

Supplemental Table 1. A MEDLINE search strategy:

#	Search	Results
#1	"Peroxidase"[Mesh]	134863
#2	"Biomarkers" [Mesh]	800721
#3	"Inflammation Mediators"[Mesh]	361740
#4	#1 OR #2 OR #3	1137062
#5	"Myocardial Infarction" [Mesh]	161335
#6	"Acute Coronary Syndrome" [Mesh]	11907
#7	"Non-ST Elevated Myocardial Infarction" [Mesh]	211
#8	"Angina, Unstable"[Mesh]	10563
#9	#5 OR #6 OR #7 OR #8	175986
#10	"Prognosis"[Mesh]	1368644
#11	"Predictive Value of Tests"[Mesh]	175855
#12	#10 OR #11	1487900
#13	#4 And #9 And #12	3586

Supplemental Table 1.B Scopus Search Strategy

#	Search terms	Results
	(ALL (peroxidase) OR ALL (myeloperoxidase) OR ALL (biomarkers)) AND (ALL (prognosis)) AND (ALL (myocardial AND infarction) OR ALL (acute AND coronary AND syndrome) OR ALL (non-st AND elevated AND myocardial AND infarction) OR ALL (unstable AND angina)) AND NOT (ALL (cancer) OR ALL (carcinoma) OR ALL (aortic AND stenosis) OR ALL (mice) OR ALL (thyroid) OR ALL (pancreas) OR ALL (renal) OR ALL (liver) OR ALL (kidney) OR ALL (leukemia) OR ALL (tumor) OR ALL (immunohistochemistry) OR ALL (uterus) OR (animals) OR (prostate) OR ALL (in AND vitro) OR ALL (infection) OR ALL (lymphoma) OR ALL (epithelial AND cells) OR ALL (lung) OR ALL (gene) OR ALL (genetic) OR ALL (rabbit) OR ALL (rats) OR ALL (bone) OR ALL (mineral) OR (intestinal) OR (intestine) OR ALL (pulmonary) OR ALL (environment) OR ALL (brain) OR ALL (sepsis) OR ALL (psychosis) OR ALL (colon) OR ALL (case AND report) OR (arthritis)) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (SUBJAREA , "MEDI"))	904

Supplemental Table 2. The definition of Major adverse cardiac events of the included studies in the meta-analysis.

Study	Major adverse cardiac events (MACE) definition
Apple²⁰	A composite endpoint of the first recurrent MI, PCI, CABG, or cardiac death.
Brügger Andersen²⁵	Recurrent TnT-positive ACS or cardiac death.
Chang²⁶	A composite endpoint of advanced Killip score (defined as Killip classification ≥ 3) upon presentation, re-infarction, repeat PCI or mortality.
Eggers⁹	A composite endpoint of mortality and acute MI.
Kaya¹⁰	cardiac death; reinfarction; new hospital admission for angina; heart failure; and revascularization procedures by means of CABG or PCI.
Oemrawsingh²³	A composite endpoint of all-cause mortality and non-fatal MI.

MI, Myocardial infarction; PCI, percutaneous coronary intervention; CABG, coronary artery bypass graft; TnT, Cardiac troponin.
T; ACS, Acute coronary syndrome.

Supplemental Table 3. Assessment the quality of the included studies using the Newcastle-Ottawa quality assessment scale:

Study	Selection				Comparability	Ascertainment of outcome			Total Score
	Representativeness of the exposed cohort	Selection of the non-exposed cohort	Ascertainment of exposure	Demonstration that outcome of interest was not present at start of the study		Comparability of cohorts on the basis of the design or analysis	Independent assessment or record linkage	Follow up long enough for outcomes to occur	
Apple [31]	*	*	*	*	*	*	*	*	8
Baldus [34]	*	*	*	*	*	#	*	*	7
Brügger-Andersen [30]	*	*	*	*	**	*	*	*	9
Cavusoglu [38]	*	*	*	*	**	*	*	*	9
Chang [28]	*	*	*	*	*	#	\$	*	6

No evidence of independent blind assessment of outcomes or linkage to patient's record, however we believe that the lack of blinding could have less likely introduced a risk of bias in evaluating our outcomes of interest. \$ follow up is 30 days. A maximum two stars can be given for comparability based on the number of risk factors they adjusted for.

Supplemental Figure Legends:

Supplemental Figure 1. Meta-regression for risk factors of Mortality. X axis represents the observed effect size of studies. Y is Meta-regression coefficient. Age (Y= - 0.12; P=0.32). Female (-8.61; P= 0.0048). ACS (Y=-0.071; P=0.94). DM (Y=3.522; P=0.32). Hypertension (Y=0.20; P=0.911). Smoking (Y=1.44; P=0.55).

Supplemental Figure 2. Meta-regression for risk factors of Major Adverse cardiac events. X axis represents the observed effect size of studies. Y is Meta-regression coefficient. Age (Y= - 0.112; P=0.28). Female (-3.15; P= 0.301). ACS (Y=-0.22; P=0.897). DM (Y= -0.353; P=0.89). Hypertension (Y=0.74; P=0.785). Smoking (Y=2.04; P=0.28).

Supplemental Figure 3. Meta-regression for risk factors of Recurrent Myocardial infraction. X axis represents the observed effect size of studies. Y is Meta-regression coefficient. Age (Y= - 0.03; P=0.68). Female (-2.23; P= 0.06). ACS (Y=-0.11; P=0.89). DM (Y= 2.0; P=0.286). Hypertension (Y=1.13; P=0.37). Smoking (Y=4.8; P=0.204).

Supplemental Figure 4. Forest Plot displays Sensitivity analysis using the one study removed method. High myeloperoxidase is significantly associated with mortality (odds ratio 2.040; 95% confidence interval [CI]: 1.405-2.960, p=0.000). High MPO showed a trend for developing major adverse cardiac events (odds ratio 1.421; 95% confidence interval [CI]: 1.010-1.999, p=0.044) and recurrent MI (odds ratio 1.241; 95% confidence interval [CI]: 0.996-1.545, p=0.054).

Supplemental Figure 5. Forest Plot displays Cumulative meta-analysis. High myeloperoxidase is significantly associated with mortality (odds ratio 2.040; 95% confidence interval [CI]: 1.405-2.960, p=0.000). High MPO showed a trend for developing major adverse

cardiac events (odds ratio 1.421; 95% confidence interval [CI]: 1.010-1.999, $p=0.044$) and recurrent MI (odds ratio 1.241; 95% confidence interval [CI]: 0.996-1.545, $p=0.054$).

