Dual Antiplatelet Therapy

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Percutaneous coronary intervention for stable ischemic heart disease is indicated primarily in patients with angina that persists despite optimal antianginal therapy.

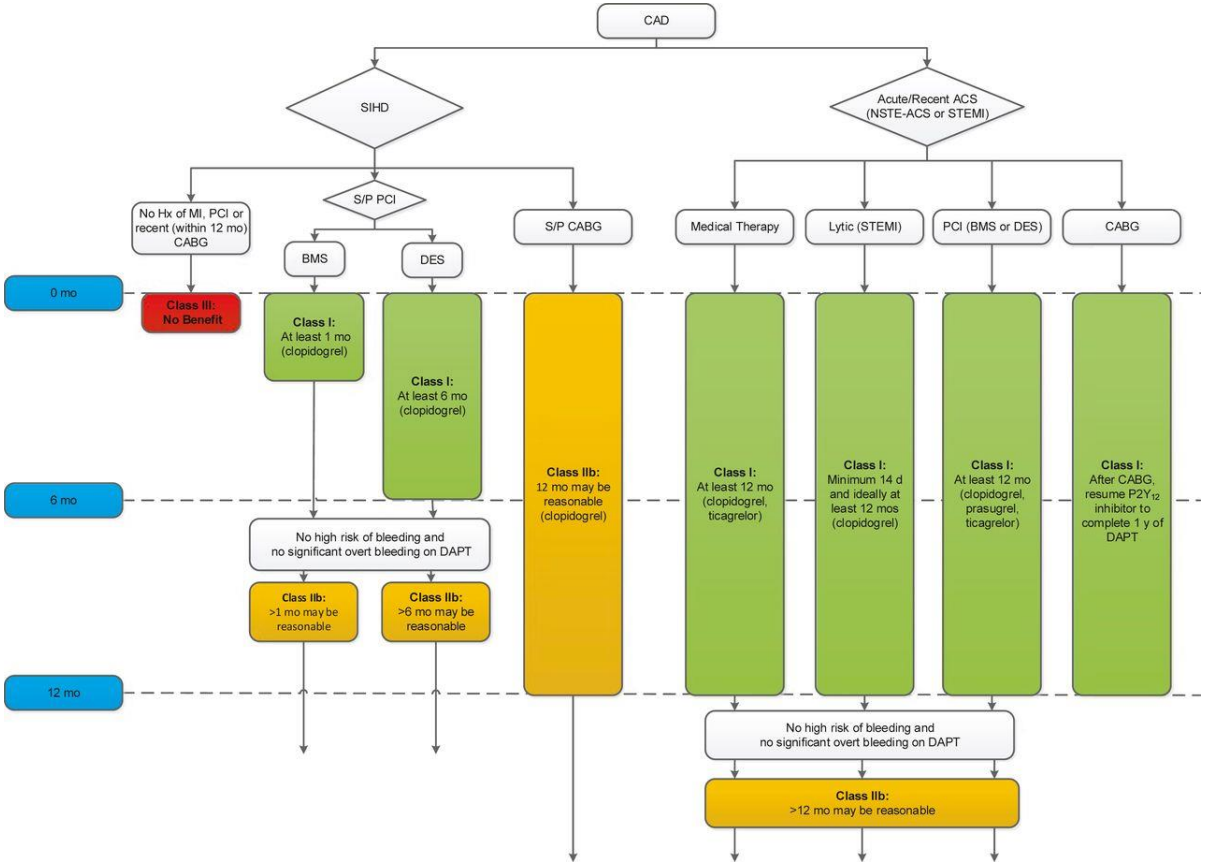
Percutaneous intervention improves the prognosis in acute coronary syndromes, whereas its impact on overall survival in stable ischemic heart disease is not well documented.

