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The Effect Of Electronic Health Records On Test Ordering

Danny McCormick and coauthors assessed the effects of electronic health records (EHRs) on physician test ordering (Mar 2012). Surprisingly, their careful analysis of national survey data showed greater ordering of imaging studies and laboratory tests among clinicians with computerized access to test results. We were pleased that the authors cited five of our studies regarding EHR test ordering interventions.

We see three explanations for McCormick and coauthors' results. First and most fearsome, simply looking at test data might beget more testing. Minor, asymptomatic abnormalities when highlighted by a computer system could trigger diagnostic work-ups. For example, an old granuloma seen on a chest x-ray could generate a follow-up x-ray "just to be sure." Marginally justifiable screening tests can stimulate bursts of follow-up testing.

Second, electronic imaging results might be most available to tertiary care organizations. They care for more complicated patients and may order more tests in general. The authors found higher rates of testing in hospital-owned practices, which supports this hypothesis.

Finally, increased testing among providers with access to EHRs could be an artifact of measurement bias. Practices fill out National Ambulatory Medical Care Survey forms by hand—a process shown to capture fewer than 35 percent of outpatient chest x-rays and 40 percent of cholesterol tests.¹ A practice with computerized test results data might be able to find and capture a greater percentage of the studies actually done, creating the appearance that such a practice ordered more tests than practices without such data.

Einstein said, "A man should look for what is, and not for what he thinks should be."² We are glad that McCormick and coauthors followed Einstein's advice. In the long run, their work will stimulate better understanding of EHR effects in everyday practice.

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NOTES

- 1 Gilchrist VJ, Stange KC, Flocke SA, McCord G, Bourguet GC. A comparison of the National Ambulatory Medical Care Survey (NAMCS) measurement approach with direct observation of outpatient visits. *Med Care*. 2004;42:276–80.
- 2 QuotationsBook.com [home page on the Internet] [cited 2012 Apr 25]. Available from: <http://quotationsbook.com/>