Patient respect drops when doctors diagnose with computer

Physicians who consult decision-support systems to help make treatment decisions are viewed as less professional, even among college students, a study says.


Patients understand that sometimes physicians need help in making a diagnosis, but more evidence suggests that they are less comfortable when that advice comes from a computer.

Previous research has found that the use of clinical decision support seems to turn off patients, who grade doctors seeking such computer assistance about 10% lower than physicians who make a diagnosis without electronic aid. Findings published in January demonstrate that it is not merely doctors' asking for outside help that it is troublesome, but something about the computer interaction that is turning them off. The results are especially surprising, because the research was conducted among college-age students who grew up with technology.

Researchers surveyed 543 college students and provided them with three episode-of-care vignettes in which they visited a physician. Everything about the care provided was the same except how the doctor reached the diagnosis: unaided, with the EHR's help, or consulting another physician specialist. The EHR-assisted physicians were graded lower — at about the same rate as populations in other studies — than those who made their diagnosis without any consultation. However, doctors who consulted another specialist were rated virtually the same as those who made the diagnosis unaided.

“People didn't have a problem with the doctor not knowing the answer. It was just the computerized piece that bothered them,” said Victoria A. Shaffer, PhD, lead author of the study in the January issue of Medical Decision Making (link).

Not clear why computers mattered

It is unclear why, in these hypothetical scenarios, the use of clinical decision support seemed to trouble patients, said Shaffer, director of the Medical Decision Research Lab at the University of Missouri in Columbia.

“Perhaps it's this intrusion into a human relationship, this relationship between patients and their providers,” said Shaffer, assistant professor of health science and psychological sciences. “The doctor's focus seems to be elsewhere.”

It may be that without the cues of a face-to-face physician encounter — no white coat, no medical degrees on the wall — study participants were less trusting of the doctor's apparent need for computer aid than they would be in real life, Shaffer said. At the same time, the college students surveyed are the digital natives one would expect to be favorably disposed to electronically assisted research.

“If we could find this effect with the college student population, it's likely to be larger among the nonstudent population, with their parents and grandparents,” she said. “It says there must be something unique about this relationship and the effect we're seeing that is outside the realm of tech savvy.”

Clinical decision support is designed to help doctors easily use the patient symptoms and data on hand to make diagnoses and recommend evidence-based treatments. The functionality is widely viewed as one of the principal quality-improvement advantages of health information technology, and implementing it is one of the key requirements of the preliminary recommendations for the final stage of the federal electronic health record incentive program.
More research should be conducted to determine how to improve patient attitudes toward clinical decision support systems as their use in practice grows, Shaffer said.

At Kaiser Permanente, physicians and other health professionals using an EHR in the exam room are advised to let the patient look on, make eye contact, show the benefits of the computer and explain what they are doing with it.