

## P12: CAUSES AND IMPLICATIONS OF OVERDIAGNOSIS

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## Background:

Overdiagnosis is defined as the diagnosis of a condition not associated with a substantial risk for health in an asymptomatic person. There are several causes of overdiagnosis. Clinical and public health implications of overdiagnosis are underappreciated.

# Objective:

To review the causes of overdiagnosis, and its clinical and public health implications

#### Method:

Narrative review

## Results:

Overdiagnosis results from some screening activities, increasingly sensitive diagnostic test procedures, incidental findings on routine exams, and widening diagnostic criteria to define a condition requiring an intervention. The fear of missing a diagnosis and the patients' requests for reassurance are further causes of overdiagnosis. Examples of overdiagnosis include some cases of breast and prostate cancers found by screening, pulmonary emboli identified on highly sensitive CT-scans, and kidney cancers found incidentally following abdominal CT-scans. Lowering the critical levels of blood pressure, glycemia, and cholesterol to define hypertension, diabetes, and hypercholesterolemia, respectively, is also the causes of overdiagnosis. An overdiagnosed condition implies unnecessary procedures to confirm or exclude the presence of the disease and unnecessary treatments, both having potential adverse effects. Overdiagnosis also diverts health professionals from caring about other health issues and generates costs without any benefit. Measures to prevent overdiagnosis are notably 1) to increase awareness of health professionals and the population about its occurrence, 2) to account systematically for the risks and benefits of screening and diagnostic procedures using an evidence-based framework, and 3) to decide at which risk level to intervene based on the absolute risk of health events and the absolute risk reduction expected from an intervention.

# **Conclusion:**

Overdiagnosis has major clinical and public health implications. Increasing awareness of its causes and implications is a step toward its prevention.