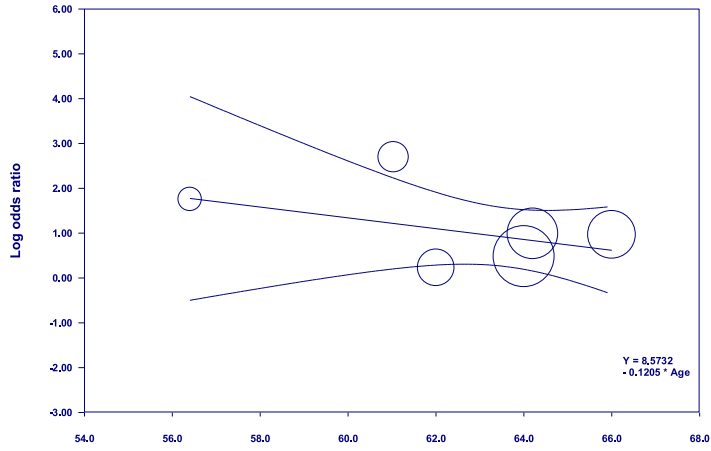
Supplemental Figure 6. Funnel plot of all studies included in the meta-analysis. The Standard Error (SE) of the log Odds Ratio of each study was plotted against the Odds Ratio for mortality. No skewed distribution was observed, suggesting no publication bias.

Supplemental Figure 7. Funnel plot of all studies included in the meta-analysis. The Standard Error (SE) of the log Odds Ratio of each study was plotted against the Odds Ratio for major adverse cardiac events. No skewed distribution was observed, suggesting no publication bias.

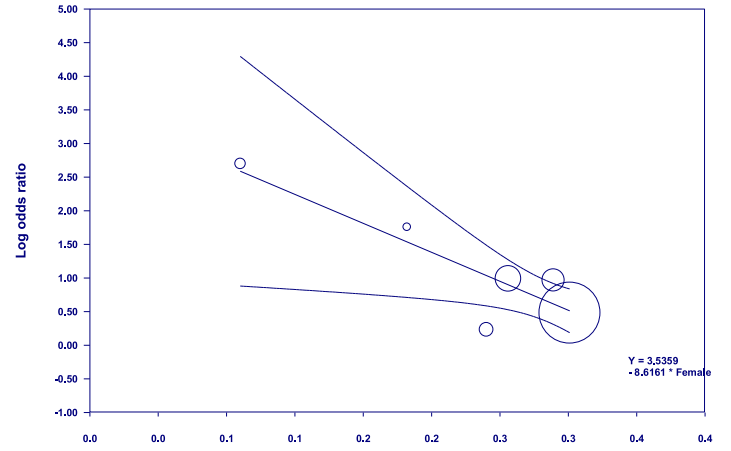
Supplemental Figure 8. Funnel plot of all studies included in the meta-analysis. The Standard Error (SE) of the log Odds Ratio of each study was plotted against the Odds Ratio for recurrent myocardial infraction. No skewed distribution was observed, suggesting no publication bias.

