# Long-Term Care Survey Alert

## QUALITY IMPROVEMENT: Head Off These Medication Safety Problems Before They Cause Serious Harm

Take steps to prevent bacterial contamination from common equipment and procedures.

Reducing adverse drug events requires your facility to head off problems at the get-go. And to get the biggest bang for your efforts, you might want to consider the so-called "80/20 rule."

That means you go after the 20 percent of scenarios that comprise about 80 percent of adverse drug events, suggests **Barbara Zarowitz, PharmD, CGP, BCPS,** in a presentation at the March 2009 annual American Medical Directors Association meeting. For example, simple error-proofing strategies include keeping parenteral potassium out of the facility's emergency kit, said Zarowitz, chief clinical officer at Omnicare. Also, make sure you never store heparin solutions near saline solutions. "Think of the number of times a nurse might very quickly pick up a vial and inject what they believe to be a saline flush that's really a full dose of heparin instead."

Flag Medications With Black Box Warnings

The list includes common medications, such as warfarin and NSAIDs (see the list on page 84 for a number of additional medications). Surveyors are citing facilities that don't have a clear strategy to deal with medications with boxed warnings, Zarowitz cautioned.

For example, erythroid-stimulating agents (ESAs) have a black box warning. In a nutshell, the warning talks about increased risk of death and thromboembolitic events (heart attack, stroke, etc.) when ESAs are given to patients with a hemoglobin greater than 12 g/dL, noted Zarowitz in her presentation. You should use the lowest dose required to avoid red blood cell transfusions. And use ESA agents only to treat anemia associated with concomitant use of myelosupressive chemotherapy, she advised.

Safety actions: To optimize ESA safety, Omnicare pharmacists verify that the patient has an appropriate diagnosis for receiving an ESA agent -- and that the patient's baseline hemoglobin is less than 12 g/dL.

When Omnicare implemented this safety check, the pharmacists found that many patients on ESAs had hemoglobins of 14, 15, and 16, meaning they may not have needed the ESA. In other cases, patients needed a much lower dose, said Zarowitz. The facility should monitor the patient's hemoglobin twice weekly for the first six weeks of ESA therapy and then monthly once the person has stabilized at the desired hemoglobin concentration, Zarowitz advised.

The Omnicare pharmacists also check that the starting dose for an ESA is weight-based. And they nail down when the patient received her last ESA dose in the hospital to determine when to schedule the first dose in the facility.

Beware: The nephrologist or oncologist may "front load" the ESA regimen in order to get the patient out of the hospital a day sooner, observed Zarowitz. Then when the patient comes to the SNF on a large dose, which is actually the loading dose, the physician may mistakenly continue that dose moving forward. Also take extra care with methotrexate, as dosages can vary considerably based on whether it's prescribed for cancer as opposed to rheumatoid arthritis, for example. Zarowitz, who works at Omnicare, noted that pharmacists there verify the indication for methotrexate with the prescriber, if it's omitted. And they verify the accuracy of any dosing frequency other than a weekly schedule or any weekly dose exceeding 20 mg.

Safety tip: Don't allow physicians or nurses to use MTX as an abbreviation for methotrexate, Zarowitz cautioned. Also be aware that methotrexate has been confused with metolazone and mitoxantrone.

3 More Strategies Can Prevent Disastrous Outcomes

Consider these additional ways to keep medications from causing significant harm or worse:

Strategy 1: Avoid opioid overdosing. Zarowitz advised routinely double-checking opioid orders. For example, question any order of morphine greater than 30 mg. That doesn't mean there can't be a greater dose -- "it means that's time for caution," she said. Also, question any significant  dose over what was prescribed previously. (Zarowitz also suggested questioning certain dosages of other medications -- for example, greater than 6 mg of warfarin, more than 0.125 mg of levothyroxine, and more than 100 mg of metoprolol.)

Tip: Beware administering fentanyl patches to residents who are opioid naïve. A lot of surgeons order the patches because they are easy to use, cautions **Albert Barber, PharmD,** with Golden Living in Fort Smith, Ark. "But we have seen people with no tolerance to opioids use the patches and fall or worse," he cautions. "The fentanyl patches should be reserved for people who for some reason can't swallow pills but have been on other opioid medications, so you are transferring them to fentanyl," he instructs.

Strategy 2: Clarify medication orders that leave any room to assume. Suppose a patient was getting 3 mg of warfarin a day seven days a week once each day, Zarowitz said. His INR is slightly low and the physician wants to increase it. So the physician writes an order to increase warfarin to 4 mg. But the order doesn't provide enough information, she cautioned.

Strategy 3: Reduce the number of medications when appropriate. "The more meds you pass over a given period of time, the more errors are going to occur -- it's just that simple," said **Eric G. Tangalos, MD,** professor of medicine at Mayo Clinic in Rochester, who co-presented with Zarowitz at the AMDA meeting.

Prevent F329 tags: Mock surveyors doing med pass reviews at Presbyterian Health Services (PHS) of New Jersey flag residents receiving three medications in the same category, reported nurse **Judith Porter,** in a presentation at the fall 2008 American Association of Homes & Services for the Aging annual meeting. Then the surveyor checks the resident's chart to make sure documentation indicates why the medications are required, said Porter, director of health services for PHS.