

Summary of Antiplatelet Options in Cardiovascular Disease

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26Nov18	1.1	Formatting amendments to Dual Antiplatelet Therapy (DAPT) table

Document management

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Summary of antiplatelet options in cardiovascular disease

The guidance does NOT override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Antiplatelet therapies are used for a number of indications. This guidance summarises the recommended antiplatelet regimens for use across North Central and North East London.

Antiplatelet Monotherapy

The majority of patients will require antiplatelet monotherapy.

Indication	First-line treatment option	Alternative (especially in the event of C/I or intolerance to first-line options)
Stable coronary artery disease	Aspirin 75mg daily	Clopidogrel 75mg daily
Post-stroke or Transient Ischaemic Attack (TIA) (in the absence of atrial fibrillation)	Clopidogrel 75mg daily	Aspirin 75mg daily with dipyridamole MR 200mg twice daily
Peripheral arterial disease (PAD)	Clopidogrel 75mg daily	Aspirin 75mg daily
Multivascular disease (i.e. coronary artery disease and stroke / TIA or PAD)	Clopidogrel 75mg daily	Aspirin 75mg daily (with dipyridamole MR 200mg twice daily if prior stroke/TIA)

- Aspirin as monotherapy is not indicated for stroke prevention in patients with Atrial Fibrillation (AF)
- Aspirin is not recommended for the routine use for the primary prevention of cardiovascular disease, in the presence or absence of diabetes and/or chronic kidney disease.
- Prasugrel and ticagrelor are not licensed for use as monotherapy for the primary or secondary prevention of CV disease.
- Prasugrel, ticagrelor and clopidogrel have not been used in combinations together so are not recommended.

Dual Antiplatelet Therapy (DAPT)

All patients initiated on DAPT must leave hospital with a clear documented plan that includes the indication and duration of treatment. Clear guidance from the initiating team on when to stop DAPT must be communicated to primary care. It should be clear who to contact in the event of clinical queries or need for interruptions of DAPT. For all patients on DAPT or triple therapy, routine consideration of co-prescription with a PPI is encouraged to reduce the risk of GI bleeding. Please see more details on next page.

Indication	First line option	Alternatives (especially in the event of C/I or intolerance to first-line options)
<p>Acute coronary syndrome (ACS) with sinus rhythm including:</p> <ul style="list-style-type: none"> ST elevation MI (STEMI) Non-ST elevation MI (NSTEMI) (Troponin +ve) <p>with or without stent insertion</p> <p>For patients with ACS and in Atrial Fibrillation (AF), please see further information in "triple therapy" paragraph.</p>	<ul style="list-style-type: none"> Aspirin 75mg daily plus ticagrelor 180mg loading followed by 90mg twice daily for one year (may be shorter if the patient has a high risk of bleeding); then continue: <ol style="list-style-type: none"> Aspirin monotherapy long-term ¹ OR In patients who are at high risk of atherothrombotic event ²: Aspirin 75mg daily plus ticagrelor 60mg twice daily after year 1, for a maximum of 3 years; followed by aspirin 75mg monotherapy long-term ¹. The decision to extend treatment beyond the first year should be made by cardiologist team during the MI event admission. Extended ticagrelor therapy is not recommended for patients on anticoagulation or at increased risk of major bleeding. Rivaroxaban 2.5mg twice a day in combination with aspirin 75mg daily plus clopidogrel 75mg daily or aspirin alone for one year as an alternative to ticagrelor and aspirin for certain ACS patients with high clot burden. 	<ul style="list-style-type: none"> Aspirin 75mg daily plus clopidogrel 75mg daily for one year (may be shorter if the patient has a high risk of bleeding); then continue aspirin monotherapy long-term ¹ <p>OR if clopidogrel is unsuitable</p> <ul style="list-style-type: none"> Aspirin 75mg daily plus prasugrel 60mg loading dose then 10mg ³ daily for one year then continue aspirin monotherapy long-term ¹

