Table 2. Assessment of study methods for potential sources of bias in randomized trials of hepatocellular carcinoma screening

Author, Year, Setting Years of enrollment	Sequence generation	Allocation concealment	Blinding (patients, personnel, outcome assessors)	Incomplete outcome data	Selective outcome reporting	Other sources of bias	Overall risk of bias
Chen, 2003[29] Asia: China (Qidong county, Jiangsu Province) RCT 1989-1995	Unclear: NR	Unclear: NR	Yes - personnel staging cancers, Probably no - all others Low for mortality outcome	Mortality data likely available for everyone. Mean duration f/u similar in both groups Low	Low	Low: Baseline characteristics similar, but only age, ALT and AFP levels reported.	Unclear
Zhang, 2004[28] Asia: China (Shanghai) RCT 1993-1995	Unclear: NR	Unclear: NR	Unclear: NR	High Unclear for what proportion survival data were available.	High Vital status data reportedly available, but all-cause mortality not reported.	High Sparse baseline data available to compare both groups. No statistical analysis done to account for effects of clustering.	High
Trinchet 2011[31] Europe: France RCT screening intervals 2000-2006	Low	Low	Low (no mention of blinding, but low risk of bias for mortality outcomes)	Low	Low, intention-to-screen analysis	Low - groups similar at baseline	Low
Wang, 2013 [30] Asia: Taiwan RCT screening intervals 2006-2010	Low	Low	Unclear, probably no blinding. Patient survival followed by public health nurses for all patients, so probably low risk of bias for mortality outcome.	Unclear: NR Unclear how many patients were lost to follow-up and there was no mention of death registry to ensure complete follow-up of mortality outcomes.	High: ITT analysis probably done, but not specifically mentioned. Clustered trial and no mention of adjustment for clustering.	Low Groups comparable at baseline, other than higher age and bilirubin in control group (though similar on other liver disease severity markers). Demographic characteristics among those with HCC similar in both groups.	Unclear