

Long-Term Care Survey Alert

Risk Management: Get the Scoop on Grapefruit Juice and Meds

A PharmD explains what you need to know.

In a presentation at the March 2011 American Medical Directors Association annual meeting, **Thomas Lynch, PharmD, BCPS**, said that he considers grapefruit juice a drug.

Reasoning: Grapefruit juice "acts at the level of the intestine," which is lined with Cytochrome P450 3A4 enzymes, Lynch said. These 3A4 enzymes "are actually our first line of defense against toxins and drugs -- it's evolved that way," he relayed. And "if you give grapefruit juice, it blocks that enzyme, and so drugs that it normally won't let in, it lets in."

"Generally drugs that require 3A4 for metabolism have a low bioavailability," Lynch noted. "For instance, Zocor has like a 5 percent bioavailability. The reason for that is 95 percent of it is kicked out by the 3A4 enzyme -- it doesn't even allow it to be absorbed into the liver. But you block that [enzyme] and all of a sudden you've eliminated that block. That's what grapefruit juice does."

Plus: "You have to remove the grapefruit juice and wait for more enzyme to be produced," Lynch said. "So it's going to take a while. In other words, it's not one of these things where you say wait two hours" before giving the medication. "It's an irreversible effect. You can have [drug] levels' increased two-fold, three-fold or more."

Bottom line: "Elderly people on multiple drugs -- more likely drugs that require 3A4 for metabolism -- they should just avoid grapefruit juice," Lynch emphasized.