Wolters Kluwer

Clinical Drug Information

Smart Content and Technology Helps Healthcare Professionals Reduce Medication Errors and Enhance Patient Safety

What would you do if a disease outbreak was killing 2,000 patients a week?

Would you work to find a cure? Would you apply all your medical knowledge and compassion to help treat patients? Or perhaps introduce safer practices to reduce the risk and numbers affected?

More than
2 million
adverse drug events
occur annually,
causing or contributing to
more than 124,000 deaths a year
in the United States.

Adverse drug events
cost the healthcare system
over
$16 billion
USD annually

Many healthcare professionals don't realize that there IS such an epidemic spreading through hospitals across the world. It's just not the kind of "disease" you might expect!

Every year, medication errors pose a significant risk to patients receiving treatment in American hospitals. According to the U.S. Centers for Disease Control and Prevention (CDC), medical errors are the third most common cause of death in the United States, claiming over 250,000 lives in 2013. A significant number of these are drug-related errors, including inappropriate therapies, adverse drug events, and dosing problems. The U.S. Food and Drug Administration (FDA) reports more than 2 million adverse drug events occur annually, causing or contributing to ***more than 124,000 deaths a year*** in the United States – or more than 2,000 a week – costing the healthcare system ***over $16 billion USD***! Drug errors are the fourth leading cause of death in the U.S., according to the FDA, exceeding pulmonary disease, diabetes, AIDS, pneumonia, accidents, and automobile deaths.

Continues on the next page

Drug errors are the **fourth leading cause of death** in the U.S., exceeding pulmonary disease, diabetes, AIDS, pneumonia, accidents, and automobile deaths.

These statistics are particularly concerning when viewed in the context of the amount of time and money that the United States is already spending on initiatives and technology intended to help healthcare professionals reduce errors and enhance care. The magnitude of the risk is even greater in countries that do not have access to advanced training, tools, and funding.

"A reasonable estimate is that around 30 to 50 people in every 1,000 hospital admissions experience an adverse event related to a medication,"

Mark Bonfiglio, PharmD,
Vice President of Content Operations
Wolters Kluwer Clinical Drug Information

The Problem

Medication errors can occur at several stages of the treatment process: At the time of prescribing, order entry, dispensing, administration, or when the professional is counseling a patient about how to use their medication. At any of these stages, there is the potential for a professional to make a mistake that could jeopardize therapeutic effectiveness or impact patient safety.

According to a presentation by the Network for Excellence in Healthcare Innovation (NEHI), preventable medication errors in the United States can be broken down as follows:

- Dosing errors: **37%**
- Drug allergies and interactions: **11%**
- Dispensing errors: approximately **100 every day**

"A reasonable estimate is that around 30 to 50 people in every 1,000 hospital admissions experience an adverse event related to a medication," explains Mark Bonfiglio, PharmD, vice president of content operations for Wolters Kluwer Clinical Drug Information. "These are people who presumably went into the hospital hoping for a positive outcome, but who instead had a negative experience. In a significant number of these cases, the outcome is a loss of life. In the mind of a healthcare provider, who is sworn to 'do no harm,' this is a number which is simply intolerable."

Healthcare is a fast-paced, high-pressure work environment, Bonfiglio says. There is an "urgency" to providing competent care that must be reconciled with the pressure to keep up with the workload. "It can be challenging to acquire and process relevant information" to maximize patient benefits while minimizing patient risks.

Healthcare providers, for the most part, have appropriate training and dedication to meet these therapeutic goals when prescribing drugs. But medication information is constantly evolving, Bonfiglio notes, and it can be hard for professionals to keep up. "Without access to current information and the support of automated screening tools, there is a potential 'gap' in a professional's ability to optimize the safe use of medications."

'Secondary Impacts'

While the primary concern with medication errors is the risk that they pose to patients, there are also what Bonfiglio calls "secondary impacts" on hospitals, health systems, and healthcare workers.

"Healthcare workers are generally altruistic people who want to alleviate suffering and enhance patient outcomes," he says. "To be involved in a medication error undermines the entire motivation of (a professional's) work. These events may have horrible impacts on patients. But it can also be devastating to the individuals who provide care."

"To be involved in a medication error undermines the entire motivation of (a professional's) work. These events may have horrible impacts on patients. But it can also be devastating to the individuals who provide care."

Mark Bonfiglio, PharmD,
Vice President of Content Operations
Wolters Kluwer Clinical Drug Information

The institutions that employ healthcare professionals also face a loss of reputation and patient confidence in their communities, and that can adversely affect the institution's overall mission, Bonfiglio adds.