Mortality

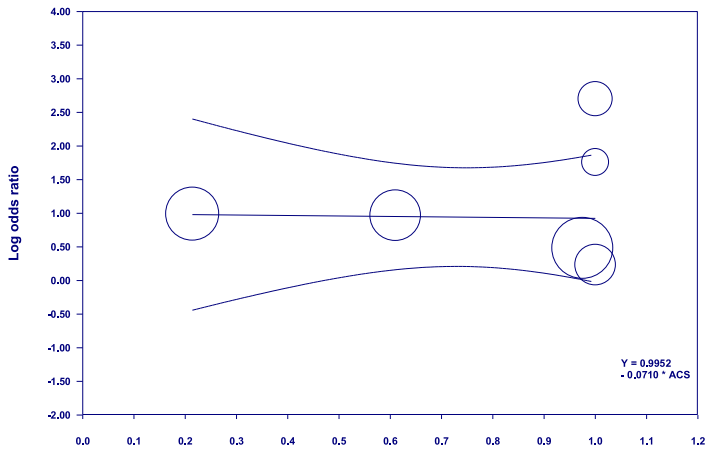
Regression of Log odds ratio on Age



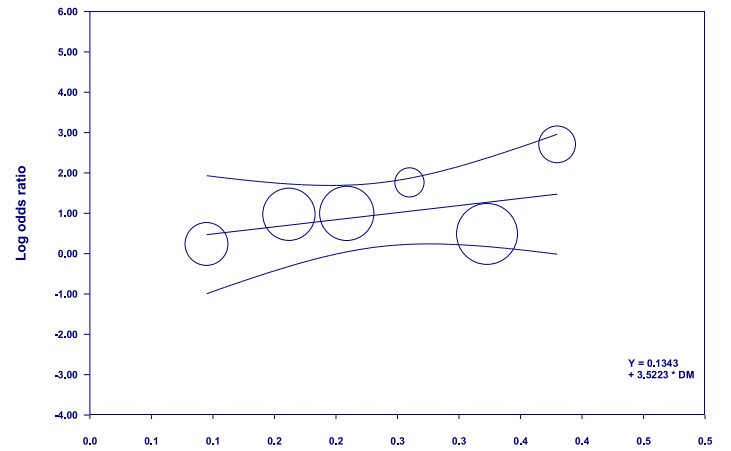
Regression of Log odds ratio on Female



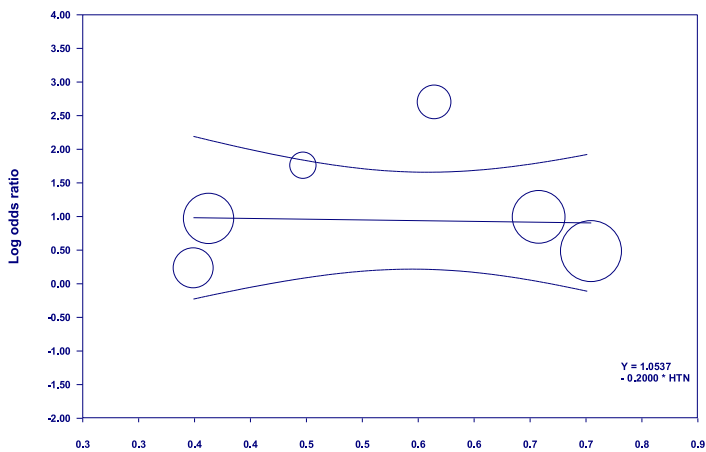
Regression of Log odds ratio on ACS



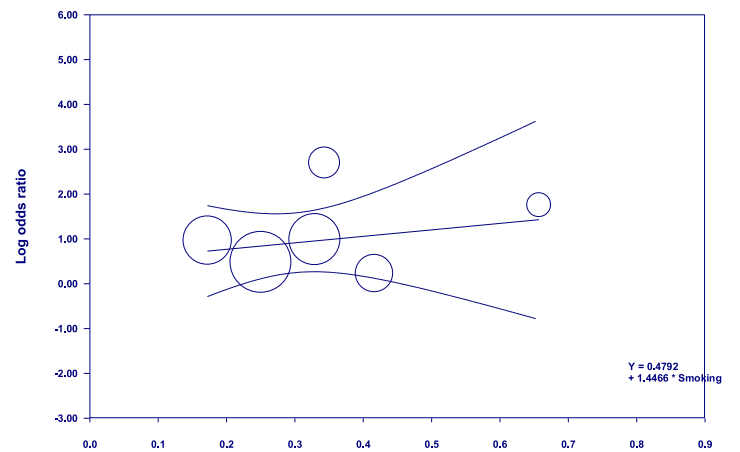
Regression of Log odds ratio on DM



Regression of Log odds ratio on HTN

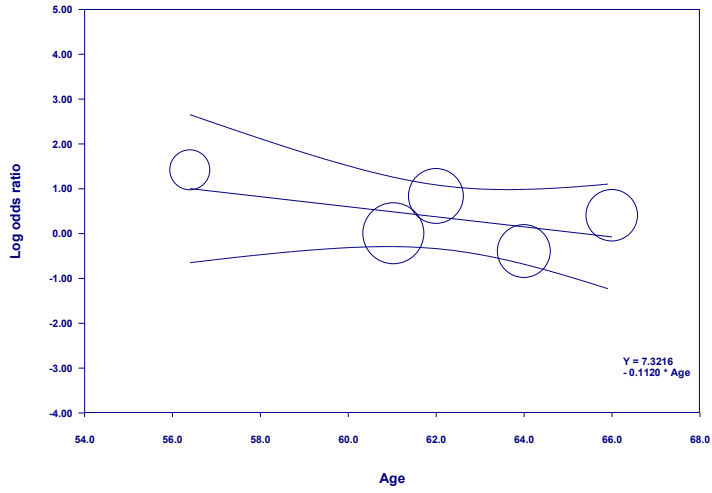


Regression of Log odds ratio on Smoking

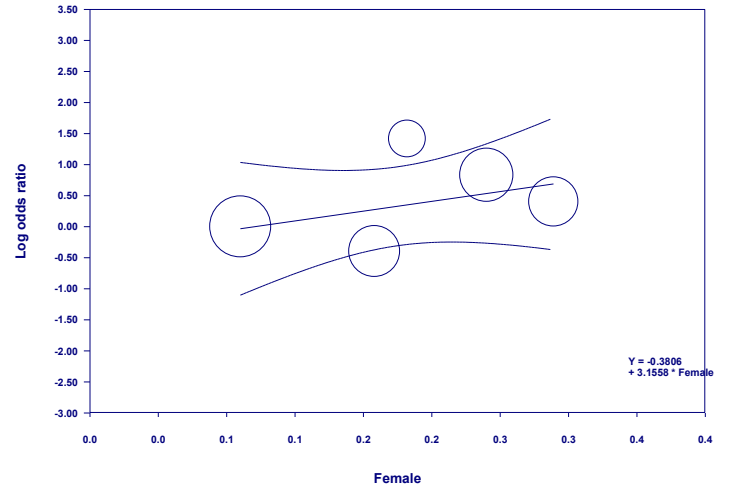


Major adverse cardiac events

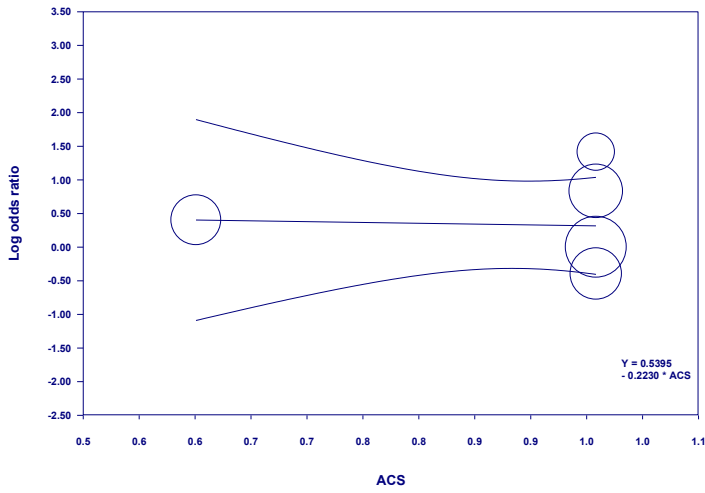
Regression of Log odds ratio on Age



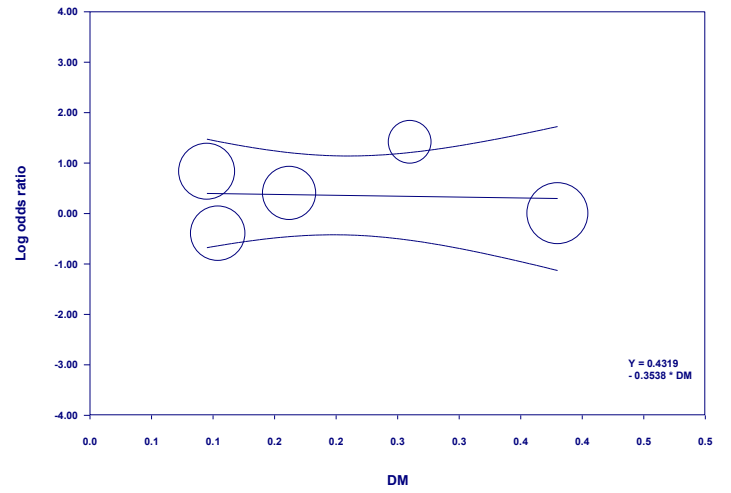
Regression of Log odds ratio on Female