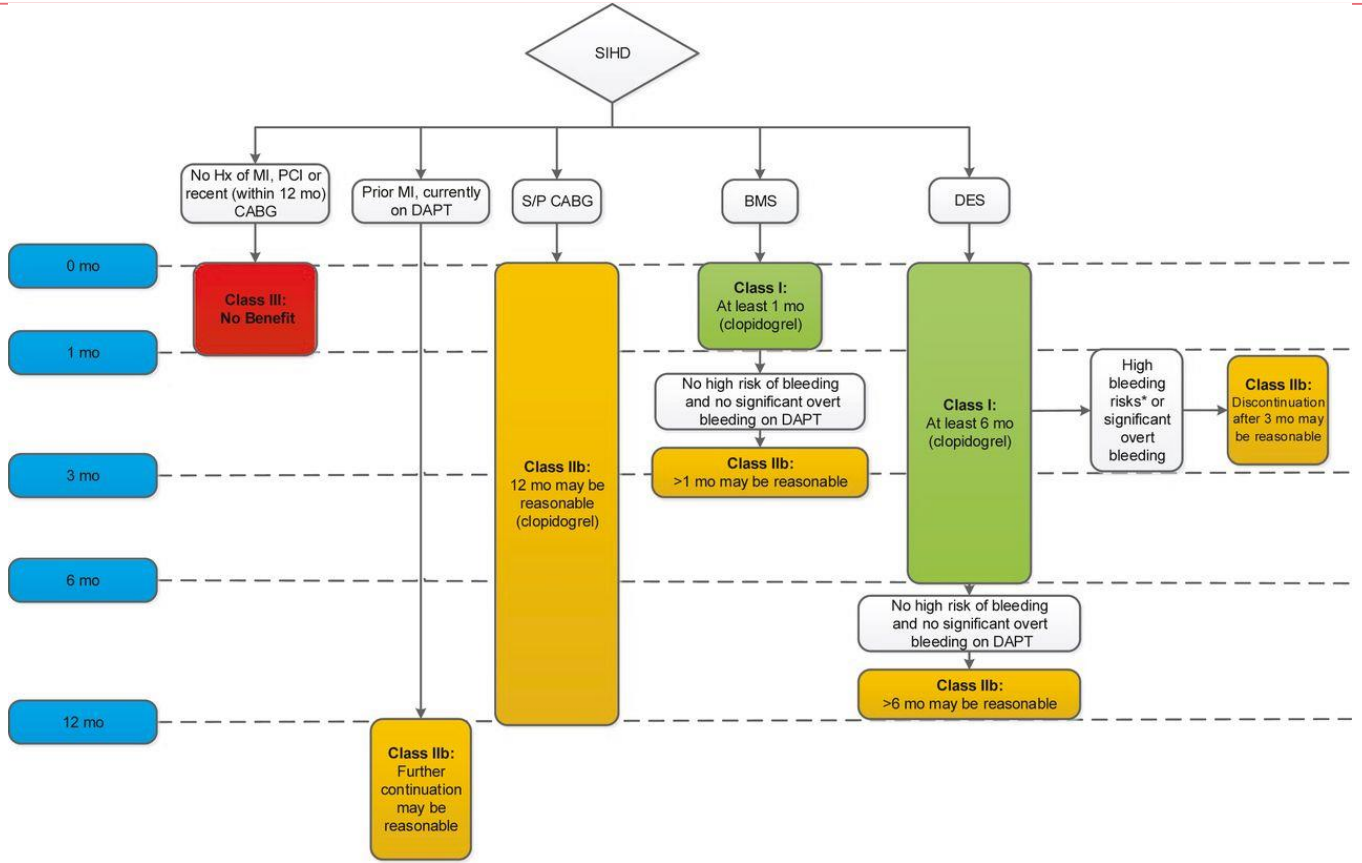
DAPT is mandatory early after drug-eluting stent placement

