

The Impact of Acetyl-Salicylic Acid on Major Arterial and Venous Complications in Patients undergoing Noncardiac Surgery– POISE 2 Trial

Purpose: Noncardiac surgery places patients at increased risk of prothrombotic states and vascular complications. MI is the most common major complication in persons in the perioperative period. Currently there is much variability in the perioperative administration of aspirin in persons undergoing noncardiac surgery.

Question to answer: Can aspirin administration for non-users and continuation of aspirin in current users reduce the risk of perioperative vascular complications such as MI?

Trial Design	2 X 2 Factorial design (this study also included a clonidine arm reported separately). Patients were assigned to one of four groups) ASA + clonidine, ASA + clonidine placebo, ASA placebo + clonidine, or ASA placebo + clonidine placebo). n=10,011; n = 5628 new initiation of ASA, n = 4383 continuation on ASA. Starting dose 200mg, then 100mg daily for 30 days post op.				
Primary Endpoint	Composite of death and nonfatal MI, cardiac revascularization procedures, pulmonary emboli, or DVT at 30 day in non-cardiac surgery patients				
Trial Results		Aspirin	Placebo	Hazard Ratio (95%)	P value
	Primary Outcome Death or MI Events	N= 4998 651 (7.0%)	N=5012 339 (7.1%)	0.99 with aspirin (0.86-1.15)	0.92

Take Away – Peri-Operative aspirin administration does not decrease postop non-fatal MI or death. It did increase the risk of major bleeding (4.6% in the ASA group, 3.7% in the placebo group (HR= 1.23; 95% CI, 1.01-1.49; p=0.04)