

Overdiagnosis, medicalisation and social justice:

Commentary on Carter et al (2016) A definition and ethical evaluation of overdiagnosis

The concept of 'overdiagnosis' is one of a number of related, normative concepts, such as 'too much medicine',^{1,2} that have emerged recently and which try and describe harms associated with the excessive or undue application of medicine. It is worth considering to what extent the concept of overdiagnosis (and other recent coinages) represents a refinement, an alternative, or a possible successor to the older concept of medicalisation.³ Medicalisation, it has been argued, has been overused, becoming in the process too broad and too nebulous to provide a useful critique of medical practice or organisation.⁴ In this context, overdiagnosis may be regarded as an attempt to regain this critical edge by focusing on a specific facet of medical practice – diagnosis – and attempting, as Carter and colleagues⁵ have done, to delineate a clear set of problems to be addressed.

Critiques, of course, are of their time. They are shaped by the perspectives of the communities from which they arise, and the wider social context of the particular problems that they seek to address. While several drivers of overdiagnosis have been identified, it is perhaps most pertinent that the concept has arisen in an era when the distinction between having a disease and being at risk of disease has effectively collapsed in many areas of medical practice.^{6,7} In part this is due to the rise of ever more powerful technologies for detecting and quantifying biological differences between individuals. Diagnosis is both the set of classifications of disease that exist and the process of categorising individuals according to that

classification schema.⁸ As such, diagnosis evaluates individuals by comparing them to the wider group. The ability to detect differences between individuals at the molecular level allows distinctions to be made on the basis of variations that do not signal the presence of symptomatic disease but rather the future possibility of disease.⁹ At the same time, the deployment and application of these increasingly sensitive tests is strongly driven by a particular strain of preventive medicine.

The preventive ethos represents the logical extension of the idea that the earlier an incidence of disease is detected and treated the better. There are a variety of preventive approaches, including many traditional public health interventions, but there is also an increasing focus on prevention through predicting the onset of disease in individuals before it arises. This manifests, not only in the use of more sensitive tests, but in the routine screening of asymptomatic people and in the promotion of self-monitoring and individual responsibility for health by avoiding unhealthy behaviours. Interventions based on prediction also represent a fundamental change in diagnosis and that shift is temporal; diagnosis becomes less about detecting 'what is' and more about detecting 'what might be'. One result of this is that the distinction between being healthy or having a disease (classifications based on the present) becomes blurred as new categories of 'pre-disease' create a class of 'patients in waiting' who have one or more detectable molecular abnormalities and may or may not go on to develop symptomatic disease (a classification based on the future).⁷ All of these elements are common in oncology and may explain why much early work on overdiagnosis emerged in the context of assessing the outcomes of cancer screening.¹⁰

Predictive approaches are inherently about trying to manage the future, but the future is, by definition, uncertain and contingent. A physician diagnosing disease almost always has to deal with some level of contingency, in terms of matching the idiosyncratic manifestations of illness in the patient before them to the abstract definitions of disease in the ICD-10 or DSM V. However, the shift from diagnosing people who have a disease to diagnosing people who *might* develop a disease fundamentally alters the calculus of benefits and harms involved. This, in my reading, is one of the central concerns that the definition of overdiagnosis proffered by Carter and colleagues⁵ sets out to address. The harms associated with overdiagnosis involve the physical effects of medical treatment that does not benefit, the psychosocial harms of expecting the onset of serious disease which never manifests, and the economic harms resulting from the misallocation of resources and consequent reduction in effectiveness of a given health system. Importantly, while the authors recognise that overdiagnosis affects individuals they understand that it is a problem that operates at the level of systems of health care and has implications for social justice.

Social justice is also a central concern underpinning medicalisation theory. At least in its sociologically-informed iterations, medicalisation theorists were primarily concerned that the definition of problems in medical terms would lead to them being understood as matters of individual biology alone, precluding solutions that address wider systemic inequalities.¹¹ This concern for how problems are framed, and how this framing affects the types of solution on offer, is also pertinent to how we understand the relation between medicalisation, overdiagnosis and similar concepts. Overdiagnosis presents a critique that is largely aligned with a medical worldview. It

presents a normative model for medicine to reform its own practices from within. In comparison, medicalisation was and is an external critique – not necessarily of medicine itself (although it certainly has been used that way), but of the political use of medicine to foreground diagnosis and treatment of individuals while side-lining economic, environmental and other approaches to redress the unequal distribution of health and illness in society. This concern is far from redundant in relation to the wider phenomena described by overdiagnosis and it is worth reflecting not only on when it might be most appropriate to employ overdiagnosis as opposed to medicalisation, but also what is gained, and what might be lost, by drawing on each perspective.

References

1. Moynihan R, Smith R. Too much medicine? Almost certainly. *British Medical Journal* 2002; 324: 859
2. Moynihan R, Glasziou P, Woloshin S, Schwartz L, Santa J, Godlee F. Winding back the harms of too much medicine. *British Medical Journal* 2013; 346: f1271
3. Hofmann B. Medicalisation and overdiagnosis: different but alike. *Medicine, Healthcare and Philosophy* 2016; 19(2): 253-264
4. Rose N. Beyond medicalisation. *The Lancet* 2007;369: 700-2

5. Carter S, Degeling C, Doust J, Barratt A. A definition and ethical evaluation of overdiagnosis. *Journal of Medical Ethics* 2016; [issue no and page details unavailable at time of writing]
6. Aronowitz RA. The converged experience of risk and disease. *Millbank Quarterly* 2009; 87(2): 417-42
7. Timmermans S, Buchbinder M. Patients-in-waiting: Living between sickness and health in the genomics era. *Journal of Health and Social Behaviour* 2010; 51(4): 408-423
8. Blaxter M. Diagnosis as category and process: the case of alcoholism. *Social Science and Medicine* 1978; 12: 9-17
9. Cox H, Webster A. Translating biomedical science into clinical practice: molecular diagnostics and the determination of malignancy. *Health* 2012; 17(4); 391-406
10. Black WC. Overdiagnosis: An underrecognized cause of confusion and harm in cancer screening. *Journal of the National Cancer Institute* 2000; 92(16): 1280
11. Conrad P. Medicalisation and social control. *Annual Review of Sociology* 1992; 18: 209-32

Acknowledgements: I would like to thank Polly Kerr (HeLEX) and Ignacio Mastroleo (FLACSO-Arentina) for their helpful thoughts and comments on previous drafts of this commentary.

Competing interests: None

Ethics approval: Not required