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Medication errors injure more than 1.5m Many mistakes preventable, study concludes

By Lauran Neergaard, Associated Press

WASHINGTON -- Medication mistakes injure well over 1.5 million Americans every year, a toll too often unrecognized and unfought, says a sobering call to action.

At least a quarter of the errors are preventable, the Institute of Medicine said yesterday in urging major steps by the government, healthcare providers, and patients.

The Institute of Medicine is an independent organization chartered by Congress to advise the government on health matters.

Topping the list: All prescriptions should be written electronically by 2010, a move one specialist called as crucial to safe care as X-ray machines.

Perhaps the report's most stunning finding was that, on average, a hospitalized patient is subject to at least one medication error per day. A serious drug error can add more than \$5,800 to the hospital bill of a single patient.

Assuming that hospitals commit 400,000 preventable drug errors each year, that is \$3.5 billion -- not counting lost productivity and other costs -- from hospitals alone, the report concluded.

Worse, there is too little incentive for healthcare providers to invest in technology that could prevent some errors, said Dr. J. Lyle Bootman, the University of Arizona's pharmacy dean, who cochaired the institute's investigation.

"We're paid whether these errors occur or not," said Bootman.

The new inquiry couldn't say how many of the injuries are serious or how many victims die. A 1999 estimate put deaths, conservatively, at 7,000 a year.

Even the total injury estimate is conservative, Bootman said. It includes drug errors in hospitals, nursing homes, and among Medicare outpatients, but it doesn't attempt to count mix-ups in most doctors' offices or by patients themselves.

There have been efforts to improve patient safety in the six years since the institute first spotlighted medical mistakes of all kinds, including recent bar-coding of drugs to minimize mix-ups in hospitals and pharmacies.

But clearly more changes are needed, and the new report highlights how the nation's fragmented healthcare system is conducive to drug errors, said Dr. Donald Berwick, a Harvard professor who heads the nonprofit Institute for Healthcare Improvement.

The sheer volume of medications and their complexity illustrate the difficulty. There are more than 10,000 prescription drugs on the market and 300,000 over-the-counter products. It is impossible to memorize their different usage and dosage instructions, which may vary according to the patient's age, weight, and other risk factors, such as bad kidneys.

Also, 4 of every 5 US adults take at least one medication or dietary supplement every day; almost a third take at least five. The more you use, the greater your risk of bad interactions, especially if multiple doctors prescribe different drugs without knowing what you already take. Add to that doctors' notoriously bad handwriting and sound-alike drug names.

Moreover, consumer instructions are woefully inadequate, the report concludes. One study found that parents gave their children the wrong dose of over-the-counter fever medicines 47 percent of the time.

Among the report's recommendations:

- ✓ The government should speed electronic prescribing, including fostering technology improvements so that the myriad computer programs used by doctors, hospitals, and drugstores are compatible.
- ✓ Patients and their families must be aggressive in questioning doctors, nurses, and pharmacists about medications.
- ✓ The nation should invest about \$100 million annually on research into drug errors.
- ✓ The Food and Drug Administration should improve the quality of information leaflets that accompany prescription drugs.
- ✓ The government should establish national telephone hot lines to help patients unable to understand printed drug information.



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Medication Errors Injure 1.5 Million Americans a Year

Medication errors injure at least 1.5 million Americans annually, costing the nation more than \$3.5 billion a year, according to a new government report released Thursday.

In hospitals alone, the sobering statistics translate into an average of one medication error per patient per day, the Institute of Medicine of the National Academies report found.

And those costly totals don't even begin to include lost wages and productivity.

"Errors in medication happen all too frequently, but they are not unavoidable," Dr. Harvey Fineberg, president of the Institute of Medicine, said at a news conference Thursday. "There's much that can be done and, indeed, should be done to reduce the frequency and mitigate the harm that may come from medication errors."

The report, Preventing Medication Errors, recommends a series of remedial actions, including getting patients to be more involved in their own health care and conducting more research on the problem. Having all prescriptions filled electronically by the year 2010 is one of several specific recommendations.

"Electronic prescribing is safer," said J. Lyle Bootman, co-chair of the committee that wrote the report and dean of the College of Pharmacy at the University of Arizona in Tucson.

This is not the first time the Institute of Medicine has broached this topic. In 1999, the organization published a landmark report called *To Err Is Human: Building a Safer Health System*, which identified a range of patient safety problems and called for improvements.

That report found that at least 7,000 Americans die every year as the result of medication error.

Although there have been some improvements, much still needs to be done, the new report said.

"The report that we are releasing today makes clear that, with regard to medication errors, we still have a long way to go," said Bootman. "The system is characterized by many serious problems that threaten the safety and positive outcomes we hope to achieve when we serve patients."

Medication errors occur at virtually every stage of care, including in administration and at the patient's own hand. Existing studies suggest that 400,000 preventable drug-related injuries occur each year in hospitals, another 800,000 in long-term care settings, and about 530,000 among Medicare recipients in outpatient clinics.

One study found that medication-related injuries among Medicare recipients in outpatient clinics alone resulted in about \$887 million in extra medical costs in 2000.

The report suggests that patients could do much to protect themselves.

"We tell the public to take an active role in their own health care, and ask about the risks and benefits of each medication," said Dr. Wilson Pace, another member of the report committee and a professor of family medicine at the University of Colorado, in Aurora. The report provides a list of questions to ask health-care providers.

And health-care providers and organizations need to inform patients about medication errors, even if the error doesn't result in harm.

The report also recommended that the U.S. Food and Drug Administration work with other groups to standardize medication leaflets, making sure they are user-friendly in the process.

"The Food and Drug Administration believes the Institute of Medicine report provides a much needed perspective on the frequency, severity and preventable nature of medication errors," the FDA said in a prepared statement released Thursday. "We find that many of the recommendations outlined in the report are supported by efforts already under way at FDA in the areas of medication error prevention, patient education and label comprehension."

The report also suggested that the National Library of Medicine should be in charge of online health resources for consumers, and should create one centralized Web site for information about drugs.

"There are upwards of 15,000 medications available today," Pace said. "It's impossible to track with your memory. We're advocating decision-support systems."

The report also called for improvements in drug labeling and packaging, and in naming drugs.

The recommendations themselves will have costs, the report authors conceded.

"Of course, there will be costs," Bootman said. "But there are serious costs associated with the occurrence and incidence of medication errors."

"This issue is quite sobering to all of us, and it's one we need to bring to the surface," Bootman continued. "The good news is that many of these injuries are preventable. Some, we can implement tomorrow morning, and we will begin to see success. Others will take more investment."