Supplemental Table 1: RCTs of STEMI patients – PPCI versus Thrombolysis

Study	Study Type	Age (Years)	Number of Patients	Outcomes Assessed	Findings
SENIOR PAMI Trial (2005) PPCI vs. Thrombolysis	RCT	≥70	483	Death or disabling stroke at 30 days	Primary endpoint: • 11.3% for PCI vs. 13% for thrombolytic, *P*=0.57 • No difference in in-hospital major bleeding (5.6% for PCI vs. 6.2% for thrombolytic, *P*=0.79)
Zhang *et al* (2006) PPCI vs. Thrombolysis	RCT	>75	102	In-hospital, 30-day Follow-up to 12 months: MACE including death, non-fatal myocardial infarction, target vessel revascularisation	In-hospital: • Mortality lower in PPCI group (2.0% vs 15.4%, *P*=0.04). • PPCI better for reducing hospital mortality in diabetics (*OR*=0.43, 95%CI: 0.33–0.85, *P*=0.01) or anterior myocardial infarction (*OR*=0.44, 95% CI: 0.31–0.87, *P*=0.02) Thirty day: • MACE composite and LVEF similar One year: • MACE significantly lower in PPCI group (21.3% and 45.2%, *P*=0.029)
Bueno *et al* (2011) PPCI vs. Thrombolysis	RCT	≥75	266	Primary endpoint a composite of all-cause mortality, reinfarction, or disabling stroke at 30 days	Primary endpoint: • No difference PPCI (18.9%) vs. fibrinolysis (25.4%) (OR=0.69, 95% CI: 0.38-1.23, *P*=0.21) Recurrent ischaemia: • Less common in PPCI group (0.8 vs. 9.7%, *P*<0.001) Major bleeding: • No difference PPCI 5 (3.8%) vs. fibrinolysis 6 (4.5%) (OR=0.84, 95% CI: 0.25–2.82, *P*=0.78)

PPCI- primary percutaneous coronary intervention; RCT-randomised controlled trial; MACE-major adverse cardiac event; OR-odds ratio; LVEF-let ventricular ejection fraction; CI-confidence interval

Supplemental Table 2: Studies of NSTEMI patients – Invasive care versus conservative care

Study	Study Type	Age (Years)	Number of Patients	Primary Outcomes Assessed	Findings
Bach et al (2004) Invasive vs. Conservative for NSTEACS	RCT	>65	2,220	Rates of 30-day and 6-month mortality, nonfatal MI, rehospitalization, stroke, and hemorrhagic complications	Death and MI at 6 months: • Among patients >75 years of age the early invasive strategy conferred an absolute reduction of 10.8% (10.8% vs. 21.6%, *P*=0.016) in death or MI at 6 months Major bleeding: • Major bleeding rates were higher with early invasive strategy in patients >75 years of age (16.6% vs. 6.5%, *P*=0.009).
Italian Elderly ACS Trial (2012) Invasive vs. Conservative for NSTE-ACS	RCT	≥75	313	Composite of death, MI, disabling stroke, and repeat hospitalisation for cardiovascular causes or severe bleeding within 1-year	Composite outcome: • No difference in primary outcome (27.9% vs. 34.6%, HR=0.80, 95% CI: 0.53-1.19, *P*=0.26), but significantly reduced in patients with elevated troponin on admission (HR=0.43, 95% CI: 0.23-0.80) Individual outcomes: • No significant differences
Sanchis *et al* (2016) Invasive vs. Conservative for Comorbid NSTEMI	RCT	>70	106	Primary outcome a composite of all-cause mortality, reinfarction, and readmission for cardiac cause at 2.5-years	Composite outcome: • No difference in primary outcome: Invasive vs. conservative (IRR=0.946, 95% CI: 0.466–1.918, *P*=0.877) Rate of mortality or ischaemic events: • No difference (invasive vs conservative: IRR=0.595, 95% CI: 0.244-1.451, *P*=0.254) Bleeding: • No difference (invasive vs conservative: IRR=0.445, 95% CI: 0.097-2.127, *P*=0.289)
After Eighty Study (2016)	RCT	≥80	457	Primary outcome a composite of MI, need	Composite outcome: • Invasive significantly superior to conservative (40.6% vs.

Invasive vs. Conservative for NSTE-ACS				for urgent revascularisation, stroke, and death with median follow-up of 1.53 years	61.4%, HR=0.53, 95% CI: 0.41-0.69, *P*=0.001) Individual outcomes: • Myocardial infarction: (HR=0.52, 95% CI: 0.35-0.76, *P*=0.001) • Need for urgent revascularisation: (HR=0.19, 95% CI: 0.07-0.52, *P*=0.001) • Stroke: (HR=0.60, 95% CI: 0.25-1.46, *P*=0.26) • All-cause mortality: (HR=0.89, 95% CI: 0.62-1.28, *P*=0.53) Bleeding complications: • Any bleeding: invasive 10% vs. conservative 7% • Major bleeding: invasive 1.7% vs. conservative 1.8%
Reaño *et al* (2020) Invasive vs. Conservative NSTE-ACS	Meta-analysis	>65	3,768	All-cause mortality (mean follow-up 4 years), cardiovascular mortality (mean follow-up 8 years), MI (mean follow-up 2 years), stroke (mean follow-up 2 years), need for revascularisation (mean follow-up 2 years), recurrent angina (1 trial, follow-up 1-year)	All-cause mortality: • No significant benefit for invasive strategy (invasive 31% vs. conservative 36%, RR=0.69, 95% CI: 0.39-1.23) Cardiovascular mortality: • No significant benefit for invasive strategy (invasive 19% vs. conservative 22%, RR=0.86, 95% 0.67-1.10) MI: • No significant benefit for invasive strategy (invasive 10% vs. conservative 16%, RR=0.63, 95% CI: 0.39-1.04) Stroke: • No significant benefit for invasive strategy (invasive 2% vs. conservative 3%, RR=0.52, 95% CI: 0.26-1.03) Need for revascularisation: • Significant benefit for invasive strategy (invasive 2% vs. conservative 8%, RR=0.29, 95% CI: 0.14-0.59, *P*=0.0006, I^2=3%) Recurrent angina: • No significant benefit for invasive strategy (RR 0.81, 95% CI: 0.45–1.46, *P*=0.49)

