Table 1: Judgement of the risk of lead time bias in randomised and non-randomised studies that estimate overdiagnosis.

Risk of bias	Criteria	Justification
Low	Lead time adjustment was based on a comparison of cumulative incidence in a screened and unscreened population after an ideal follow-up time after screening stops (≥10 years)	(Carter, 2015)
Moderate	Lead time adjustment was based on a comparison of cumulative incidence in a screened and unscreened population after a sufficient follow-up time after screening stops (5-9 years)	(Walter, 1983; Shen, 2001; Biesheuvel, 2007; Zahl, 2012; Puliti, 2011; Miller, 2014)
Serious	Lead time adjustment was based on a) a statistical correction using directly observed data and a sufficient mean lead time; or b) a statistical correction for lead time from a model which explicitly allowed for progressive and non-progressive preclinical cancers, and competing mortality	(Zahl, 2013;Baker, 2014)
Critical	Lead time adjustment was based on: a) an insufficient follow-up time after screening stops (<5 years); or b) using a statistical correction of lead time from a model that did not allow for progressive and non-progressive cancer, and competing mortality; or c) no consideration of lead time	(Zahl, 2013; Baker, 2014)
Unknown	Insufficient information for assessment of lead time adjustment	