Anterior STIMI in Patient with Aortic Valve Prosthesis
what to do?

Dr. Khaled Refaat, MD, FEgSC
Beniseuf University Hospital

Patient Data:

- 38 years old male patient
- History of Aortic valve replacement 12 years ago
- Not diabetic nor HTN
- Current smoker
- No family history of Coronary Artery Disease
- Presenting by Acute chest tightness and diaphoresis
- ECG was done in the ER and confirmed an Anterior STIMI
- The patient was on VKA, his last INR was 1.7

Current Problem:

Bleeding risk with OAC + Dual Antiplatelet

Strategies to avoid bleeding complications in patients treated with oral anticoagulant

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- Assess ischaemic and bleeding risks using validated risk predictors (e.g. CHA_2DS_2-VASc, ABC, HAS-BLED) with a focus on modifiable risk factors.
- Keep triple therapy duration as short as possible; dual therapy after PCI (oral anticoagulant and clopidogrel) to be considered instead of triple therapy.
- Consider the use of NOACs instead of VKA when NOACs are not contra-indicated.
- Consider a target INR in the lower part of the recommended target range and maximize time in therapeutic range (i.e. >65–70%) when VKA is used.
- Consider the lower NOAC regimen tested in approval studies and apply other NOAC regimens based on drug-specific criteria for drug accumulation.
- Clopidogrel is the $P2Y_{12}$ inhibitor of choice.
- Use low-dose (≤100 mg daily) aspirin.
- Routine use of PPIs.

www.escardio.org/guidelines

2017 ESC Focused Update on DAPT in Coronary Artery Disease, developed in collaboration with EACTS (European Heart Journal 2017 - doi:10.1093/eurheartj/ehx419)

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Measures to minimize bleeding while on dual antiplatelet therapy

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Recommendations	Class	Level
Radial over femoral access is recommended for coronary angiography and PCI if performed by an expert radial operator.	I	A
In patients treated with DAPT, a daily aspirin dose of 75–100 mg is recommended.	I	A
A PPI in combination with DAPT is recommended.	I	B
Routine platelet function testing to adjust antiplatelet therapy before or after elective stenting is not recommended.	III	A

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High-risk features of stent-driven recurrent ischaemic events

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- Prior stent thrombosis on adequate antiplatelet therapy.
- Stenting of the last remaining patent coronary artery.
- Diffuse multivessel disease especially in diabetic patients.
- Chronic kidney disease (i.e. creatinine clearance <60 mL/min).
- At least three stents implanted.
- At least three lesions treated.
- Bifurcation with two stents implanted.
- Total stent length >60 mm.
- Treatment of a chronic total occlusion.

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Unfavourable patient profile for a combination of oral anticoagulant and antiplatelet therapy

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- Short life expectancy.
- Ongoing malignancy.
- Poor expected adherence.
- Poor mental status.
- End stage renal failure.
- Advanced age.
- Prior major bleeding/prior haemorrhagic stroke.
- Chronic alcohol abuse.
- Anaemia.
- Clinically significant bleeding on dual antithrombotic therapy.

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Doses of antiplatelet and anticoagulant co-therapies in primary PCI *(continued)*

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Doses of antiplatelet and parenteral anticoagulant co-therapies in primary PCI	
Parenteral anticoagulant therapies	
UFH	70-100 IU/kg i.v. bolus when no GP IIb/IIIa inhibitor is planned 50-70 IU/kg i.v. bolus with GP IIb/IIIa inhibitors.
Enoxaparin	0.5 mg/kg i.v. bolus.
Bivalirudin	0.75 mg/kg i.v. bolus followed by i.v. infusion of 1.75 mg/kg/hour for up to 4 hours after the procedure.

