The Ethics of Direct to Consumer Screening Tests

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Story from the Frontlines:

A man in his 60s with hypertension and hyperlipidemia presented to clinic. His wife wanted him to undergo a community health screening, including a carotid ultrasound, abdominal aortic ultrasound, coronary calcium score with cardiac computed tomography (CT), ankle-brachial indices, and lab testing that included hgba1c and lipid panel. A recent A1C was normal and was on a statin for primary prevention. He wanted to know if he should participate in this screening event. He was most concerned about his heart because two close friends had recently had myocardial infarctions. He worked in manual labor six days per week and denied any chest pain - even with vigorous exertion. He could not explain how the screening tests would be performed, nor the risks or potential benefits of the procedures.

Teachable Moment:

Direct to consumer health screenings have become increasingly popular, offering patients a host of health related testing that may be unnecessary or unwanted by a fully informed consumer. For this patient, he would be screened for several conditions, including carotid stenosis, abdominal aortic aneurysm, coronary artery disease, peripheral vascular disease, hyperlipidemia, and diabetes. Other mobile screening units also screen for osteoporosis with heel ultrasound, cardiac function with echocardiography, and cancer with lab testing such as CEA-125. The tests may be appealing to patients due to possible early detection of potentially fatal illnesses, though the supporting science is murky at best, while others have risks that are clearly in excess of any benefit. While some screening tests may have benefit in select patient populations e.g. carotid ultrasound after stroke, untargeted screening with carotid ultrasound, abdominal aortic ultrasound, and coronary CT is not recommended by the American Heart Association. The disadvantages of such testing includes the costs patients may incur with additional testing from false positives or real physical harms from overdiagnosis and overtreatment.

In the case of coronary CT for screening of coronary artery disease, both the Society of Computed Tomography and the American College of Cardiology in the Choosing Wisely initiative have recommended against screening asymptomatic individuals without a family history of premature coronary artery disease (Society of Computed Tomography) or high-risk markers: diabetes in patients older than 40-years-old, peripheral arterial disease, or greater than 2 percent yearly risk for coronary heart disease events (American College of Cardiology).1
The Framingham Risk Score is a combination of independent risk factors for coronary artery disease, including smoking, high total cholesterol, low high-density lipoprotein, diabetes, hypertension, and age. This risk score categorizes patients by their likelihood of having coronary artery disease related events over ten years. Even with an elevated calcium score on coronary CT, a person already on a statin without angina or equivalent would not have their care plan meaningfully influenced by imaging.

Unfortunately, direct to consumer health screenings do not stratify patients by level of risk or whether this testing has recently been completed. Any patient willing to pay the fee is a candidate for screening. Patients are also provided with limited information prior to screening. This information is usually testimonials provided by the testing agency or discussion of the benefits, without mention of harm. These tests and follow-up testing for positive results also add to potentially unnecessary costs of healthcare in an era where evidence-based, high-value care is required.

Further clouding the picture for patient-consumers is the relationship between the direct to consumer health screening organizations and hospitals. Hospitals frequently sponsor these screening events, possibly as a marketing and recruitment tool for additional patronage, which is viewed as an endorsement by community members trying to assess the value of this testing. In 2014, a consumer watch group approached 20 hospitals regarding their relationship with these screening proprietors that offer services with minimal benefit and although the health screening business defended their reasoning, many hospitals discontinued their support of community health screenings.

While it is advantageous for patients to be active stakeholders in their own health, we must advise patients to pursue screening that is evidence-based. We should encourage patients to undergo testing based on risk factors, symptoms, and preferences, not just the convenience of screening.

References:


3) Hendel RC, Patel MR, Kramer CM, et al. ACCF/ACR/SCCT/SCMR/ASNC/NASCI/SCAI/SIR 2006 appropriateness criteria for cardiac computed tomography and cardiac magnetic resonance imaging: a report of the American College of Cardiology Foundation Quality Strategic Directions Committee


5) Wallace EA, Schumann JH, Weinberger SE. Hospital relationships with direct-to-consumer screening companies. JAMA. 2014. 312(9):891-892