

Preventing overdiagnosis – winding back the harms of too much medicine

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The “modern epidemic” of overdiagnosis is increasingly recognised as a significant source of harm and waste within healthcare systems.^{1,2} Overdiagnosis happens when people are given a diagnostic label for a disease or condition that will not harm them.² It can lead to unnecessary tests and treatments and take health resources away from people who could benefit most. There are reliable estimates that in the United States alone, perhaps a third of all spending may be wasted, including US\$200 billion a year spent on overtreatment.³ While healthcare systems based more on solidarity will be unlikely to have that magnitude of waste, there is a growing sense that too much medicine is a global phenomenon.

Overdiagnosis and overtreatment have many cultural, commercial and technological causes, including the use of new diagnostic technology which can detect smaller and smaller “abnormalities” among healthy people, many of which will never go on to cause harm.⁴ While estimates vary, an expert meeting convened by the US National Cancer Institute observed in 2013, “overdiagnosis is common” and occurs “frequently with cancer screening”⁵ – including for example, with breast cancer screening.⁶ Another important driver of overdiagnosis is the expansion of disease definitions and the lowering of diagnostic

thresholds that cause more people with milder problems or at lower risk to be labelled as sick – including those for whom a label may do more harm than good.⁴

Growing evidence about the problem of medical excess is sparking many responses around the world. The influential journal *JAMA Internal Medicine* has launched the *Less is More* series, designed to bring attention to the problem of medical excess, and encourage rigorous research into the problem and solutions.⁷ The *Choosing Wisely* campaign, or its equivalents – created by a rare partnership between health professionals and consumer organisations – is now running in more than a dozen nations, offering advice to the public on which medical interventions are being overused⁸. And one of the world’s oldest and most respected medical journals, *The BMJ* has initiated its *Too Much Medicine* campaign which “aims to highlight the threat to human health posed by overdiagnosis and the waste of resources on unnecessary care.”⁹ Launching the new campaign in 2013, *BMJ* editor-in-chief Dr Fiona Godless explained that “winding back unnecessary tests and treatments, unhelpful labels and diagnoses won’t only benefit those who directly avoid harm, it can also help us create a more sustainable future.”⁹

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As part of the *BMJ's Too Much Medicine* campaign, the journal has launched an on-going series of peer-reviewed articles, each focussing on a condition where changes to the disease definition, or lowering of diagnostic thresholds means that many more *people* are being labelled as *patients* – raising concern about the risk of overdiagnosis.¹⁰ Examples from the current series include: a controversial expansion of the definition of gestational diabetes which overnight almost triples the number of pregnant women labelled¹¹; evidence that many women diagnosed and treated with osteoporosis may experience more harm than good¹²; and concern that screening for the new condition “pre-dementia” will produce overdiagnosis among the elderly¹³. Another example from the *BMJ's* series on overdiagnosis may be of particular interest to nephrologists – the widened definition of chronic kidney disease that label many older people without symptoms as “diseased”¹⁴ and is the subject of on-going controversy.¹⁵

Another key aspect of the *BMJ* campaign is the journals partnership with the multi-disciplinary *Preventing Overdiagnosis* international scientific conferences. The conferences were launched in 2013, with highly successful meetings in Dartmouth College in the US, Oxford University in the UK, and the NIH in Washington in the US.

In 2016, the 4th Preventing Overdiagnosis conference will take place much closer to Portugal – this time in Barcelona, on 20-22nd September, 2016. If you are interested in learning more about too much medicine and how to wind it back, the conference is a great place to meet those working in the field – researchers, clinicians, consumers and policy-makers. And if you'd like to put in a scientific abstract to present at the conference, submissions close on March 31.

A BMJ supported scientific conference in Barcelona this September tackles the problem of medical excess

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References

- Hoffman JR, Cooper RJ. Overdiagnosis of Disease; a modern epidemic. *Arch Intern Med.* 2012;172 (15):1123-4.
- Welch G, Schwartz L, Woloshin S. Overdiagnosed: *Making People Sick in the Pursuit of Health.* Boston:Beacon;2011.
- Berwick D, Hackbarth, A. Eliminating waste in US health care. *JAMA* 2012;307:1513-6.
- Moynihan R, Doust J, Henry D. Preventing overdiagnosis: how to stop harming the healthy. *BMJ* 2012 Jan;344(June):e3502.
- Esserman L, Thompson I, Reid B. Overdiagnosis and Overtreatment in Cancer: An Opportunity for Improvement. *JAMA.* 2013;310(8):797-8.
- Hersch J, Barratt A, Jansen J, et al. Use of a decision aid including information on overdetection to support informed choice about breast cancer screening: a randomised controlled trial. *The Lancet* 2015; 385(9978):1642–1652
- Grady D, Redberg R. Less is more: how less health care can result in better health. *Arch Intern Med.* 2010;170:749-50.
- Cassel C, Guest J. Choosing wisely: helping physicians and patients make smart decisions about their care. *JAMA.* 2012; 307:1801-1802.
- The *BMJ's* Too Much Medicine Campaign, Available at <http://www.bmj.com/too-much-medicine>
- Glasziou P, Moynihan R, Richards T, et al. Too much medicine; too little care. *BMJ* 2013;346:f4247.
- Cundy, T. Ackerman E, Ryan E. Gestational diabetes: new criteria may triple the prevalence but effect on outcomes is unclear. *BMJ* 2014;348:g1567.
- Järvinen T, Michaëlsson K, Jokihaara J, et al. Overdiagnosis of bone fragility in the quest to prevent hip fracture. *BMJ* 2015;350:h2088
- Le Couteur DG, Doust J, Creasey H, et al. Political drive to screen for pre-dementia: not evidence based and ignores the harms of diagnosis. *BMJ* 2013;347:f5125
- Moynihan R, Glasscock R, Doust J. Chronic kidney disease controversy: how expanding definitions are unnecessarily labelling many people as diseased. *BMJ* 2013;347:f4298.
- Ellam T, Twohig H, Khwaja A. Chronic kidney disease in elderly people: disease or disease label? *BMJ* 2016 Jan 18;352:h6559. doi: 10.1136/bmj.h6559.

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