Ma *et al* (2018) Invasive vs. Conservative NSTE-ACS	Meta-analysis	≥75	832,007	Primary outcome death at follow-up from 6 months to 5 years Secondary outcomes included in-hospital death, MI at follow-up, composite of death and MI, MACE (combination of death, MI, stroke, revascularisation, and rehospitalisation per study protocol) at follow-up from 6 months to 3 years, stroke at follow-up from 6 months to 1.5 years, rehospitalisation at follow-up from 6 months to 1-year, in-hospital major bleeding, in-hospital any bleeding	Primary outcome: • Invasive better (RR=0.65, 95% CI: 0.59–0.73, *P*<0.001) • Observational studies invasive better (RR=0.63, 95% CI: 0.57–0.70, *P*<0.001) • RCTs no difference (RR=0.82, 95% CI: 0.64–1.05, *P*=0.119) In-hospital death: • Invasive superior (RR=0.70, 95% CI: 0.53–0.92, *P*=0.011) MI at follow-up: • Invasive superior (RR=0.58, 95% CI: 0.46–0.72, *P*<0.001) Composite of death and MI: • Invasive superior (RR=0.63, 95% CI: 0.50–0.79, *P*<0.001) MACE (6 months to 3 years): • Invasive superior (RR=0.60, 95% CI: 0.49–0.74, *P*<0.001) Stroke (6 months to 1.5 years): • Invasive superior (RR=0.54, 95% CI: 0.30–0.97, *P*=0.040) Rehospitalisation (6 months to 1-year): • No difference (RR=0.95, 95% CI: 0.75–1.21, *P*=0.67) In-hospital major bleeding: • No difference (RR=1.78, 95% CI: 0.31–10.13, *P*=0.51) In-hospital any bleeding: Higher risk with invasive (RR=2.51, 95% CI: 1.53–4.11, *P*<0.001)
Gnanenthiran *et al* (2017) Revascularisation vs.	Meta-analysis	≥75	20,540	In-hospital mortality, mortality at follow-up, MI, revascularisation, rehospitalisation for	In-hospital mortality: • Invasive significantly superior (OR=0.65, 95% CI: 0.53-0.79, *P*<0.0001, I^2=38%)

Conservative for NSTE-ACS				cardiac causes, stroke, major bleeding	Mortality at follow-up: • Invasive significantly superior (OR=0.67, 95% CI: 0.61-0.74, *P*<0.00001, I²=0%) • No difference in RCTs (OR=0.84, 95% CI: 0.66-1.06, *P*=0.15, I²=0%) In-hospital MI: • Invasive significantly superior (OR=0.43, 95% CI: 0.30-0.61, *P*<0.00001, I^2=0%) MI at follow-up: • Invasive significantly superior (OR=0.56, 95% CI: 0.45-0.70, *P*<0.00001, I²=18%) • Invasive significantly superior in RCTs alone (OR=0.51, 95% CI: 0.40-0.66, *P*<0.00001, I²=0%) • Subgroup analysis of patients ≥80, invasive significantly superior (OR=0.60, 95% CI: 0.43-0.84, *P*=0.002, I²=60%) Revascularisation: • Invasive significantly superior at 12-18 months (OR=0.27, 95% CI: 0.13-0.56, *P*=0.0005, I²=0%) Rehospitalisation: • No difference invasive vs. conservative (OR=0.95, 95% CI: 0.75-1.22, *P*=0.71, I²=0%) Stroke: • Invasive significantly superior at 6-18 months (OR=0.53, 95% CI 0.30 to 0.95, *P*=0.03, I²=0%) • Remained superior for patients ≥80 (OR=0.54, 95% CI: 0.29–0.97, *P*=0.04, I²=0%) • Invasive insignificantly superior in RCTs (OR=0.59, 95% CI: 0.25-1.36, *P*=0.21, I²=0%) Major bleeding: • In-hospital significantly more likely in invasively treated

					(OR=2.37, 95% CI: 1.53-3.68, *P*=0.0001, I^2=30%) • Long-term follow-up bleeding significantly more likely in invasively treated (OR=2.38, 95% CI: 1.64-3.45, *P*<0.00001, I^2=0%) • Long-term follow-up bleeding significantly more likely in invasively treated in RCTs (OR=2.19, 95% CI: 1.12-4.28, *P*=0.02, I^2=0%)

RCT-randomised controlled trial; MI-myocardial infarction; OR-odds ratio; CI-confidence interval; NSTEACS-non ST elevation acute coronary syndrome; ACS-acute coronary syndrome; HR-hazard ratio; NSTEMI-non ST elevation myocardial infarction; MACE-major adverse cardiac event; RR- relative risk

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