The Virtues of Independent Double-Checks: They Really Are Worth Your Time!

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Risk-management procedures typically include recommendations for double-checking critical work. Yet attitudes among those responsible for conducting double-checks haven’t always been positive. The process takes extra time, which some employees may not feel is justified by what they believe to be a relatively small number of problems that are initially missed. Others believe that double-checks might lead to more mistakes, because staff members learn to rely upon others to catch any problems. It is also possible that the checker, based upon his or her colleague’s past performance, may assume that the work is sound and may be less observant during the double-check process.

With today’s problems of staffing shortages and a lack of time being a pervasive problem in the field of health care, the value of double-checks has again been called into question, especially because most organizations have experienced errors that affect patients despite a double-check process. Research in community pharmacies and hospitals, however, suggests that double-checking can be an effective error-reduction strategy if it is conducted properly.

Double-checks identify a higher rate of errors than people realize. In a study in which community pharmacists randomly checked completed prescriptions awaiting pick-up, 4.2% of the 5,700 prescriptions were found to have errors.1 Of these, 2.1% were considered to be potentially clinically significant.

In another study, when pharmacists randomly checked 15,600 completed prescription forms and attached computer labels, discrepancies were identified in 2.6% of them and 1.4% were potentially clinically significant.1

The average “checking error rate” (errors missed on a check) is about 5%. In studies in which “artificial errors” were introduced into simulated pharmacy orders and medication carts, 93% to 97% of such mistakes were identified during an independent double-check.1-2 Thus, even with relatively small error rates, a significant number of mistakes can be identified over time.

It’s difficult to find your own mistakes. In a pharmacy simulation, participants were better at finding the mistakes of others than at finding their own.1 One reason is that confirmation bias (seeing what we are most familiar with instead of what is actually there) reduces our ability to detect mistakes that are present.

For example, those who prepare medications might not be able to recognize that they have selected the wrong drug because they can see only what their mind “thinks” they should be seeing—the intended look-alike product. But adding a second set of eyes to view the same prescription improves checking accuracy.

Double-checks work best when they are conducted independently. The person who is checking must form an independent judgment without cues from the person doing the initial work. Thus, telling someone to “check this prescription for 10 mg of Zyrtec” would not result in an independent judgment.

Such instructions create a mental set for the checker that can lead to verifying the originator’s conclusion (that it’s 10 mg of Zyrtec), even if it is erroneous. It would be more effective to have two people calculate a dose separately and then compare their answers, instead of having them perform the calculations together, or to have one person share the answer with the other before the double-check occurs. People may be swayed by the opinions of others; this is even more common if one person holds a position of authority or has more experience.

Although double-checks are not as effective as system changes that make it easier to avoid making mistakes, there is evidence that double-checks, if performed properly, can reduce the risk of an error reaching the patient. However, except for high-risk patient populations (children and adolescents, elderly or pregnant patients; patients with severe congestive heart failure; and patients with known renal impairment or liver disease)