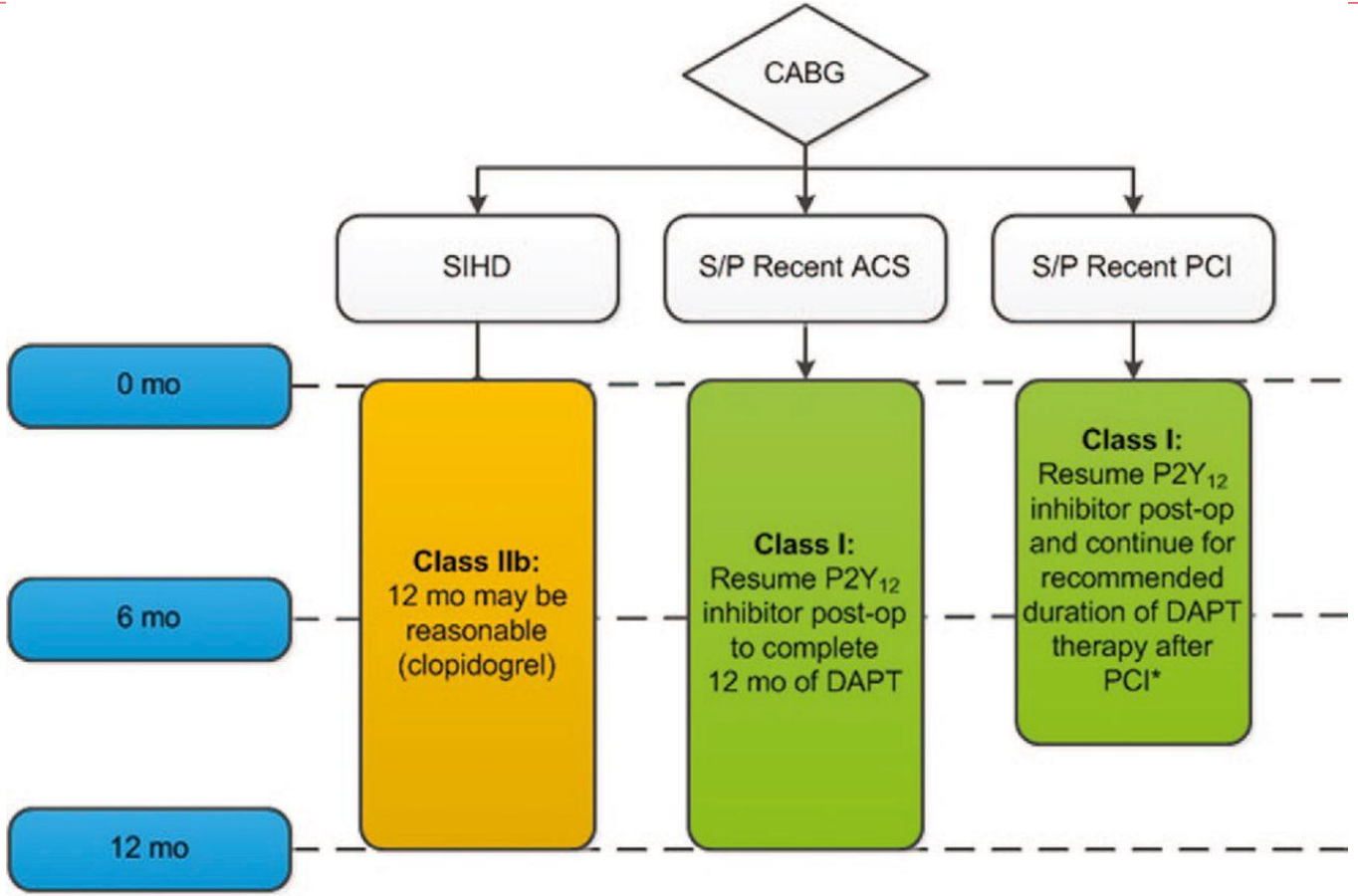
Endothelialization of the stent normally occurs during the first 7 to 30 days after placement(mortality rate of acute stent thrombosis is between 9% and 45%)

