Which Cardiac Patients Require Antiplatelet(s) in Addition to Anticoagulants?

Starting anticoagulation in patients already prescribed single or dual antiplatelet therapy

In many cases when a patient is started on an anticoagulant, existing antiplatelet treatment can be stopped or reduced in intensity. This should always be reviewed at the start of treatment and a plan clearly documented.

- If a patient has had previous cardiac surgery e.g. coronary artery bypass graft (CABG) surgery or valve replacement/repair: **check with the cardio-thoracic team before stopping any treatment.**

- If the patient has ever had percutaneous coronary intervention (PCI) or cardiac stenting: **check with the cardiology consultant or SpR before stopping any treatment.**

Single antiplatelet and anticoagulation

If there is an indication for single antiplatelet therapy and anticoagulation, always document the reason and the intended duration of combined therapy.

Dual anti-platelet and anticoagulation ('triple therapy')

There is limited data on the safety of combining dual antiplatelet treatment with anticoagulation. However, there is a significantly increased bleeding risk and the choice of regime will depend on a balance of risks (major bleeding) and benefits (reduction in risk of stroke, CV events and stent thrombosis) for the individual patient. The most **common** scenarios are likely to be:

- Patients with new atrial fibrillation (AF) and a $CHA_2DS_2VASc \geq 2$ who have had emergency or elective PCI.

- Patients with pre-existing prescription for anticoagulation (e.g AF,VTE) who have had emergency or elective PCI.

Version	Lead Authors	MGG Approval
1	Alison Warren, Consultant Pharmacist Cardiology Dr James Cockburn Consultant Cardiologist	September 2017
2	Updated by Lizzie Malcolm, Specialist Rotational Pharmacist	November 2022
	Review date	November 2024

General Rules:

It is not possible to cover every scenario but the following apply if the patient is prescribed **triple therapy**:

- The decision for triple therapy should **always** be made by a cardiology consultant or cardiology SpR.

- Treatment plans should be **clearly documented -** which includes in the hospital discharge summary (TTO) or any clinical letters to primary care.

- Patients with AF and treated with coronary revascularisation(CABG) surgery, triple therapy should be **avoided.** In very rare circumstances, the risk of thromboembolism may be higher than the risk of bleeding post surgery and therefore, whenever this situation arises the decision for triple therapy **must** be made by the consultant and involve the patient throughout the process.

- As part of triple therapy, the dual antiplatelet regime is usually **aspirin + clopidogrel.** Due to a higher risk of bleeding, prasugrel or ticagrelor should be avoided unless there is a clear need for these agents (e.g. stent thrombosis on aspirin plus clopidogrel, or major and unavoidable drug interactions).

- The **duration** of triple therapy should **always** be stated by the cardiology consultant/SpR and should be kept **as short as possible**, weighing up the risk of thrombotic events and bleeding (using HAS-BLED or ORBIT scores and addressing modifiable bleeding risk factors).

- For triple therapy after uncomplicated PCI in patients with AF, **early cessation of aspirin after 1 week** may be considered if the risk of stent thrombosis is low or if bleeding risk is high (HAS-BLED ≥3). In most scenarios (including after ACS) aspirin can be stopped after **1 month** with the patient continuing on **clopidogrel plus anticoagulation.**

- If there is an on-going need for anticoagulation, clopidogrel should be **stopped after 12 months** (and anticoagulant continued) unless deemed to be high thrombotic risk by the cardiology consultant**. If any uncertainty discuss with cardiology consultant before stopping the antiplatelet.**

Choice of anticoagulant in 'triple therapy':

- In eligible patients with AF, a **DOAC should be used in preference to warfarin** (as studies have shown a higher bleeding risk with warfarin compared to DOACs when used in triple therapy). **There is currently no evidence to suggest using one DOAC over another, however apixaban or rivaroxaban may be preferable based on clinician experience.** If there any doubts, consult the cardiology consultant**.**

- The **normal dose of DOAC** should be prescribed with the licensed dose for the indication and any criteria for dose reduction. However for AF patients at higher bleeding risk (HASBLED≥3 or ORBIT ≥4) a lower dose of rivaroxaban (15mg once a day) may be preferred regardless of the renal function. The lower doses will need to be reviewed when the patient is changed to single antiplatelet + anticoagulant (and may need to be increased in line with dosing recommendations).

- If the anticoagulant is **warfarin** (e.g. for other high risk indications i.e. valve replacements or LV thrombus), close monitoring of the INR is required and the **INR target** must be clearly documented. Use of DOACs for LV thrombus is increasing and remains **unlicensed,** therefore is a decision to be made by the cardiology consultant.

- For patients with AF already on warfarin, efforts should be made to switch to a DOAC if appropriate. A target INR of 2-2.5 may be preferred rather than the usual 2-3.

- **If the plan is unclear always check with the cardiology consultant /SpR**

Gastro-protection

For patients without a pre-existing prescription, a prophylactic dose of proton pump inhibitor (e.g. lansoprazole 15mg once a day) should be offered for gastro-protection to all patients on combination therapy with single or dual antiplatelet and an anticoagulant. Avoid omeprazole and esomeprazole as they may reduce the antiplatelet effect of clopidogrel.