2017 ESC Guidelines for the Management of AMI-STEMI (European Heart Journal 2017 - doi:10.1093/eurheartj/ehx095)

Dual antiplatelet therapy duration in patients with indication for oral anticoagulation

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Recommendations	Class	Level
It is recommended to administer periprocedurally aspirin and clopidogrel in patients undergoing coronary stent implantation.	I	C
In patients treated with coronary stent implantation, triple therapy with aspirin, clopidogrel and OAC should be considered for 1 month, irrespective of the type of stent used.	IIa	B
Triple therapy with aspirin, clopidogrel and OAC for longer than 1 month and up to 6 months should be considered in patients with high ischaemic risk due to ACS or other anatomical/procedural characteristics, which outweigh the bleeding risk.	IIa	B
Dual therapy with clopidogrel 75 mg/day and OAC should be considered as an alternative to 1-month triple antithrombotic therapy in patients in whom the bleeding risk outweighs the ischaemic risk.	IIa	A

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Dual antiplatelet therapy duration in patients with indication for oral anticoagulation *(continued)*

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Recommendations	Class	Level
Discontinuation of antiplatelet treatment in patients treated with OAC should be considered at 12 months.	IIa	B
In patients with an indication for VKA in combination with aspirin and/or clopidogrel, the dose intensity of VKA should be carefully regulated with a target INR in the lower part of the recommended target range and a time in the therapeutic range >65–70%.	IIa	B
When a NOAC is used in combination with aspirin and/or clopidogrel, the lowest approved dose effective for stroke prevention tested in AFib trials should be considered.	IIa	C
When rivaroxaban is used in combination with aspirin and/ or clopidogrel, rivaroxaban 15 mg *q.d.* may be used instead of rivaroxaban 20 mg *q.d.*	IIb	B
The use of ticagrelor or prasugrel is not recommended as part of triple antithrombotic therapy with aspirin and OAC.	III	C

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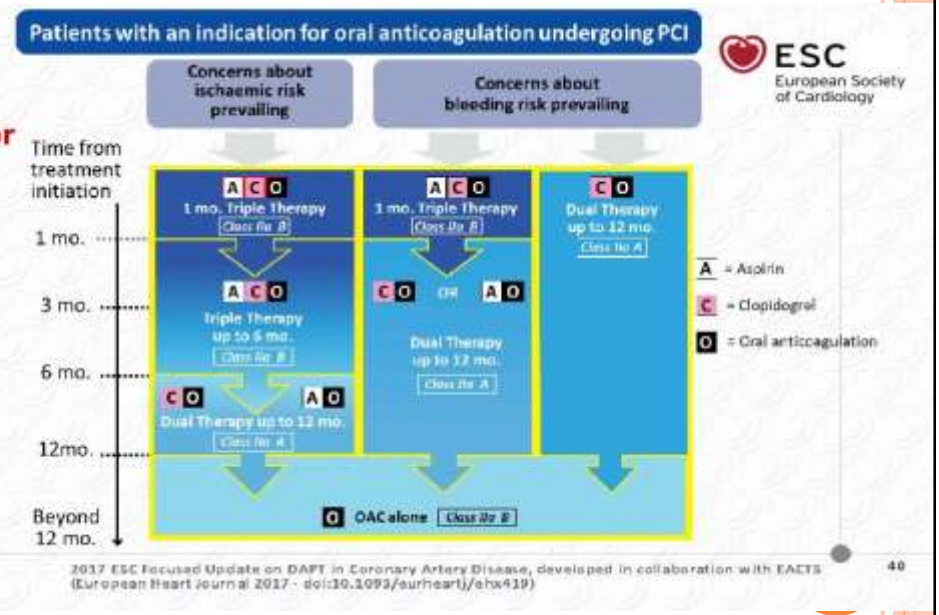
Algorithm for dual antiplatelet therapy (DAPT) in patients with an indication for oral anticoagulation undergoing percutaneous coronary intervention (PCI)



Antithrombotic Therapy in ACS patients undergoing PCI who require OAC

- No interruption of VKA or NOAC
- No additional parenteral anticoagulant if INR >2.5 with VKA
- Additional parenteral anticoagulant with NOACs

HAS-BLED

- Radial access
- Avoid GP II_b/III_a inhibitors unless for bail-out
- Clopidogrel is the P_2Y_{12} I
- Of choice
- PPI

High Bleeding Risk

- Triple therapy for only 1 m then
- NOAC + ASA or clopidogrel

High Ischemic Risk

- Triple therapy for 6 m then
- (N)OAC + ASA or Clopidogrel for 12 m

Ticagrelor or Prasugrel are not recommended as parts of triple therapy

New DES > BMS

Thank You