

Choosing Wisely in the UK: reducing the harms of too much medicine

Aseem Malhotra and colleagues explain how and why the Academy of Medical Royal Colleges is bringing to the UK a US initiative to get doctors to stop using interventions with no benefit

The idea that some medical procedures are unnecessary and can do more harm than good is as old as medicine itself. In Mesopotamia 38 centuries ago, Hammurabi proclaimed a law threatening overzealous surgeons with the loss of a hand or an eye. In 1915, at the height of a surgical vogue for prophylactic appendicectomy, Ernest Codman offended his Boston colleagues with a cartoon (figure) mocking their indifference to outcomes and asking, “I wonder if clinical truth is incompatible with medical science? Could my clinical professors make a living without humbug?”

Diagnosis drives treatment, and in recent years the term overdiagnosis has been used to describe various situations where diagnoses lead to unnecessary treatment, wasting resources while increasing patient anxiety. Overdiagnosis can be said to occur when “individuals are diagnosed with conditions that will never cause symptoms or death” often as a “consequence of the enthusiasm of early diagnosis.”³ Overtreatment includes treatment of these overdiagnosed conditions. It also encompasses treatment that has minimal evidence of benefit or is excessive (in complexity, duration, or cost) relative to alternative accepted standards.⁴⁻⁵ A recent report by the Academy of Medical Royal

Colleges argued that doctors have an ethical responsibility to reduce this wasted use of clinical resource because, in a healthcare system with finite resources, one doctor’s waste is another patient’s delay.⁶

Choosing Wisely in the NHS

Even before the inception of the NHS, the British tradition has generally been one of late adoption and cautious use of new medicines, procedures, and technologies. Nevertheless, the UK shows similar patterns of variation in use of medical and surgical interventions to those in the US, though less extreme in absolute terms.⁷ The National Institute for Health and Care Excellence (NICE) was set up in 1999 in part to address these unwarranted variations in clinical practice

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Outcome indifference

and has identified over 800 clinical interventions for potential disinvestment.⁸ However, engaging clinicians with stopping familiar or ingrained practices requires a different approach to that for introducing new treatments.

An initiative recently developed in the US and Canada called Choosing Wisely (www.choosingwisely.org) aims to change doctors’ practice to align with best practice by getting them to stop using various interventions

that are not supported by evidence, free from harm, and truly necessary, including those that duplicate tests or procedures already received. Choosing Wisely asks medical organisations (such as medical royal colleges in the UK) to identify tests or procedures commonly used in their specialty, the necessity of which should be questioned and discussed. These are compiled into lists, and the “top five” interventions for each specialty should not be used routinely or at all.⁹ So far, more than 60 US specialist societies have joined in the Choosing Wisely initiative. It has also been adopted by other countries, including Australia, Germany, Italy, Japan, Netherlands, and Switzerland—a clear

sign that wasteful medical practices are a problem for all health systems.¹⁰

The Academy of Medical Royal Colleges, which represents all medical royal colleges in the UK, is launching a Choosing Wisely programme in collaboration with other clinical, patient, and healthcare organisations. Participating organisations will work together to develop top five lists of tests or interventions with questionable value. The academy, royal colleges, and partners, including *The BMJ*, will then promote dissemination of this information and Choosing Wisely conversations between clinicians and patients. These new conversations will rebalance discussions about the risks and benefits of tests and interventions, such that doctors and patients will be supported to acknowledge that a minor potential benefit may not outweigh potential harm, the minimal evidence base, and substantial financial expense and therefore that, sometimes, doing nothing might be the favourable option.

Tackling the underlying causes of overtreatment

A culture of “more is better,” where the onus is on doctors to “do something” at each consultation has bred unbalanced decision making. This has resulted in patients sometimes being offered treatments that have only



The BMJ's Too Much Medicine campaign highlights the threat posed by overdiagnosis and the waste of resources on unnecessary care.

