use of continuous monitoring be a standard of care, Stephanie?

Stephanie

I guess as I referred to a little bit earlier, for some facilities an issue is going to be limited resources. All facilities may not have access to continued monitoring. This issue is recognized in the Anesthesia Patient Safety Foundation's recommendations and they have the implementation of continuous monitoring, it may be a gradual process. The facilities that are just starting to adopt it [continuous monitoring] are focusing on high risk patients. Stratify the risk of your patients and start with the patients that are most at risk for respiratory depression.

Michael

Yeah, so ideally, everyone should be monitored, but the reality is that there are resource constraints that would require us to risk stratify.

Stephanie

Yes.

Michael

And make sure the highest risk patients are monitored.

Lynn

Just one comment Stephanie. Do you think for those institutions that don't have the availability of continuous electronic monitoring for all their patients receiving opioids in high risk - do you think a step down unit or a higher level of acuity monitoring by professional nurses is in order in that case?

Stephanie

Again, you would have to look at the patient population. What their risk factors are, and base it on there. Even if there is monitoring available - if electronic monitoring, such as capnography, is available for those patients - they're going to still require a higher level of care. You still need that nurse, you still need that person in there who can evaluate the patient.

Lynn

Excellent point. Stephanie, what are the obstacles or barriers or challenges for the universal use of monitoring particularly in high risk patients for respiratory depression?

Stephanie

The main obstacle right now is resources and the availability of the resources in the facilities.

Lynn

Would electronic alerts built into the electronic health record for continuous monitoring when opioids are prescribed significantly decrease opioid related harm?

Stephanie

If available, if the facility does have access to the continuous monitoring that would assist, because you can put the notes in there for which patients should require it, maybe it's going to be your post-op patients who are prescribed the IV opioids, or the patients who are on the patient controlled analgesia. It's the reminder for the physician to order the continuous monitoring.

But if facilities don't have the continuous monitoring but they do have electronic records, Joint Commission in their safe use of opioids recommends alerts in the computer system just on dosing limits or just alerts that the patient is on an opioid and needing increased monitoring.

Lynn

That's an excellent point to what The Joint Commission recommendations are, in particular 2016 National Patient Safety Goals for alarm management protocols. In the ECRI brief, you say that opioid safety should be a nurse driven protocol. Why do you believe that it should be nurse driven?

Stephanie

Like I said before respiratory depression can be reversed when recognized early. But if not, patients can sustain brain Injury from apnea or hypoventilation. And events we've had reported to ECRI Institute PSO include event reports stating that the patients were having adverse

effects from opioids, and there were delays in reaching a physician to prescribe the reversal agent.

Lynn

That's an excellent point. So it would be a nurse-driven protocol/standing order that a nurse could initiate?

Stephanie

Correct. And with the nurse driven protocol, I'm going to give the reversal agent and be done. I'm going to give the reversal agent. I'm going to call the physician who will then come and evaluate the patient. Why did this happen? Should we lower the dose for the patient? Are they getting too much opioid?

Stephanie

Even after you call a rapid response, by the time the team gets there, the reversal agent could be administered.

Lynn

Exactly, excellent point. In addition to the use of continuous monitoring, what tools do you think nurses should have to help ensure the safety of the patients receiving opioids? Do we need improved training or education for nurses and improved sedation skills that's validated and user friendly?

Stephanie

Facilities need to have sedation scale in place. And, not only have it in place, they need to educate the nursing staff - how to use the scale, what does the scale mean, what am I looking for in the patient? But, one thing to remember is increased educational programs and opportunities for nurses that would assist with reducing the occurrence of respiratory depression. But, it's not just the nurses who need an increase in training. Here in Pennsylvania, the Pennsylvania Patient Safety Authority conducted what they called it an opioid knowledge assessment test and that was back three years ago in 2013. And we had close to, here in the state, almost 1800 practitioners completing the assessment, and that included nurses physicians, pharmacists, nurse practitioners.