Indication	First line option	Alternatives (especially in the event of C/I or intolerance to first-line options)
Unstable angina (Troponin -ve)	<ul style="list-style-type: none"> Aspirin 75mg daily plus clopidogrel 75mg daily for one year (may be shorter if the patient has a high risk of bleeding); then continue aspirin monotherapy long-term ¹ 	<ul style="list-style-type: none"> Aspirin 75mg daily or clopidogrel 75mg daily as monotherapy long-term
Elective Percutaneous Coronary Intervention (PCI) with drug eluting stent insertion (Not ACS)	<ul style="list-style-type: none"> Aspirin 75mg daily plus clopidogrel 75mg daily for one year (may be shorter if the patient has a high risk of bleeding); then continue aspirin monotherapy long term ¹ 	<ul style="list-style-type: none"> Discuss with cardiology before changing drug therapy
Elective percutaneous coronary intervention (PCI) with bare metal or biofreedom stenting (Not ACS)	<ul style="list-style-type: none"> Aspirin 75mg daily plus clopidogrel 75mg daily for at least one month but up to six months (depending on ischaemic and bleeding risk) then continue aspirin monotherapy long-term ¹ 	<ul style="list-style-type: none"> Discuss with cardiology before changing drug therapy
Elective percutaneous coronary intervention (PCI) with drug eluting balloons (Not ACS)	<ul style="list-style-type: none"> Aspirin 75mg daily plus clopidogrel 75mg daily for at least one month but up to six months (depending on ischaemic and bleeding risk) then continue aspirin monotherapy long-term ¹ 	<ul style="list-style-type: none"> Discuss with cardiology before changing drug therapy
Post-Coronary Artery Bypass Graft (CABG) surgery (if initiated prior to hospital discharge)	<ul style="list-style-type: none"> Aspirin 75mg daily plus clopidogrel 75mg daily for up to three months; then continue aspirin monotherapy long-term ¹ 	<ul style="list-style-type: none"> Aspirin 75mg daily or clopidogrel 75mg daily as monotherapy
Post-Patent Foramen Ovale (PFO) device closure	<ul style="list-style-type: none"> Aspirin 75mg daily and clopidogrel 75mg daily for up to three months then consider aspirin monotherapy long-term ¹ 	<ul style="list-style-type: none"> Discuss with cardiology before changing drug therapy
Following Transcatheter Aortic Valve Insertion (TAVI)	<ul style="list-style-type: none"> In line with local guideline. This is usually aspirin 75mg daily or clopidogrel 75mg daily long-term 	<ul style="list-style-type: none"> Switch to alternative agent. If this is not tolerated discuss with initiating team

¹ Clopidogrel monotherapy long-term may be indicated in some patients – refer to monotherapy antiplatelet table above

² Extended treatment with ticagrelor 60mg twice daily with aspirin 75mg daily may be started without interruption (continuation therapy) after initial 1 year treatment with dual antiplatelet therapy, started up to 2 years from the myocardial infarction, or within 1 year after stopping previous adenosine diphosphate (ADP) receptor inhibitor treatment. The following risk factors are taken into account when assessing risk of future ischaemic events: diabetes mellitus requiring medication, previous myocardial infarction in addition to index event, multivessel coronary artery disease and CKD (GFR <60ml/min) not requiring dialysis

³ If patient is over the age of 75 and/or of low bodyweight (under 60kg) a lower maintenance dose of 5mg daily may be considered

Triple Therapy (Dual antiplatelet therapy plus anticoagulant)

On occasion, patients may require dual antiplatelet therapy and full dose oral anticoagulation (OAC) – for example, in a patient with AF following an ACS event and/or PCI with a stent insertion. The decision to prescribe triple therapy should be made by a consultant cardiologist. This indication is separate to the DAPT plus low dose Rivaroxaban (2.5 mg twice daily) use in non-AF patients.

The following needs to be taken into consideration if the patient is on triple therapy with full dose anticoagulation:

- The duration of triple therapy should be as short as possible. Triple therapy may continue for one to six months, then anticoagulation and clopidogrel to one year post ACS event and/or PCI then anticoagulation alone unless there is a strong indication to continue clopidogrel or aspirin in addition to the anticoagulant. Duration and indications for of triple therapy must be clearly documented in the hospital discharge summary.
- The anti-platelets of choice for patients on full dose anticoagulation are clopidogrel and aspirin. The use of ticagrelor or prasugrel is not recommended as part of triple therapy plan with full dose anticoagulation due to excessive bleeding risk. Evidence of other combinations is emerging from trials of patients undergoing PCI with non-valvular atrial fibrillation.
- Recent ESC guidance suggests that using one of the direct oral anticoagulants at the lowest dose effective for prevention of AF-related stroke as part of the triple therapy regimen may be appropriate. Detailed guidance from the ESC can be found at: <https://www.escardio.org/Guidelines/Clinical-Practice-Guidelines/Atrial-Fibrillation-Management>.
- Ensure the patient has been prescribed a PPI for gastro protection.