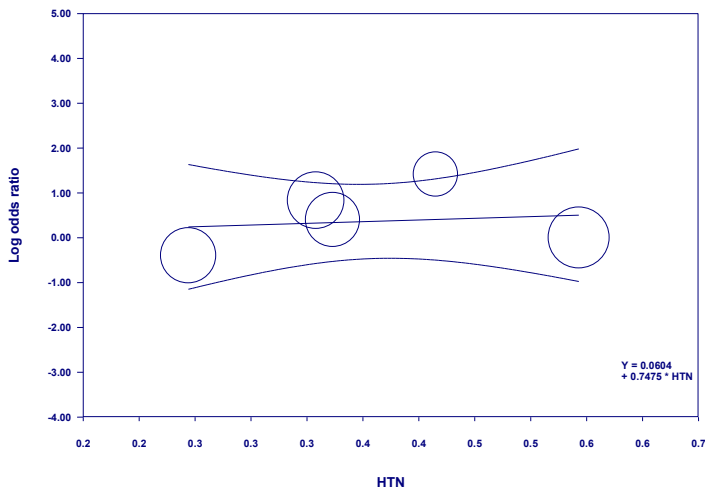
Regression of Log odds ratio on ACS



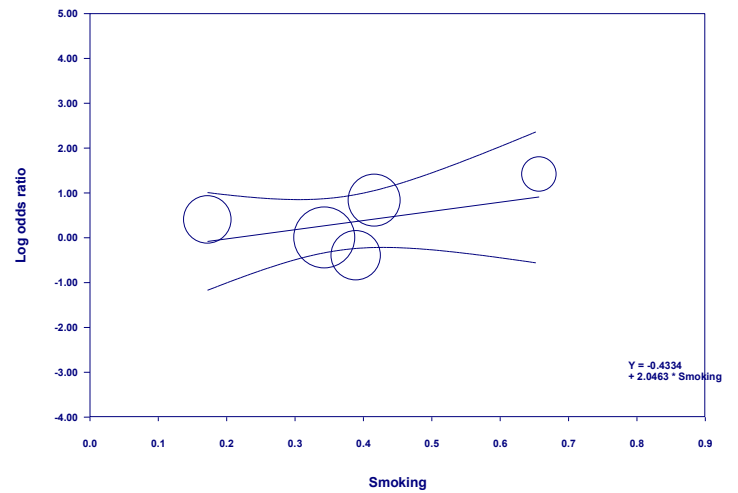
Regression of Log odds ratio on DM



Regression of Log odds ratio on HTN

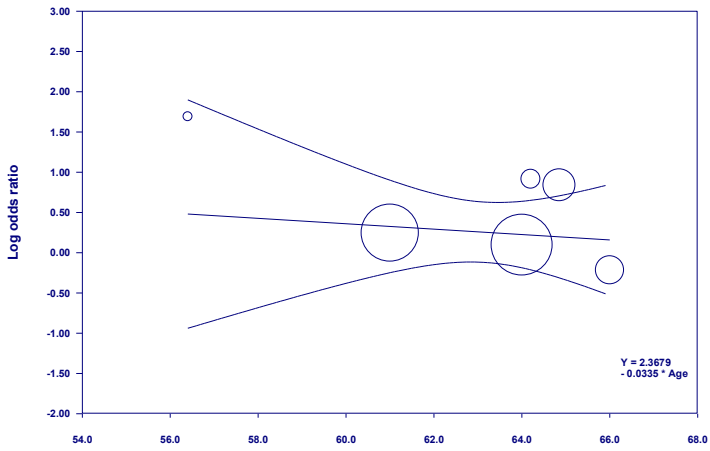


Regression of Log odds ratio on Smoking

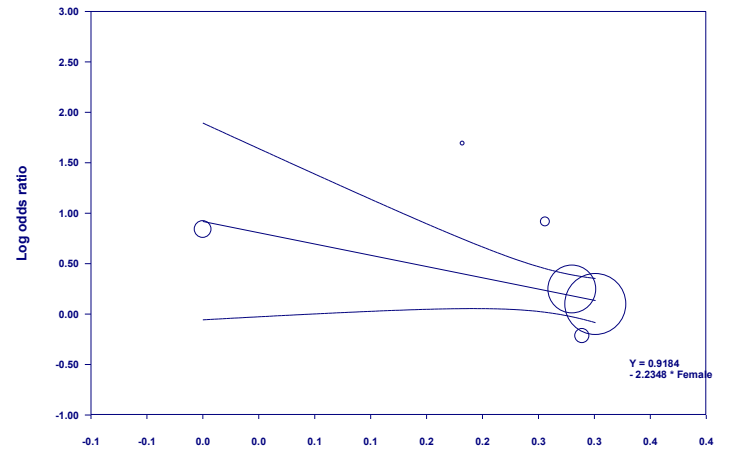


Recurrent myocardial infarction

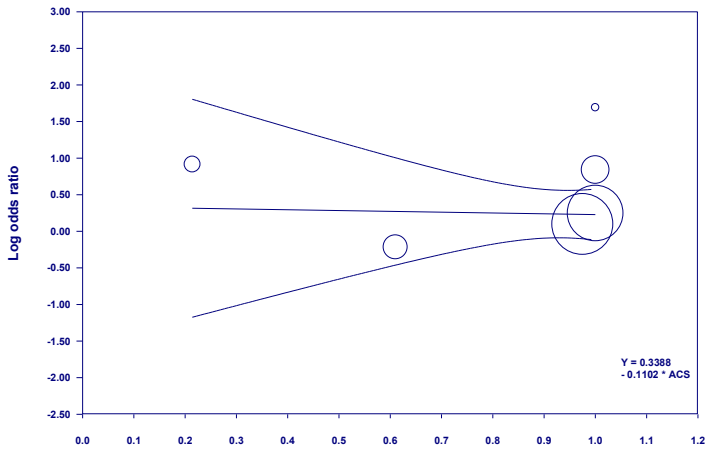
Regression of Log odds ratio on Age



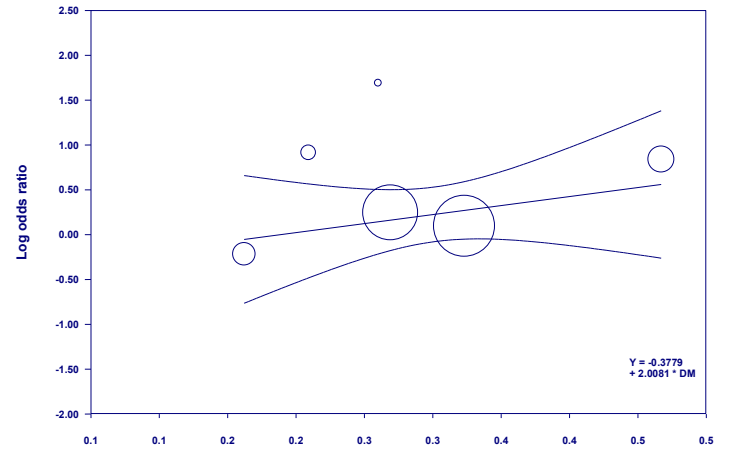
Regression of Log odds ratio on Female



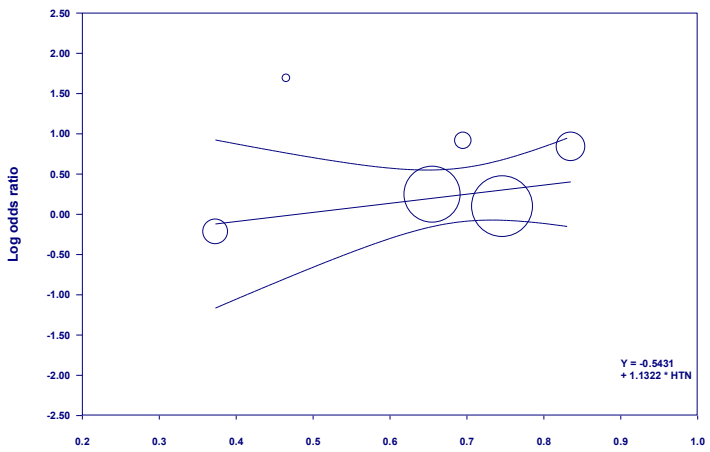
Regression of Log odds ratio on ACS



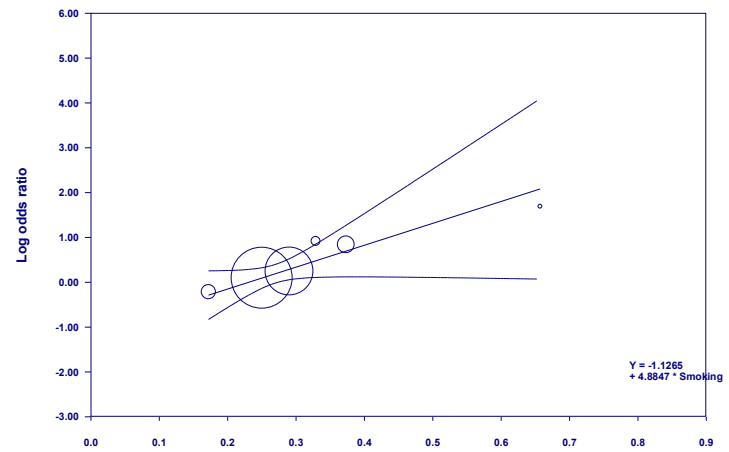
Regression of Log odds ratio on DM



Regression of Log odds ratio on HTN



