



LETTERS

FACT BOXES AND MEDICAL RISK

Authors' reply to Workman

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Evidence shows that, rather than saving lives, ovarian cancer screening with transvaginal ultrasonography and cancer antigen (CA-125) testing produces large numbers of false alarms. These lead to severe harms for women whose healthy ovaries are removed.¹ Given the evidence, the US Food and Drug Administration and the US Preventive Services Task Force recommend against ovarian cancer screening. Doctors and patients can more easily understand this and other risks when they are presented in a fact box.²

Nevertheless, 28% of US doctors have reported non-adherence to this recommendation and screen women at no risk of ovarian cancer, and 65% reported screening women at medium risk.³ Over 10 000 women in Germany are estimated to have had their healthy ovaries removed in 2014 as a consequence of this harmful screening practice.¹ Why do doctors continue to screen for ovarian cancer?⁴

The answer can be found in “SIC syndrome,” which plagues much of current healthcare.⁵

The “S” stands for self defence—doctors practise defensive medicine, defined as deviation from sound medical practice for fear of liability. Of 824 US emergency doctors, radiologists, obstetricians/gynaecologists, and surgeons—specialists at high risk of being sued—93% admitted to sometimes or often practising defensive medicine.⁶ Failure to diagnose cancer early is a frequent cause for litigation, and attorney firms advertise their legal services to women whose doctors failed to diagnose ovarian cancer in a timely fashion.⁷ Similarly, doctors might be concerned about their reputation if they overlook cancer, whereas false positives and unnecessary surgery are not perceived similarly. To protect themselves, many doctors think that they have no choice but to ignore guidelines and risk harming patients through overdiagnosis and overtreatment.

The “I” stands for innumeracy, specifically statistical illiteracy. Studies show that many doctors do not understand health statistics relevant for screening or uphold beliefs uninformed by the evidence from randomised trials.⁸ For example, in a study of 1574 US doctors, 30% wrongly thought that transvaginal ultrasonography was a clinically effective test for ovarian cancer

screening for women at average risk and 18% thought the same of CA-125.⁹

The “C” stands for conflicts of interest. Numerous companies market tests that screen for ovarian cancers, with costs from \$35 (£27; €31) to \$250. In a business driven fee-for-service system not screening means loss of income for doctors and clinics. So doctors who practise evidence based medicine find themselves torn between their financial interests and best practice. Ovarian cancer screening generates a steady source of income, not only from the costs of the test but also from the consequences of false alarms, including unnecessary removal of ovaries and the treatment of resulting complications, such as cardiovascular disease.

As the term SIC syndrome indicates, these three causes are interconnected. A doctor who recommends screening with transvaginal ultrasonography and CA-125 might be motivated by fear of litigation and reputational concerns or by financial worries, or both. These motives are often hard to distinguish. The third cause, innumeracy, can serve as a moral blindfold so that doctors who recommend screening do not even notice that they are violating the Hippocratic oath of “first do no harm.” Not knowing the evidence preserves the illusion that a harm done to patients is in their best interest.

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