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minor benefit and minimal evidence despite the potential for substantial harm and expense. This culture threatens the sustainability of high quality healthcare and stems from defensive medicine, patient pressures, biased reporting in medical journals, commercial conflicts of interest, and a lack of understanding of health statistics and risk.¹¹

The system has no incentive to restrict doctors' activity; the NHS in England has a system of payment by results, which in reality is often a payment by activity and encourages providers to do more both in primary and secondary care. General practice is pressured to focus less on open dialogue with patients about treatment options and more on fulfilling the demands of the Quality and Outcomes Framework (QOF, a pay for performance instrument) and adhering to local commissioning decisions. It is instructive to note that a large and comprehensive longitudinal study recently concluded that higher reported achievement incentivised under QOF has not reduced premature death in the population.¹³

Risky business

It is easy to misunderstand health statistics, and doctors can find themselves needing to manage unrealistic expectations of patients who may find it difficult to obtain reliable information. Communicating relative risks as opposed to absolute risk or numbers needed to treat can often unintentionally mislead. As Gerd Gigerenzer, director of Harding Centre for Risk Literacy in Berlin, summarised in 2009, "It is an ethical imperative that every doctor and patient understand the difference between absolute and relative risks, to protect patients against unnecessary anxiety and manipulation."¹⁷

Doctors' health illiteracy is well documented. Misunderstanding of statistics often leads to a belief that screening is more beneficial than it actually is and, in some cases, to no acknowledgement of its potential harms. In a study of 150 gynaecologists, one third did not understand the meaning of a 25% risk reduction from mammography. Many believed that if all women were screened 25% of women (or 250 fewer out of every 1000) would die of breast cancer, when actually the best evidence based estimate is actually one less death per 2000 women (from Cochrane's analysis of randomised studies including 500000 women).

Both medical and surgical overtreatment can place patients at high risk of adverse events.¹⁸ Shared decision making can help to

CALL TO ACTION AND NEXT STEPS

To ensure the development of a Choosing Wisely culture in clinical practice, the academy suggests:

- Doctors should provide patients with resources that increase their understanding about potential harms of interventions and help them accept that doing nothing can often be the best approach
- Patients should be encouraged to ask questions such as, "Do I really need this test or procedure? What are the risks? Are there simpler safer options? What happens if I do nothing?"
- Medical schools should ensure that students develop a good understanding of risk alongside critical evaluation of the literature and transparent communication. Students should be taught about overuse of tests and interventions. Organisations responsible for postgraduate and continuing medical education should ensure that practising doctors receive the same education
- Commissioners should consider a different payment incentive for doctors and hospitals

reduce this overtreatment¹⁹ and may be particularly beneficial to disadvantaged groups, significantly improving health outcomes and reducing health inequalities.²⁰

Potential limitations

One of the major concerns about the development of top five lists in the US is the potential for individual societies to choose low hanging fruit. For example, the American Academy of Orthopaedic Surgeons included the use of an over the counter supplement but no major procedures, despite evidence of wide variation in elective knee replacement and arthroscopy rates among Medicare beneficiaries.²¹ Currently, there is also no evidence that lists reduce use of low value medical practices.²² One crucial and relevant marker of success would be universal awareness of the Choosing Wisely programme among doctors and patients. However, despite much publicity in the medical literature, a random telephone survey of 600 US doctors recently conducted by the American Board of Internal Medicine found that only 21% had heard of Choosing Wisely.²³ The level of public awareness of the campaign, which is a fundamental component to its progress, has not been assessed.

Reducing wasteful and harmful healthcare will require commitment from both doctors

and patients, in addition to objective evidence of effectiveness. The NHS already has good systems for evidence appraisal and health technology assessment, but better and simpler tools are needed to facilitate informed discussion in clinical settings. Without such robust and easily shared decision aids, systematically updated without bias, patients may be swayed by potential exaggerated claims in the media when new drugs or procedures are introduced. Lastly, shared decision making does not guarantee lower resource use²⁴; greater involvement of patients in deciding their care will require a new set of consultation skills as well as a better range of decision aids.

Give me 5

Support from the media and medical publications will be vital because the public education campaign is crucial to the programme's success. The academy will ensure that the programme is thoughtfully implemented and rigorously evaluated by demonstrating a reduction in wasteful practices within a fixed time scale. It will begin by asking specialty organisations to compile top five lists. All lists will be accompanied by an implementation plan and will be evaluated and monitored to assess their effect on reducing low value healthcare.

The academy has set up a steering group to provide policy advice and direction for the project. The group comprises individual experts, patient groups, college representatives and key stakeholders. It is time for action to translate the evidence into clinical practice and truly wind back the harms of too much medicine.

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