Environment, health, and safety

The drive to improve syringe safety and labeling

By Nancy L. Hughes, MS, RN

One of the most valuable and commonly used treatment devices in healthcare settings—the syringe—also holds the potential for causing tremendous harm. During the last decade, the healthcare community and industry have focused much attention on syringes in an effort to reduce needlestick injuries. Significant strides have been made, thanks to product innovation, legislation that mandates the use of safety syringes, training programs, and awareness campaigns such as ANA's "Safe Needles Save Lives" initiative.

Of course, more work needs to be done. Meanwhile, the needlestick dilemma appears to be just the tip of the iceberg. As the industry explores the overwhelming challenge of reducing medication errors, the syringe again enters the spotlight—this time related to medication labeling.

In 2007, the Institute of Medicine concluded that at least 1.5 million preventable adverse drug events occur in the United States annually. The consequences to both patient outcomes and the bottom line are enormous; the estimated cost to hospitals alone is $3.5 billion. In a related action, the Joint Commission is moving toward mandated labeling; one of the 2008 National Patient Safety Goals is to label all medications and medication containers, including syringes. (Joint Commission Resources recently published a helpful book on the topic, *The Nurse's Role in Medication Safety*.)

Medication errors are of great professional and personal concern to registered nurses (RNs). In the 2007 Study of Injectable Medication Errors developed and cosponsored by ANA and Inviro Medical Devices, 97% of nurses surveyed said they worry about such errors. This independent nationwide study polled a statistically significant sample of RNs to capture their opinions, concerns, and experiences about challenges related to medication administration, syringe labeling, and other health and safety viewpoints. Because RNs administer many injections, their actions are a crucial factor in a complex process that determines whether a patient receives the right medication. Of the survey respondents, 86% said they believe syringe labeling can reduce medication errors. Their responses indicated a range of current labeling practices, including writing on a piece of tape, applying a self-adhesive label, or writing directly on the syringe itself.

Some concerns related to syringe labeling center on the functional difficulties caused by labels. For example, labels may cover gradations on the syringe barrel; syringes may lack a suitable label; labels may impair the RN's ability to check the dose and compare it to the order; labels make the syringe difficult to handle; the label may detach from the syringe; and the label may create difficulties if the syringe is used to administer the medication I.V.

Recognizing the value and accuracy of the information provided by the RN study participants, the researchers also asked them for ideas on how to remedy the problem. The leading response was to improve the syringe by including a write-on stripe. One manufacturer has done just that, adding a write-on stripe to syringes that won't interfere with the labeling.

As the issue of medication errors continues to undergo scrutiny, 95% of the RNs surveyed said they believe the design of the safety syringe must be improved. Manufacturer innovation is a vital part of the solution. Historically, front-line RNs have been an accurate source for identifying issues affecting the healthcare workplace and quality of patient care. That's why it's so important that RNs be actively involved in product innovation and serve as partners or leaders in the process to reduce and eliminate workplace hazards—by identifying and seeking solutions to issues that can affect the well-being of both the healthcare worker and patient.

For additional information about the 2007 Study of Injectable Medication Errors, visit www.nursingworld.org. ✯

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