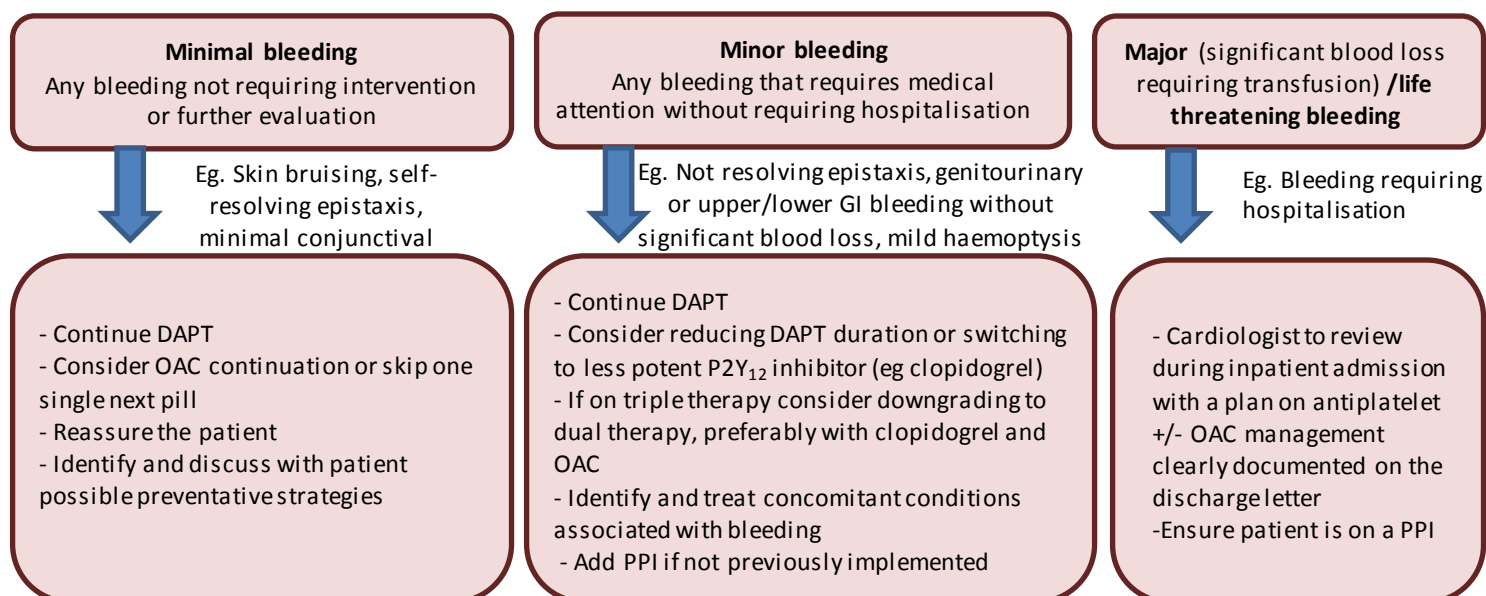
Co-prescription of a PPI with clopidogrel

Following an analysis of new data, the European Medicines Agency (EMA) has recommended that concomitant use of clopidogrel and omeprazole or esomeprazole should now be discouraged. <https://www.gov.uk/drug-safety-update/clopidogrel-and-proton-pump-inhibitors-interaction-updated-advice>. Omeprazole has been shown to inhibit the isoenzyme (CYP2C19) that metabolises clopidogrel to its active metabolite, thereby reducing the ability of clopidogrel to inhibit platelet aggregation. Prescribers are advised that where co-prescription of a PPI with clopidogrel is necessary, lansoprazole is preferred to omeprazole. For other PPIs, concomitant use can be considered if specifically indicated.

Patients who develop bleeding whilst on treatment

Patients who develop bleeding complications while on DAPT represent a challenging patient population for whom no guidance from randomised controlled trials is available. The decision to withhold or continue DAPT in this setting largely depends on ischaemic (e.g. indication for DAPT and time from last stent insertion, if any, to bleeding) vs. recurrent or prolonged bleeding risks. A practical flow chart in order to aid management of this challenging population is provided on the next page.

Patients who develop bleeding whilst on treatment



Continuation and documentation in primary care

To ensure patients do not continue antiplatelet therapy for longer than necessary, please make sure the patient's records and prescriptions in primary care have a stop date documented. If a high risk patient needs to continue on extended treatment with ticagrelor 60mg twice a day with aspirin 75mg once daily, please add to patient's records a maximum duration of three years followed by aspirin monotherapy. Consider cardiology review if new AF occurs needing triple therapy or for interruptions of DAPT for any type of surgery or if there no documented stop date.

If a patient develops AF and has stable coronary artery disease but without an ACS and/or coronary intervention in the previous 12 months, OAC monotherapy, and not combination with antiplatelets, is recommended.

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