Regression of Log odds ratio on Smoking



Study name

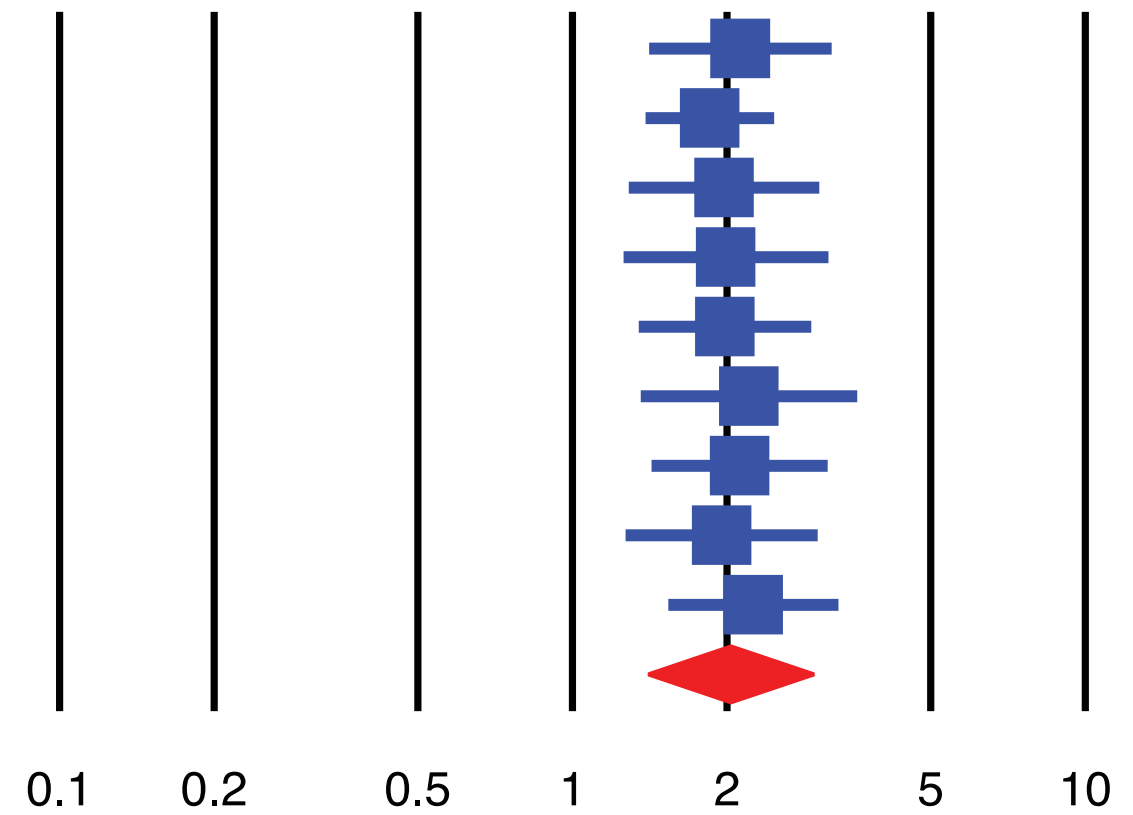
Statistics with study removed

Odds ratio (95% CI) with study removed

Point Lower limit Upper limit Z-Value p-Value

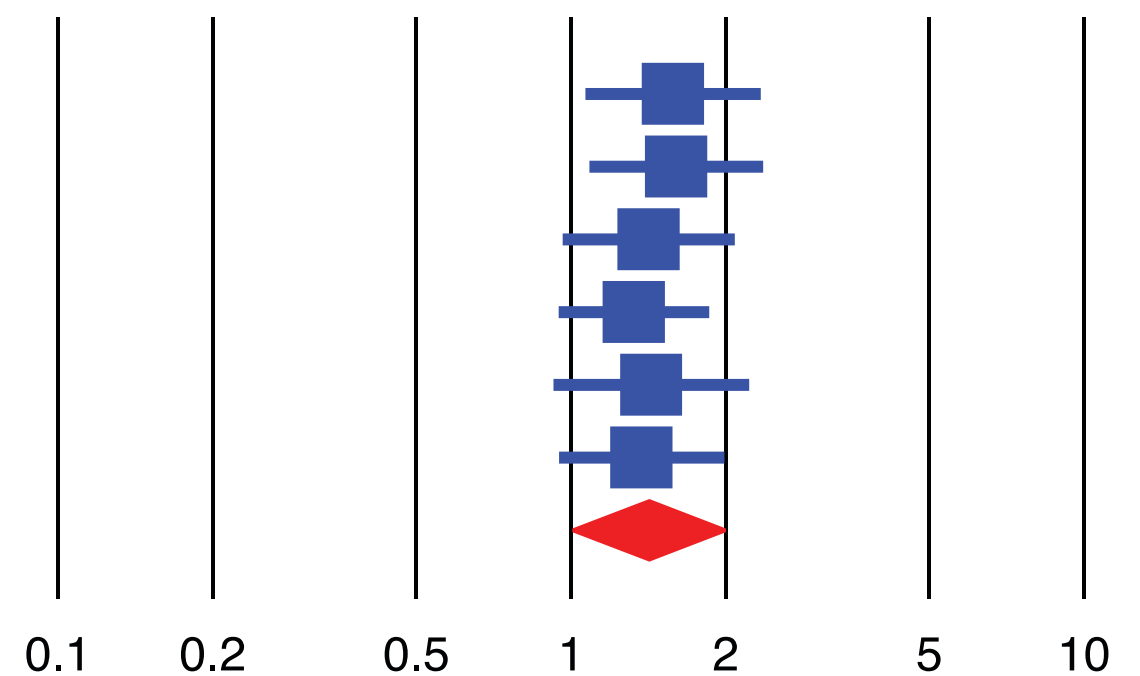
A. Mortality

Baldus 2003	2.125	1.423	3.175	3.682	0.000
Chang 2009	1.852	1.400	2.451	4.315	0.000
Eggers 2009	1.976	1.299	3.005	3.185	0.001
Mocatta 2007	1.992	1.269	3.126	2.997	0.003
Kaya 2012	1.984	1.358	2.898	3.543	0.000
Scirica BM 2011	2.209	1.371	3.559	3.257	0.001
Rahman 2016	2.119	1.440	3.117	3.813	0.000
Koch 2014	1.955	1.282	2.983	3.111	0.002
Apple 2007	2.253	1.552	3.270	4.271	0.000
	2.040	1.405	2.960	3.751	0.000