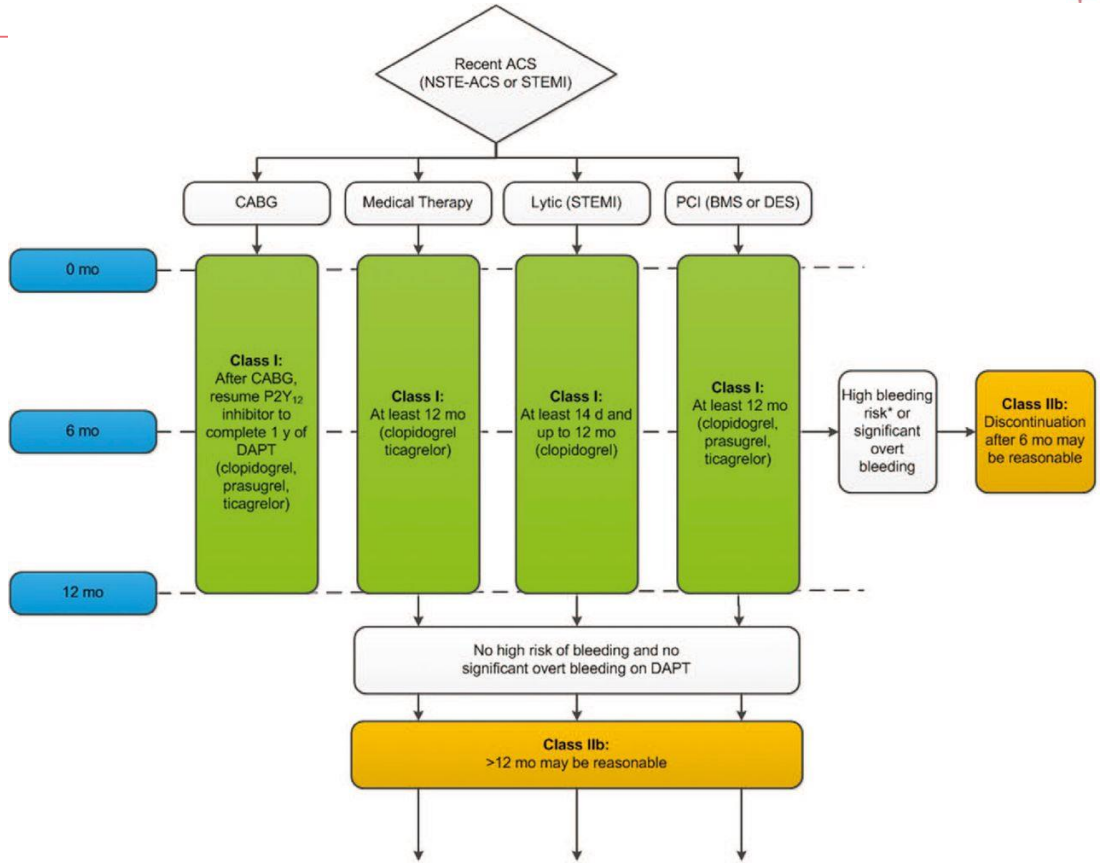
Aspirin 75 to 100 mg has been shown to be effective as secondary prevention of atherosclerotic disease and is recommended lifelong in this clinical setting.

Levine GN, Bates ER, Bittl JA, et al. 2016 ACC/AHA guideline focused \update on duration of dual antiplatelet therapy in patients with coronary artery disease: a report of the American College of Cardiol- ogy/American Heart Association Task Force on Clinical PracticeGuidelines. Circulation 2016; 134


CAD
SIHD
Acute/Recent ACS (NSTE-ACS or STEMI)
No Hx of MI, PCI or recent (within 12 mo) CABG
S/P PCI
S/P CABG
Medical Therapy
Lytic (STEMI)
PCI (BMS or DES)
CABG
BMS
DES
0 mo
6 mo
12 mo
Class III: No Benefit
Class I: At least 1 mo (clopidogrel)
Class I: At least 6 mo (clopidogrel)
Class IIb: 12 mo may be reasonable (clopidogrel)
Class I: At least 12 mo (clopidogrel, ticagrelor)
Class I: Minimum 14 d and ideally at least 12 mos (clopidogrel)
Class I: At least 12 mo (clopidogrel, prasugrel, ticagrelor)
Class I: After CABG, resume P2Y12 inhibitor to complete 1 y of DAPT
No high risk of bleeding and no significant overt bleeding on DAPT
Class IIb: >1 mo may be reasonable
Class IIb: >6 mo may be reasonable
No high risk of bleeding and no significant overt bleeding on DAPT
Class IIb: >12 mo may be reasonable


SIHD
No Hx of MI, PCI or recent (within 12 mo) CABG
Prior MI, currently on DAPT
S/P CABG
BMS
DES
0 mo
1 mo
3 mo
6 mo
12 mo
Class III: No Benefit
Class IIb: Further continuation may be reasonable
Class IIb: 12 mo may be reasonable (clopidogrel)
Class I: At least 1 mo (clopidogrel)
No high risk of bleeding and no significant overt bleeding on DAPT
Class IIb: >1 mo may be reasonable
Class I: At least 6 mo (clopidogrel)
High bleeding risks* or significant overt bleeding
Class IIb: Discontinuation after 3 mo may be reasonable
No high risk of bleeding and no significant overt bleeding on DAPT
Class IIb: >6 mo may be reasonable


CABG
SIHD
S/P Recent ACS
S/P Recent PCI
0 mo
6 mo
12 mo
Class IIb: 12 mo may be reasonable (clopidogrel)
Class I: Resume P2Y12 inhibitor post-op to complete 12 mo of DAPT
Class I: Resume P2Y12 inhibitor post-op and continue for recommended duration of DAPT therapy after PCI*


