Testing for COVID-19: Making Sense of Benefits and Harms

Tuesday April 5th 2022

Noon – 1.30pm BST (UK)
7am – 8.30am EDT (USA)
9pm – 10.30pm AEST (AUS)
The webinar will be recorded for those who cannot join live.

Abstract

The emergence of a novel coronavirus in late 2019 led to the rapid development and distribution of a range of tests to detect the SARS-CoV-2 virus and diagnose cases of COVID-19 infection. According to the United States Food and Drug Administration, "rapid detection of COVID-19 cases ... requires wide availability of testing to control the emergence of this rapidly spreading, severe illness." Population-scale testing has been widely used in the public health response to COVID-19, contributing to epidemiological data collection and informing policy decision-making. Individual-level testing has not only been performed to diagnose suspected cases in symptomatic patients, but also to screen asymptomatic people who may be at risk of developing symptomatic illness or spreading infection to others. During the course of the pandemic, there has been uncertainty—along with heated scientific debate and public confusion—around the value of COVID-19 tests, in terms of their reliability (e.g. sensitivity/specificity, false positives/false negatives, validation/approval); their use (e.g. frequent testing, surge testing, at-home testing, what types of tests to use; and what to do with test results); their role in preventing serious illness and saving lives; and their effectiveness as tools for self-diagnosis, public health surveillance, and other purposes. Mainstream public health approaches continue to rely on testing but some critics have cast doubt on testing, arguing that it has led to what they have labeled a "casedemic".

This session brings together experts on evidence-based medicine, overdiagnosis, epidemiology, infectious disease, and public health policy for a moderated discussed on the benefits and harms of individual and population-based testing during a pandemic. They will offer insights into the quality of evidence for COVID-19 testing technologies and their use in both clinical care and government policy. Panelists will reflect on lessons learned to inform a more effective response to future infectious disease outbreaks. They will use the example of COVID-19 testing to evaluate how the principles of evidence-based medicine can be applied in the context of a deadly pandemic.

Learning objectives

Following this session, participants will be able to:

1. Discuss some of the benefits, harms, and uncertainties around COVID-19 testing.
2. Describe the role of COVID-19 testing in public health, clinical care, and other contexts.
3. Evaluate the appropriate use of screening and diagnostic tests for infectious diseases.
4. Identify ways for researchers and practitioners in the Preventing Overdiagnosis community to help improve the response to emerging infectious diseases in the future.

Confirmed Panelists

Tara Montgomery (Moderator), Founder & Principal, Civic Health Partners; Scientific Committee Member for Preventing Overdiagnosis
Carl Heneghan, BM, BCH, MA, MRCGP, DPhil, Director, Center for Evidence-Based Medicine, University of Oxford
Tim Mercer, PhD, Group Leader at the Australian Institute for Bioengineering and Nanotechnology at The University of Queensland
Michael Mina, MD, PhD, Chief Science Officer, EMed; former Assistant Professor of Epidemiology, Harvard T.H. Chan School of Public Health