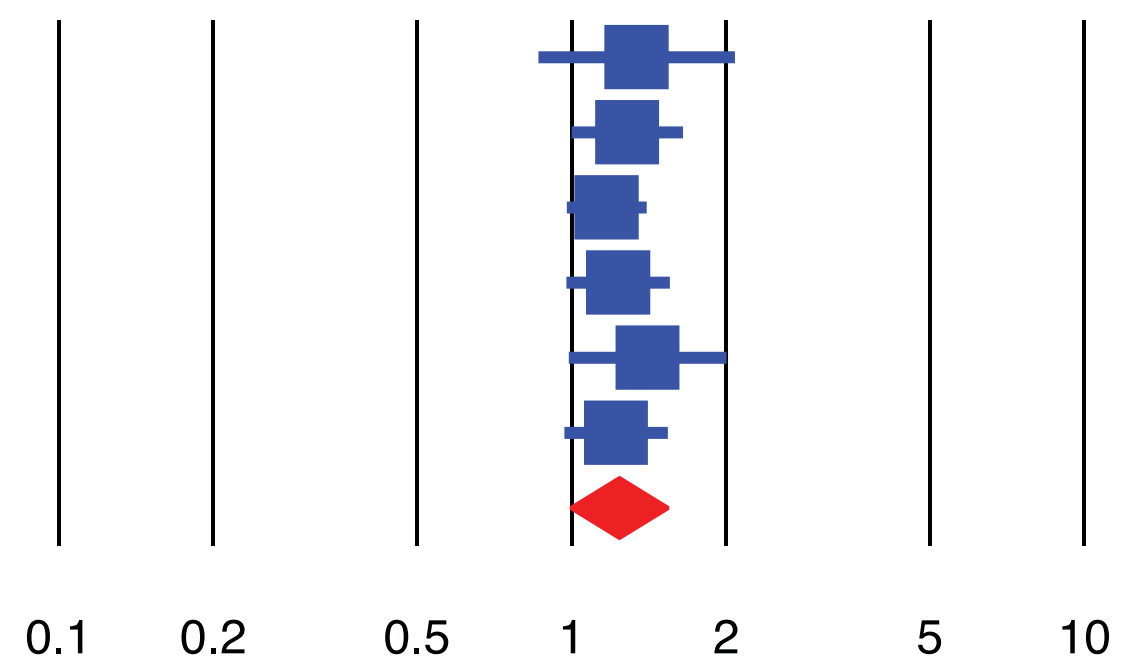
B. MACE

Chang 2009	1.581	1.075	2.325	2.330	0.020
Brügger 2008	1.605	1.096	2.349	2.432	0.015
Eggers 2009	1.418	0.973	2.067	1.815	0.069
Kaya 2012	1.326	0.954	1.842	1.680	0.093
Oemrawsingh 2011	1.434	0.933	2.204	1.642	0.101
Apple 2007	1.373	0.956	1.971	1.718	0.086
	1.421	1.010	1.999	2.014	0.044



C. Recurrent MI

Marrow 2008	1.340	0.870	2.063	1.328	0.184
Eggers 2009	1.284	1.009	1.634	2.032	0.042
Cavusoglu 2007	1.171	0.988	1.388	1.819	0.069
Kaya 2012	1.233	0.986	1.542	1.839	0.066
Scirica BM 2011	1.407	0.996	1.988	1.937	0.053
Koch 2014	1.221	0.977	1.527	1.753	0.080
	1.241	0.996	1.545	1.927	0.054



Favors low MPO

Favors high MPO

Supplemental Figure 4.

Study name

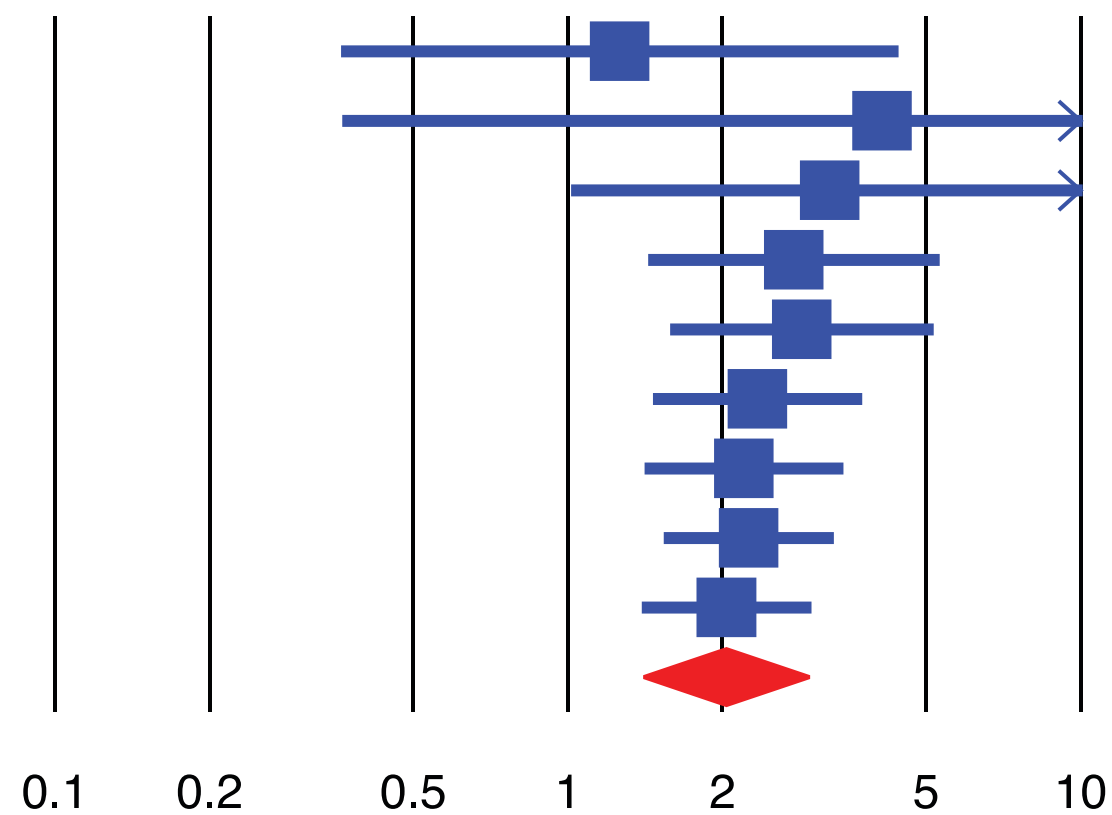
Cumulative statistics

Cumulative odds ratio (95% CI)