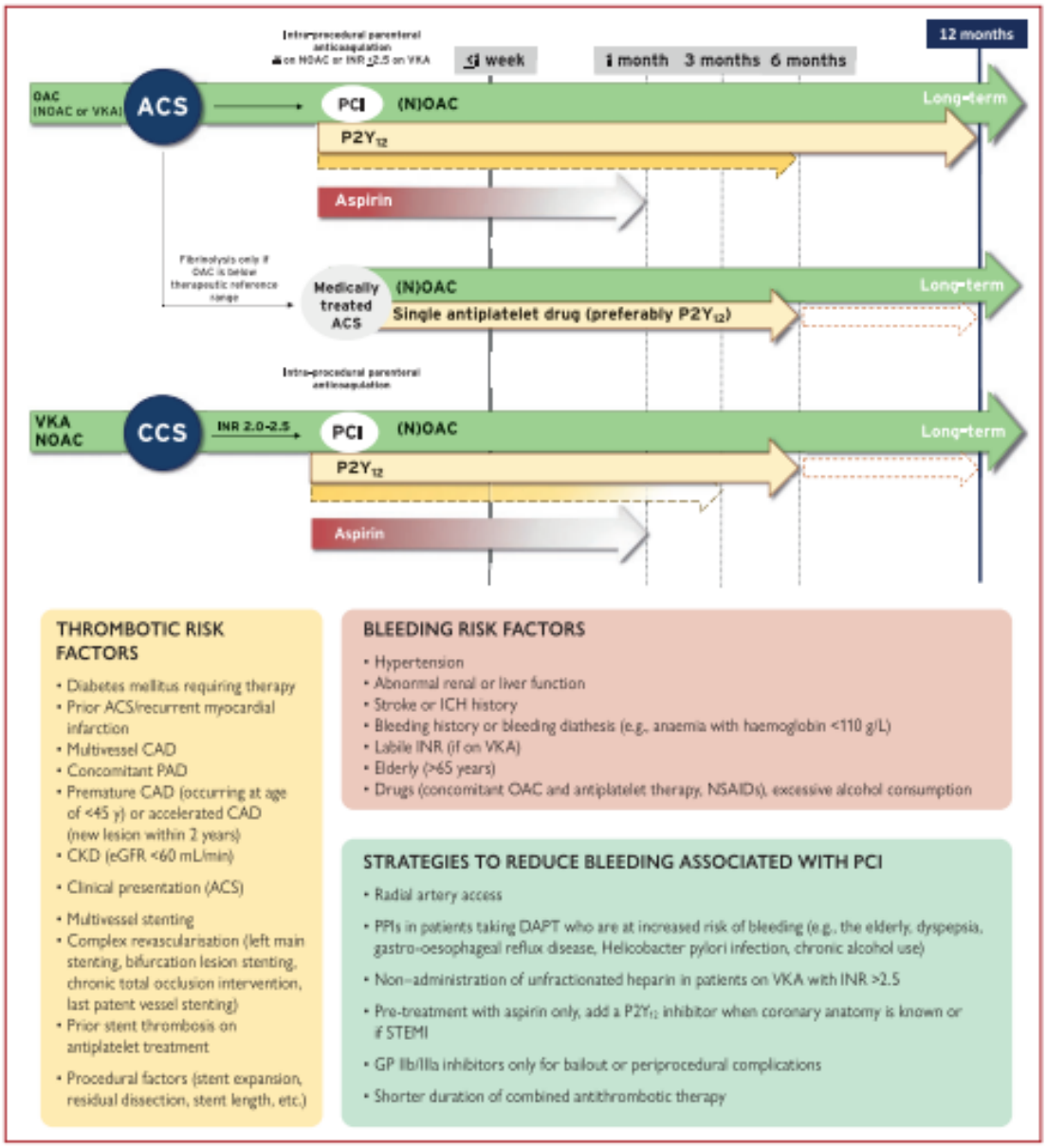

Figure 20 Post-procedural management of patients with AF and ACS/PCI (full-outlined arrows represent a default strategy; graded/dashed arrows show treatment modifications depending on individual patient's ischaemic and bleeding risks).

Version	Lead Authors	MGG Approval
1	Alison Warren, Consultant Pharmacist Cardiology Dr James Cockburn Consultant Cardiologist	September 2017
2	Updated by Lizzie Malcolm, Specialist Rotational Pharmacist	November 2022
	Review date	November 2024

References:

2020 NICE Acute coronary syndrome Evidence review for antiplatelet therapy for people with an ongoing separate indication for anticoagulation NICE Guideline NG185 Intervention evidence review Nov 2020 https://www.nice.org.uk/guidance/ng185/evidence/g-antiplatelet-therapy-for-people-with-an-ongoing-separate-indication-for-anticoagulation-pdf-8903796020.
Last accessed 6.1.22

Hendricks G, Potpara T, Dagres N et al
2020 ESC Guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association for Cardio-Thoracic Surgery (EACTS): The Task Force for the diagnosis and management of atrial fibrillation of the European Society of Cardiology (ESC) Developed with the special contribution of the European Heart Rhythm Association (EHRA) of the ESC2020 ESC Guidelines for the management of atrial fibrillation developed in collaboration with EACTS.
European Heart Journal 2021 42 (5) 373–498. https://doi.org/10.1093/eurheartj/ehaa612

Steffel J, Collins R, Antz M et al
2021 European Heart Rhythm Association Practical Guide on the Use of Non-Vitamin K Antagonist Oral Anticoagulants in Patients with Atrial Fibrillation
EP Europace, 2021 23 (10) 1612–1676. https://doi.org/10.1093/europace/euab065

Golwala HB, Cannon C, Steg G et al
Safety and efficacy of dual vs. triple antithrombotic therapy in patients with atrial fibrillation following percutaneous coronary intervention: a systematic review and meta-analysis of randomized clinical trials
European Heart Journal (2018) 39, 1726–1735 https://doi.org/10.1093/eurheartj/ehy162