Lynn

Respiratory therapists?

Stephanie

Yes, and I don't remember if respiratory therapists were on there, I would have to look again, but there were physician assistants and nurse practitioners on there also. And, on there, they recommended staff training on how to assess patients for adverse reactions, how to recognize advancing sedation. And, it wasn't just a gap in the nurses' knowledge. It was gaps in all of the health care professional's knowledge of opioids.

Lynn

That's excellent. And I definitely agree with that concept. It's not the nurses, but the entire health care team. It's the health care team that surrounds the patient, care of the patient all through hospitalization. And it is the team of care. So, that's an excellent point.

Michael

Now, I think we've all heard in the news a lot of talk about opioid overdose, misuse, abuse, diversion, particularly the death of Prince and possible overdose that he might have had before his death. Now, the CDC says that there's an opioid epidemic and recently issued guidelines for providing opioids for chronic pain. What do you think prescribers can do to ensure their patients are receiving the opioids they need while at the same time helping to reduce misuse, abuse, and diversion?

Stephanie

I think one thing out there is awareness. The guidelines, they just came out last month, so some physicians, other health care practitioners, they're going need to become more familiar with them. One of the main things through the report, it says you need to know the patients and their history. It's not just coming in for my visit this month and I'm going to write you a script. You need to look at the guidelines. They have recommendations on determining which to initiate or when to continue opioids for chronic pain. Also review the patient's therapy, like I said, on a routine basis - Are they getting better? Is it helping them? Is the therapy working and are they experiencing any side effects from the therapy? Last, look at the risks and the benefits of the treatment, and then decide whether or not to continue the patient's therapy. Talk to the patient, talk to your patients about the possible side effects. A lot of time they think I'm going to take a pill and I'm going to get better. And hopefully that works, but there are risks with taking that pill, and you want to make sure that it's best for the patient.

I think one of the other recommendations that come from the guidelines, it comes with the acute pain use. For the initiation of acute pain, the guideline specifically state to give the lowest effective dose in immediate release formulation, and a limited supply, three days. More than seven days is rarely going to be needed. I've been practicing for over 20 years as a pharmacist, and it's not unusual to see patients come in post-op or even post-dental procedure for 30 or 60 doses of an opioid. That therapy can be seven to ten days, so do they really need that?

I had surgery, this was about ten years ago, that didn't require any pain med post op. Discharged the next day, I was offered a prescription for 30 tablets of an opioid. It's like, I don't need it. I don't want it. But, I think a lot of times the first thing for acute pain is "I'm going to write you an opioid and it's going to make you better."

Lynn

Right.

Michael

Sure, you're absolutely right. You could have had no opioid days as a prescription, or more appropriately you should have had seven days, as opposed to having another 30 days or so of supply in your cabinet which could have ultimately reached someone it shouldn't have reached. So great point.

Stephanie

Right, and just like you had said about the cabinet, reaching it where it shouldn't, other people will have access to it then, and that's one of the important things when you see the commercials and the public service announcements. You need to tell your patients how to dispose of them. Don't just leave them in the cabinet. The DEA take back days or a lot of police stations now have drop-off bins. Get them out of the house.

Michael

But that decision should have been made, as you say, Stephanie, at the beginning, when you were prescribed the opioids. How much did you really need? Did you really need it? Was it appropriate, and then how much do you really need to manage your pain?

Lynn

And I think, Stephanie, recalling what you mentioned about that we should take a good retrospective history of what has worked for the particular patient - How has his pain been controlled in the past? Does ice work for him? Does heat work for him? Does relaxation techniques or listening to music via headset work for him? And embody that in the care plan of the patient even facing surgery.

Michael

So Stephanie, thank you so much for this great discussion. I know Lynn and I really, really appreciate your thoughts on patient safety and what prescribers, doctors, nurses, and others that are working in this area can do to help their patients and improve safety. Thank you so much.

Stephanie

Thank you.

Lynn

Thank you, Stephanie.

Michael

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