

CABG versus PCI in subgroups

Elderly and Left ventricular dysfunction

- Elderly patients likely to present with advanced coronary disease and co-morbidities:
 - more-complex and often surgical revascularization.
- Functional outcomes more relevant to assess
 - Compared to typical outcomes as death or myocardial infarction
- Minimally invasive coronary revascularization techniques
 - in elderly likely to have the greatest applicability and benefit
- Off pump surgery higher benefit?
 - well designed randomized trial
- Neurocognitive impairment after CABG versus PCI?

Medical treatment after CABG: non-prescription is high

SYNTAX study:

Medication (% of patients)	PCI	CABG	<i>P</i>
Aspirin 12 months after randomisation	91.2	84.3	<0.001
Other antiplatelet drug	72.8	17.2	<0.001
Statin	86.7	74.5	<0.001
Beta-blocker	81.3	78.6	0.17
ACE inhibitor	55.1	44.6	<0.001
Calcium-channel blocker	25.8	18.4	<0.001
Angiotensin II–receptor antagonist	13.3	7.0	<0.001

Cardiovascular Mortality reduction with Post-operative medical treatment

Intervention	Cardiovascular Mortality Reduction at 5 Years (%)	Reference
CABG	39	1 ^a
Statin drug	30	4–7 ^b
Aspirin	17	9 ^c
ACE inhibitor	25	12
Beta-blocker	23	14, 15 ^d

- Risk reduction drug therapy:
 - reduce the frequency of reintervention
 - extend survival after CABG
- A broad range of antithrombin and antiplatelet agents is available to minimize procedure-related thrombotic and bleeding risks in a patient-tailored fashion.
 - Reduction of post-operative stroke
 - Reduction Saphenous vein graft thrombosis

Long-term Risk – benefit analysis PCI versus CABG

- Long-term patency of a SIMA graft, 90% up to 10 years after CABG
- Angiographic studies demonstrate markedly superior patency of BIMA grafts compared with vein grafts
- Longer follow-up needed of patients that were randomized CABG versus PCI with DES.

Proximal LAD stenosis with 1, 2 vessel disease

- Single-vessel, proximal LAD disease survival similar CABG versus PCI
- CABG more effective in relieving angina and fewer repeat revascularizations
- Old data, no recent studies not DES-PCI.

