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Editorials

Overtreatment and undertreatment:

time to challenge our thinking

It is time to challenge the narrative that concern about overdiagnosis/treatment and underdiagnosis/treatment are opposing world views. Passionate advocates on both sides of the debate battle for the hearts and minds of clinicians, policymakers, and the public. But this is a false dichotomy that inhibits us from finding solutions to important clinical dilemmas. Undertreatment and overtreatment are both examples of suboptimal care. They can coexist at population level and individual level, and they create real tensions for the clinician to balance. They both cause harm, both are difficult to get right, and both are aspects of primary care that would benefit from systematic quality improvement. Too often clinicians feel driven to support one polarised view or other. In reality, they need support to minimise under- and overtreatment, and to manage the tension between them.

How does this tension and suboptimal care manifest in day-to-day practice? There are many examples. Implementation of multiple single-condition guidelines in the individual patient can lead to pursuit of tight glycaemic or blood pressure control that does not take account of multimorbidity and individual risks and benefits.[1] Treatment that is not tailored to the individual can lead to polypharmacy, reduced quality of life, and serious adverse effects. In people with known atrial fibrillation (AF) who suffer a stroke, 47% have not been anticoagulated before their stroke despite the overwhelming evidence of benefit.[2] There is wide variation among clinical commissioning groups (CCGs) (22% to 91%), suggesting that many of these strokes were preventable. In England, the average practice achieves blood pressure control to 150/90 in 79.6% of people with hypertension. But there is substantial variation: excluding outlying practices and including excepted patients in the denominator, achievement varies from 43% to 100%.[3] In both stage 1 hypertension and raised 10-year cardiovascular risk, lifestyle modification is recommended as first-line management. But, in practice, lack of time and resources to support behaviour change and shared decision making can shift the emphasis to medication. A recent study of secondary prevention before stroke analysed the general practice records of 29 000 patients and found that, of 17 700 patients for whom a specific preventive treatment was clinically indicated before their first stroke, 52% did not receive an anticoagulant, 25% did not receive an antihypertensive, and 49% did not receive a statin.[4]

In many cases, opting for treatment or non-treatment will reflect patient choice and wise professional judgement about what is in the patient's best interest. But wide variation can suggest suboptimal care, with inappropriate or potentially harmful over- or undertreatment. This is what John Wennberg defines as the unwarranted variation that *'cannot be explained on the basis of illness, medical evidence, or patient preference, but is accounted for by the willingness and ability of doctors to offer treatment'*.[5]

Undertreatment and overtreatment matter to individual patients and populations. If anticoagulation rates for eligible people with AF increased from 74% to 89%, around 5000 additional strokes would be prevented over 5 years.[6] If an individual has an avoidable stroke or heart attack because anticoagulation was not offered or high blood pressure was poorly managed, relatives would be right to question why evidence-based practice was not followed. If someone breaks a hip and loses their independence because over-aggressive blood pressure treatment caused them to fall, families would be justified in asking why treatment was not adapted to match the individual's needs.

WHY DOES UNDERTREATMENT AND OVERTREATMENT HAPPEN?

Iona Heath described overdiagnosis of the well and undertreatment of the sick as *'the conjoined twins of modern medicine'*.[7] Both are examples of suboptimal care that are driven in part by structural barriers, system imperatives, and professional dilemmas that impact on front-line practice, but are largely beyond the reach of individual practitioners to resolve. For example, with current difficulties in recruitment, many GPs feel overwhelmed by workload and priorities: if we don't have adequate staff or resources, if the systems and pathways to support us are not adequate, just doing our best will not guarantee optimal care. Consultations are high-pressure events where multiple priorities compete — apparently simple tasks like checking blood pressure or counselling about statins are not always feasible. Inflexible single-condition guidelines and financial incentives can foster overtreatment, especially in those with multimorbidity. It is easier to prescribe than to have a complex consultation. In contrast, wide variation in use of exception reporting may mask undertreatment in some populations. Our biomedical training and lack of time and resources can make shared decision making and behaviour change support seem unrealistic. And, although most GPs do carry out some audit, we do not have comprehensive systems in place to identify which of our patients may be under- or overtreated.

WHAT CAN WE DO ABOUT IT?

If we are to reduce over- and undertreatment, this will not be achieved by asking GPs to work harder — there is no capacity for that. We will only achieve it by doing things differently, by changing the system to better support individual patients and clinicians.

First, clinical guidelines need to evolve. The National Institute for Health and Care Excellence has published guidance on the assessment and management of multimorbidity.[8] The guidance recommends that treatments are tailored for the individual, with flexible guideline interpretation that is informed by patient values and preferences, balancing the relative benefits and risks of harm in order to prioritise what is safest and most effective for the individual. To help clinicians deliver optimal care to their patients, future guidelines should offer more than binary recommendations and simple targets. They should include resources that assist

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the clinician to interpret the complexities of benefit and harm, and to adapt the guidance to the individual patient.

Second, the *General Practice Forward View*[9] envisages significant care redesign arising from new models of general practice such as federations, super-partnerships, and more integrated primary and community care. We should take this opportunity to adapt services and pathways to optimise management and reduce over- and undertreatment while minimising the burden on general practice. Examples could include commissioning pharmacists to support shared decision making and real patient choice for anticoagulants and statins; commissioning pharmacists to diagnose and manage hypertension, and to monitor anticoagulant control; integration into routine care of self-monitoring of blood pressure and warfarin; and more structured support for lifestyle modification outside general practice. Many of these innovations are already being implemented across the country, successfully optimising care for patients and supporting general practice (Williams H, personal communication; Arden C, personal communication; both February and March 2017).[10] The NHS RightCare CVD prevention programme,[11] which is built on this approach, is now rolling out to all CCGs in England and brings an opportunity to do this at scale.

Third, proposals to adapt or replace the Quality and Outcomes Framework offer an opportunity to move from a box-ticking culture to a more mature approach to quality improvement. For example, should we consider reducing individual incentivised indicators and replacing them with a contractual requirement to take part in and act on systematic audit? This could be used to identify and address gaps in care (overtreatment and undertreatment) in key clinical areas, with local determination of priorities to be addressed. Such an approach would help strengthen professional accountability for quality improvement that is based on professional and patient definition of quality. And where we do retain incentivisation for processes of care, let's reward shared decision making as well as prescribing.

PROFESSIONAL LEADERSHIP IS KEY

It is time to move on from polarised arguments which focus exclusively on overdiagnosis and treatment or underdiagnosis and treatment as the dominant problem. Both are key challenges for primary care, and GPs are favourably placed to take the lead in addressing both. Optimising individual care and managing the tensions between over- and undertreatment, and between individual benefit and benefit for our registered population, is difficult. But a core expertise of GPs is to balance competing priorities and to manage complexity, so we have a lot to offer in devising solutions. As general practice evolves with innovative ways of working, we should therefore take the professional lead. GPs and our professional bodies should develop a balanced consensus on these twin challenges and open a constructive debate on how to ensure optimal care for patients by reducing both overtreatment and undertreatment. And, in taking a leadership role, we can ensure that solutions reflect reality on the front line, and that they have transparency of evidence and shared decision making at their heart.

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Note
On 6 October 2017 a joint RCGP/NHS RightCare conference will explore how to improve outcomes by optimising secondary prevention in cardiovascular disease. Matt Kearney, Julian Treadwell, and Martin Marshall call for professional leadership in tackling the twin issues of overtreatment and undertreatment.

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