
Does Cancer Screening Really Save Lives?



Amidst growing appreciation of the harms of cancer screening, advocates still claim that it “saves lives”. However, this assertion is based on reductions in disease specific mortality rather than overall mortality, according to a *BMJ* article published by Vinay Prasad, MD, MPH, Assistant Professor at Oregon Health and Science University, and colleagues.

The authors argue that overall mortality should be the benchmark against which screening is judged and call for higher standards of evidence for cancer screening.

They cite two major reasons why cancer screening might reduce disease specific mortality without significantly reducing overall mortality. "Firstly, studies may be underpowered to detect a small overall mortality benefit. Secondly, disease specific mortality reductions may be offset by deaths due to the downstream effects of screening," the authors write.

Such "off-target deaths" are particularly likely amongst screening tests associated with false positive results (abnormal results that turn out to be normal) and overdiagnosis of harmless cancers that may never have caused symptoms, explain Dr. Prasad et al. For example, prostate cancer testing (PSA) yields numerous false positive results, which contribute to over one million prostate biopsies a year — which, in turn, are linked to serious harms, including admission to hospital and death.

See Also: [Multimodality Imaging in Cancer Management](#)

"Men diagnosed with prostate cancer are also more likely to have a heart attack or commit suicide in the year after diagnosis or to die of complications of treatment for harmless cancers," the authors note.

Consideration of harms also becomes more important in the absence of clear overall mortality benefit. Thus, the authors call on healthcare providers "to be frank about the limitations of screening" and for higher standards of evidence "to enable rational, shared decision making between doctors and patients."

In an accompanying editorial, Gerd Gigerenzer, PhD, Director at the Max Planck Institute for Human Development, Berlin, Germany, states that "we should invest in transparent information."

Useful tools such as fact boxes can illustrate harms associated with mammography screening, for example, by reporting all three measures of mortality. "The harms are specified numerically so that an informed decision about screening is possible. Every article and pamphlet should provide a fact box summary to facilitate informed decisions," he writes.

He explains that even if the uncertainty of screening on overall mortality is not removed, we can provide people with useful tools to help with informed decision making, adding that "it is time to change communication about cancer screening from dodgy persuasion into something straightforward."

Source: [BMJ](#)

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