At the same time, the financial consequences of medication errors can have a devastating impact on a healthcare institution. The cost of corrective therapies, additional tests, new medications, and hospital readmissions needed to address medication errors are all expenses that could have been avoided had the initial error been prevented. The time needed to treat adverse events and readmissions puts additional strain on a clinical staff that may already be stretched thin, draws on resources that may already be in short supply, and creates even lengthier triage and wait time for patients in less urgent circumstances.

Continues on the next page

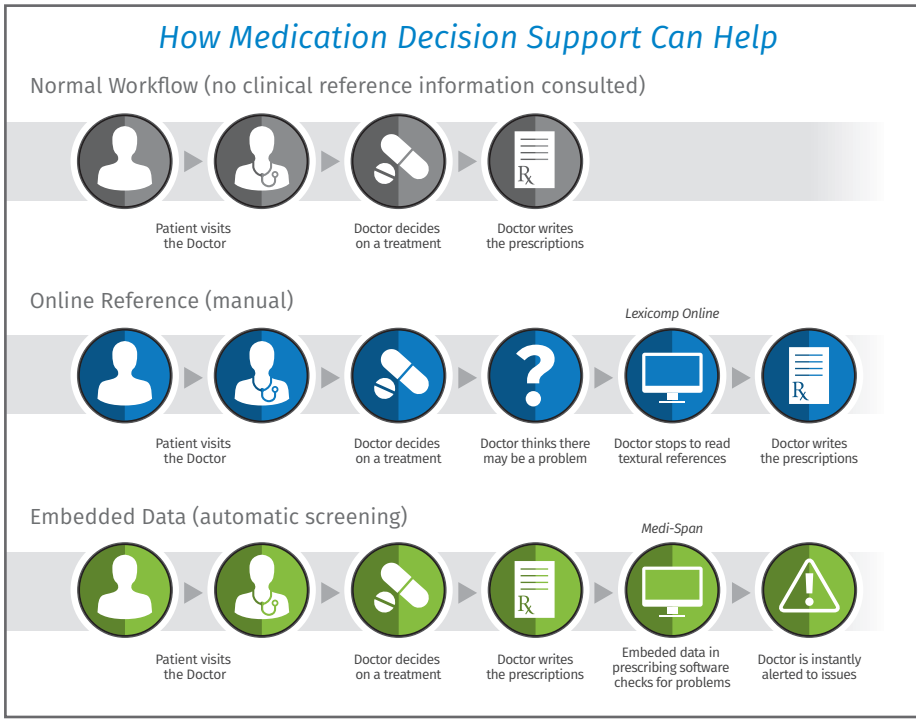
What Can You Do?

One of the most important things hospital leadership can do to equip their professionals to better reduce medication errors is provide "current, relevant, and accessible information" at the various stages in the continuum of care, Bonfiglio says. "Physicians, nurses, pharmacists, and technicians should have access to drug safety information on a consistent basis. They can also implement system checks, either through process improvements or automated screening tools that augment the efforts of the dedicated professionals in their institutions."

Wolters Kluwer Clinical Drug Information is focused on developing and updating solutions to help professionals in their efforts to reduce medication errors, improve quality, lower costs, and enhance the patient experience.

Wolters Kluwer offers both referential medication safety information and drug data to power clinical decision support screenings. These two safety measures give professionals useful tools to help prevent a variety of medication errors, including:

- Dosing errors
- Drug interactions
- Drug allergies
- Duplicate therapies
- Drugs contraindicated by available information in the patient's profile – including age, gender, weight, pregnancy/lactation, renal/hepatic impairment, and genomic factors



With medication-related clinical decision support in place, clinicians can receive automatic alerts from their electronic health record (EHR) system, letting them know when there might be a medication concern. They can then evaluate the issue and make an alternative recommendation if they determine the original medication therapy had the potential to create an adverse drug event.

Clinicians can also use drug references at every stage of the process – prescribing, dispensing, administering, and patient education – to look up dosing and other safety issues to help prevent medication errors.

"Nothing can replace a well-trained, capable healthcare provider in his or her role," Bonfiglio says. "But information to guide safe medication use across the process, as well as the use of sophisticated electronic tools to augment their efforts, can have a significant impact."

Wolters Kluwer

Clinical Drug Information
855.633.0577 | +1 330.650.6506
www.wolterskluwerCDI.com
twitter.com/WKDrugInfo
facebook.com/WoltersKluwerClinicalDrugInformation

31616 8.16