Point Lower limit Upper limit Z-Value p-Value

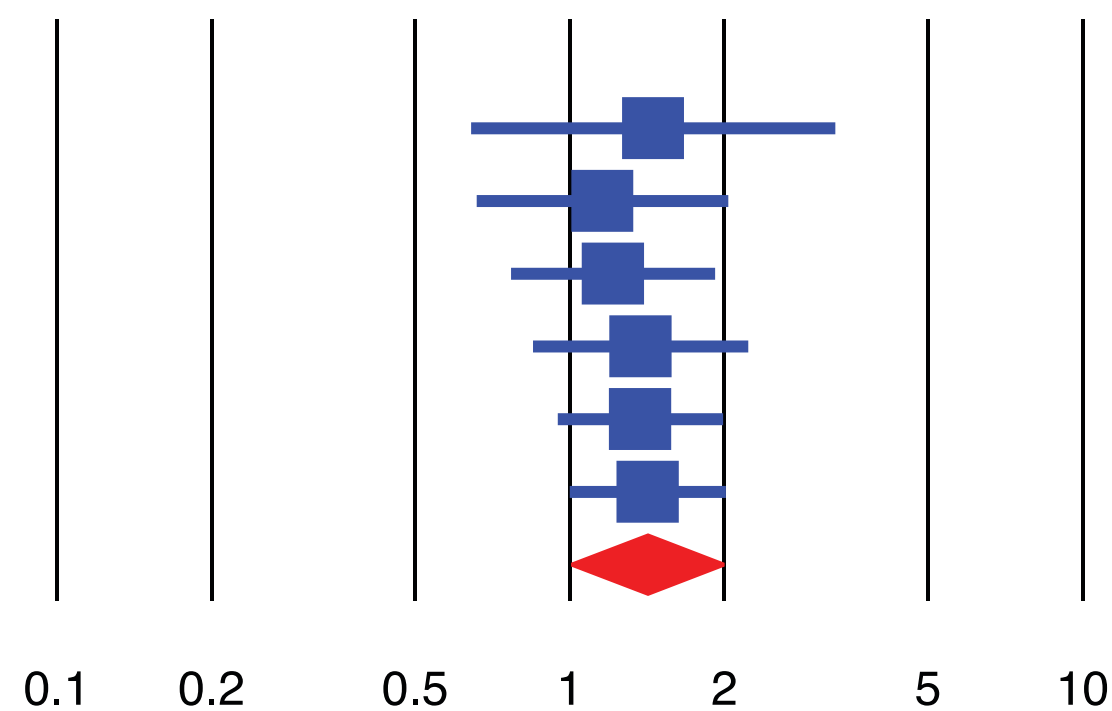
A. Mortality

Baldus 2003	1.263	0.365	4.372	0.368	0.713
Chang 2009	4.100	0.366	45.880	1.145	0.252
Eggers 2009	3.242	1.024	10.268	2.000	0.046
Mocatta 2007	2.760	1.448	5.262	3.084	0.002
Kaya 2012	2.861	1.597	5.125	3.533	0.000
Scirica BM 2011	2.345	1.479	3.719	3.625	0.000
Rahman 2016	2.207	1.424	3.419	3.543	0.000
Koch 2014	2.253	1.552	3.270	4.271	0.000
Apple 2007	2.040	1.405	2.960	3.751	0.000
	2.040	1.405	2.960	3.751	0.000



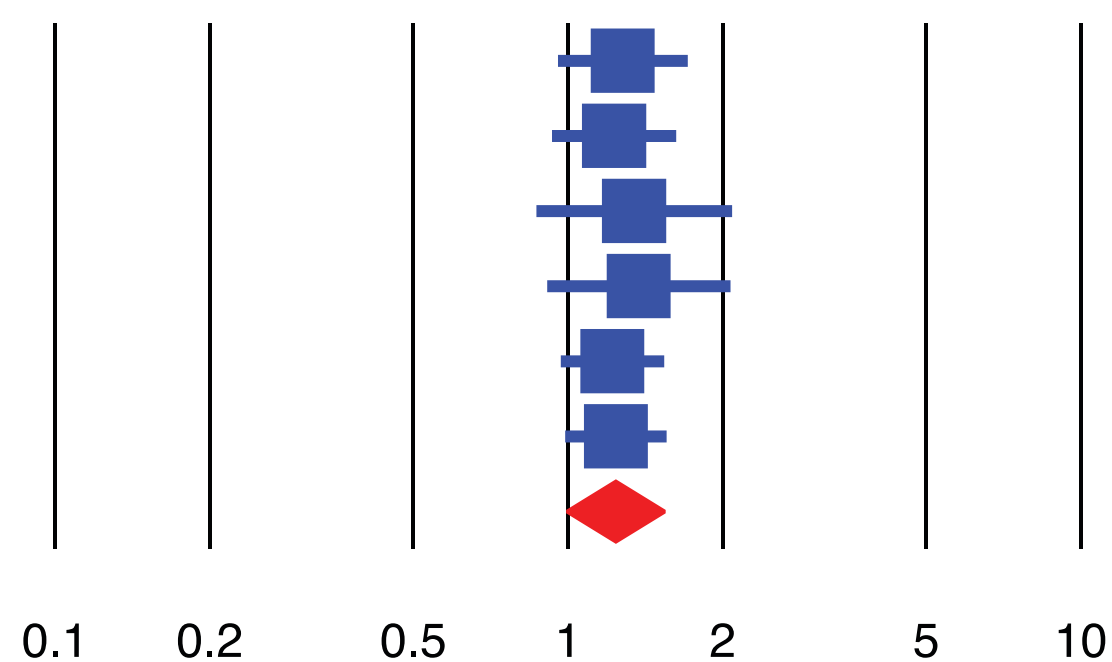
B. MACE

Chang 2009	1.454	0.647	3.267	0.907	0.364
Brügger 2008	1.158	0.664	2.020	0.517	0.605
Eggers 2009	1.215	0.775	1.904	0.850	0.395
Kaya 2012	1.374	0.855	2.208	1.315	0.189
Oemrawsingh 2011	1.373	0.956	1.971	1.718	0.086
Apple 2007	1.421	1.010	1.999	2.014	0.044
	1.421	1.010	1.999	2.014	0.044



C. Recurrent MI

Marrow 2008	1.280	0.965	1.696	1.715	0.086
Eggers 2009	1.231	0.940	1.612	1.510	0.131
Cavusoglu 2007	1.347	0.875	2.072	1.353	0.176
Kaya 2012	1.375	0.920	2.057	1.553	0.120
Scirica BM 2011	1.221	0.977	1.527	1.753	0.080
Koch 2014	1.241	0.996	1.545	1.927	0.054
	1.241	0.996	1.545	1.927	0.054

