

## History of Overdiagnosis and Lessons to Learn Monday 20<sup>th</sup> September 2021

### Abstract

In some ways, overdiagnosis seems like a very modern phenomenon: the advent of new highly sensitive screening tests, disease awareness campaigns, the expansion of disease definitions (diagnostic creep, “pre-disease,” disease mongering), and the development of innovative marketing strategies (ie, industry-entangled disease awareness campaigns). However, the concept of overdiagnosis actually has a long history. The first appearance of the term “overdiagnosis”--or its synonym “pseudo-disease”--in the medical literature occurred about 100 years ago. The actual phenomenon, however, is even older. That history can provide important lessons to help us recognize the problem, mitigate its effects, and set new research directions.

This panel session will discuss the history and drivers of medical overdiagnosis and how to use those lessons to improve medical care. Panelists will discuss the origins of the concept of overdiagnosis and the social environment that continues to amplify its prevalence. A variety of illustrative cases will be discussed, such as early tests for syphilis, social anxiety disorder, prediabetes, and creation of new categories of psychiatric disorders. Urologic oncology in particular provides some of the most salient examples of overdiagnosis and its societal burden. There is a very large reservoir of asymptomatic, indolent lesions that fulfill histologic criteria for cancer but would never progress to symptomatic, life-threatening disease. Prominent examples include prostate cancer and small renal tumors. Tests such as blood PSA and CT scans dip into that reservoir, rapidly turning asymptomatic people into cancer patients and triggering overtreatment. The history of overdiagnosis in urology will therefore be discussed in more detail, with an eye toward future strategies and research to minimize overdiagnosis and its effects.

### Speakers

- Moderators: Steven Woloshin (Dartmouth Geisel School of Medicine, USA; Barnett Kramer, National Cancer Institute, USA)
- Panel Chair: Jenny Doust (Clinical Professorial Research Fellow, Centre for Longitudinal and Life Course Research, The University of Queensland, Australia)
- Scott Podolsky: Professor of Global Health and Social Medicine, Harvard Medical School; Director of the Center for the History of Medicine, Countway Medical Library; Physician, Massachusetts General Hospital, USA
- Ian Thompson: University of Texas HSC at San Antonio, CHRISTUS Santa Rosa, and Texas Urology Group, USA

**Session Learning Objectives** - At the end of this presentation, attendees will be able to:

- Recognise the conceptual origins of overdiagnosis in the history of public health and medical practice.
- Interpret the social context and factors driving overdiagnosis.
- Find examples of overdiagnosis that arise from disease screening, changes in diagnostic patterns, and disease awareness campaigns.
- Describe the historical developments that led to prostate cancer overdiagnosis and efforts to mitigate its harms.