Recent ACS
(NSTE-ACS or STEMI)
CABG
Medical Therapy
Lytic (STEMI)
PCI (BMS or DES)
0 mo
6 mo
12 mo
Class I:
After CABG, resume P2Y12 inhibitor to complete 1 y of DAPT (clopidogrel, prasugrel, ticagrelor)
Class I:
At least 12 mo (clopidogrel ticagrelor)
Class I:
At least 14 d and up to 12 mo (clopidogrel)
Class I:
At least 12 mo (clopidogrel, prasugrel, ticagrelor)
High bleeding risk* or significant overt bleeding
Class IIb:
Discontinuation after 6 mo may be reasonable
No high risk of bleeding and no significant overt bleeding on DAPT
Class IIb:
>12 mo may be reasonable

Remember: The evidence for DAPT in stable ischemic disease is based on clopidogrel, with only limited data on ticagrelor.

SaintFrancis Health System

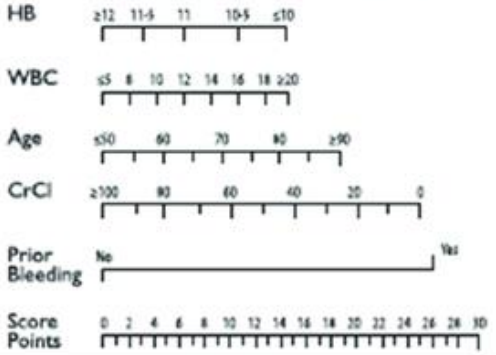
TABLE 1

Risk factors for ischemia, stent thrombosis, and bleeding

Ischemia[a]	Stent thrombosis[a]	Bleeding[b]
Advanced age	Acute coronary syndrome at presentation	History of bleeding
Acute coronary syndrome at presentation	Diabetes mellitus	Diabetes mellitus
Previous myocardial infarction	Left ventricular ejection fraction < 40%	Female
Extensive coronary artery disease	First-generation drug-eluting stent	Advanced age
Diabetes mellitus	Stent undersizing	Low body weight
Chronic kidney disease	Stent underdeployment	Chronic kidney disease
	Small stent diameter	Anticoagulation
	Greater stent length	Chronic nonsteroidal anti-inflammatory drug or steroid therapy
	Bifurcation stents	Anemia
	In-stent restenosis	

[a] These factors favor consideration of a longer duration of dual antiplatelet therapy.
[b] These factors favor consideration of a shorter duration of dual antiplatelet therapy.

DAPT Score

	PRECISE-DAPT score[38]	DAPT score[11]	
Time of use	At the time of coronary stenting	After 12 months of uneventful DAPT	
DAPT duration strategies assessed	Short DAPT (3–6 months) vs. Standard/long DAPT (12–24 months)	Standard DAPT (12 months) vs. Long DAPT (30 months)	
Score calculation*		Age ≥75 65 to <75 <65 Cigarette smoking Diabetes mellitus MI at presentation Prior PCI or prior MI Paclitaxel-eluting stent Stent diameter <3 mm CHF or LVEF <30% Vein graft stent	 –2 pt –1 pt 0 pt +1 pt +1 pt +1 pt +1 pt +1 pt +1 pt +2 pt +2 pt
Score range	0 to 100 points	–2 to 10 points	
Decision making cut-off suggested	Score ≥25 → Short DAPT Score <25 → Standard/long DAPT	Score ≥2 → Long DAPT Score <2 → Standard DAPT	
Calculator	www.precisedaptscore.com	www.daptstudy.org	

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Prevention of Bleeding in Patients with Atrial Fibrillation Undergoing PCI

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CONCLUSIONS

In participants with atrial fibrillation undergoing PCI with placement of stents, the administration of either low-dose rivaroxaban plus a $P2Y_{12}$ inhibitor for 12 months or very-low-dose rivaroxaban plus DAPT for 1, 6, or 12 months was associated with a lower rate of clinically significant bleeding than was standard therapy with a vitamin K antagonist plus DAPT for 1, 6, or 12 months. The three groups had similar efficacy rates, although the observed broad confidence intervals diminish the surety of any conclusions regarding efficacy. (Funded by Janssen Scientific Affairs and Bayer Pharmaceuticals; PIONEER AF-PCI ClinicalTrials.gov number, NCT01830543.)

Rivaroxaban 15 mg or dabigatran 110/150 mg BID in dual therapy with P2Y12 inhibitor, mainly clopidogrel (but without aspirin) is safer in terms of bleeding risk than triple therapy with VKA, clopidogrel, and low-dose aspirin (PIONEER AF-PCI

Triple Scares Me!