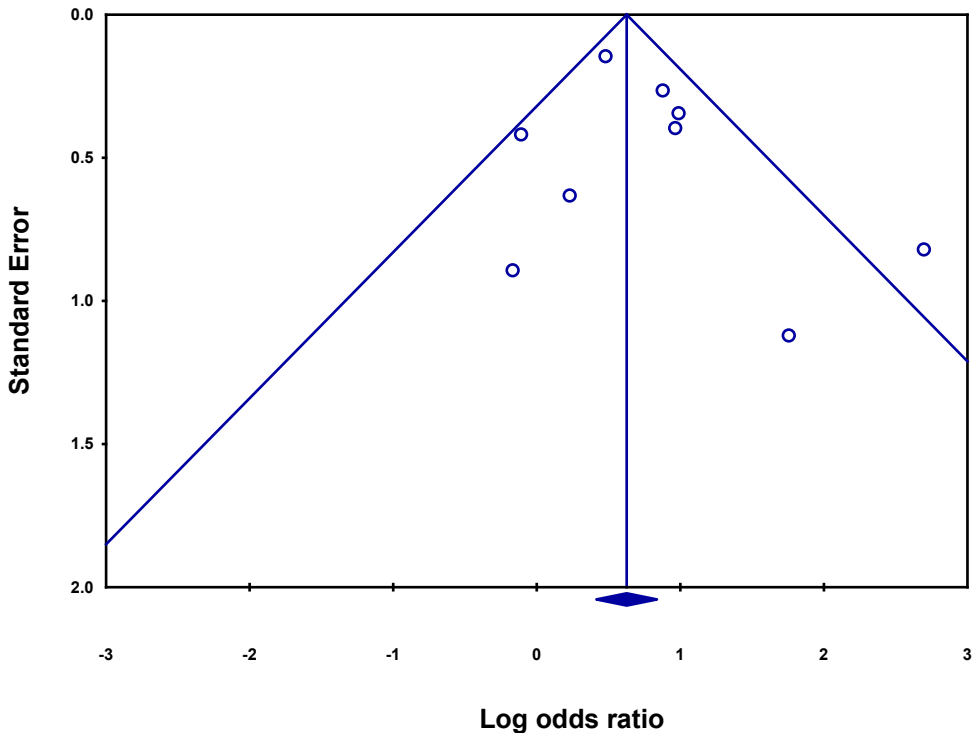


Favors low MPO Favors high MPO

Supplemental Figure 5.

Mortality

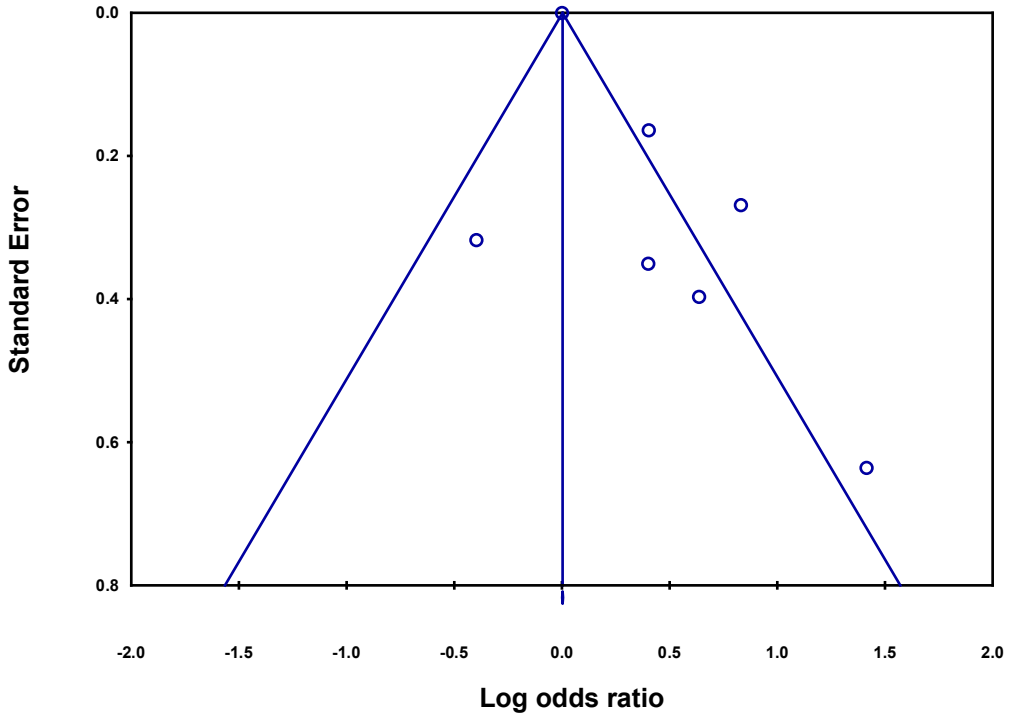
Funnel Plot of Standard Error by Log odds ratio



Supplemental Figure 6.

Major adverse cardiac events

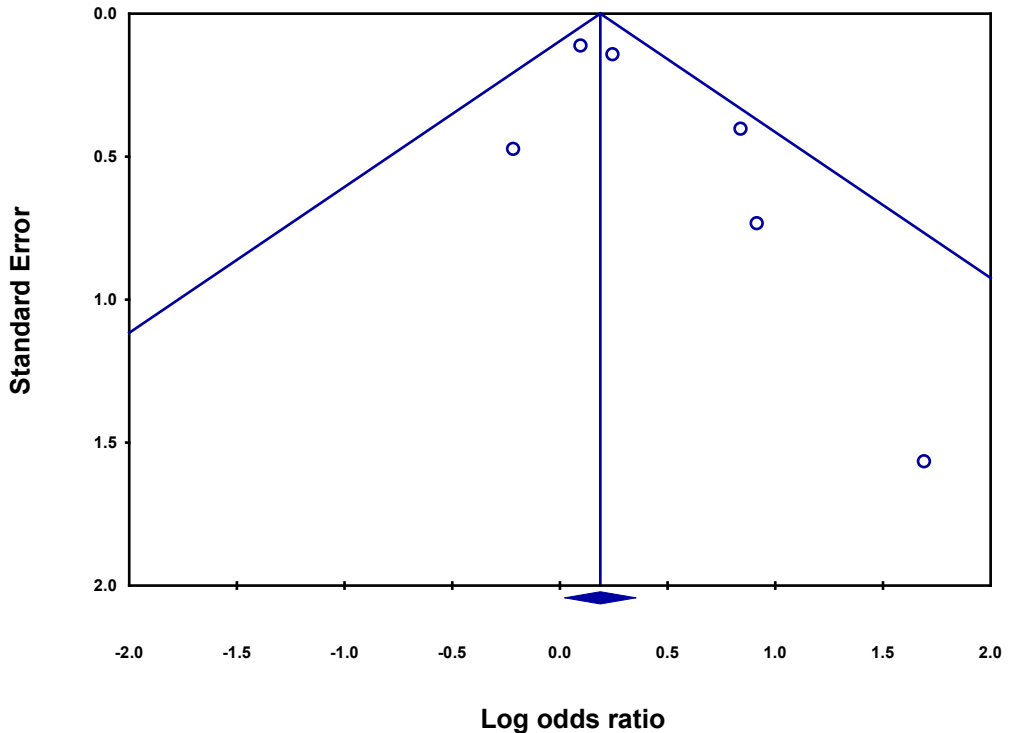
Funnel Plot of Standard Error by Log odds ratio



Supplemental Figure 7.

Recurrent myocardial infarction

Funnel Plot of Standard Error by Log odds ratio



Supplemental Figure 8.