Sheffield guidelines for the use of antiplatelets in the prevention and treatment of cardiovascular disease (September 2022)

Approved by Sheffield Area Prescribing Group and Sheffield Teaching Hospitals Medicines Management and Therapeutics Committee

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Indications for antiplatelet use and corresponding advice

The recommended treatment in Sheffield is given for the indications below.

Indication	***Advice***
Primary prevention (long term treatment)	No antiplatelet is generally recommended. Where a secondary care clinician has assessed an individual patient and considers the balance of risk vs benefit favours treatment with an antiplatelet then aspirin 75mg daily is the first line treatment Note: no antiplatelet is licensed for primary prevention
Atrial fibrillation (long term treatment)	**Do not** offer aspirin 75mg monotherapy solely for stroke prevention to people with atrial fibrillation. Please see the Anticoagulation for Stroke Prevention in Atrial Fibrillation guidelines.
Ischaemic stroke, secondary prevention (long term treatment) and Transient ischaemic attack (TIA) (long term treatment)	Clopidogrel 75mg daily (first line)- licensed post stroke; unlicensed post-TIA (see Sheffield primary care guidelines for Stroke and Transient Ischaemic Attack) or Aspirin 75mg daily + dipyridamole MR 200mg twice daily where clopidogrel is C/I or not tolerated (Either may be used as monotherapy if the other is not tolerated)
Carotid stenosis with stent insert	Clopidogrel 75mg daily long term plus aspirin 75mg daily for 1 month (unlicensed indication)
Carotid endarterectomy patients (long term treatment)	Clopidogrel 75mg daily, any other treatment combinations should be confirmed in writing by the Stroke Specialists or Neurologists (unlicensed indication)
Peripheral Vascular Disease (PVD) (long term treatment)	Clopidogrel 75mg daily (first line treatment) or Aspirin 75mg daily
Superficial femoral, popliteal and tibial artery stents	Clopidogrel 75mg daily (long term) (unlicensed indication) + aspirin 75mg daily (2-12 months, depending on stent used; duration to be specified on discharge)
Stable angina (long term treatment) due to obstructive coronary artery disease	Aspirin 75mg daily. Consider clopidogrel 75mg daily if aspirin not tolerated (unlicensed). In patients with a diagnosis of angina in the absence of obstructive coronary artery disease, antiplatelet therapy may be considered according to the individual balance of risk vs benefit, as for primary prevention (see above).

Stable angina with elective coronary stenting (PCI)	Aspirin 75mg daily (long term) in combination with clopidogrel 75mg daily (unlicensed indication) for the following duration depending on type of stent- Bare metal stents: clopidogrel 75mg od for 1 month. Drug-eluting stents: clopidogrel 75mg od for 6 months but a reduced duration may be considered for management of serious bleeding, or long-term administration may be considered for high ischaemic risk patients; the specialist will clearly communicate the recommended duration to primary care prescribers. Occasionally prasugrel or ticagrelor may be recommended (see below for dosing) in place of clopidogrel if there is exceptional risk of stent thrombosis or negative drug interaction with clopidogrel.
Elective coronary artery bypass graft (CABG), including saphenous vein grafts	Aspirin 300mg daily for 12 months and then reduce to 75mg (long term) thereafter.
Urgent non-elective CABG	For loading doses, please see ACS section below. Maintenance dose- Aspirin 75mg daily (long term) in combination with ticagrelor 90mg twice daily for 12 months post CABG. Extended treatment beyond twelve months with ticagrelor has not been reviewed in patients who have undergone coronary-artery bypass grafting.
Acute coronary syndrome (ACS), loading doses	**Treatment will usually be initiated by a specialist and the length of treatment clearly communicated to primary care prescribers.** **Note for ACS where an antiplatelet is indicated the following loading doses are usually appropriate.** *Aspirin 300mg* *Ticagrelor 180mg* *Prasugrel 60mg* *Clopidogrel 300mg (or 600mg if used prior to PCI) (Omit initial loading dose in patients over 75 years with STEMI managed with fibrinolysis)*

Patients with ST-segment-elevation myocardial infarction (STEMI) – defined as ST elevation or new left bundle branch block on electrocardiogram –	**Treated with primary percutaneous coronary intervention (PCI)** Aspirin 75mg daily (long term) and prasugrel 10mg daily maintenance dose (or 5 mg daily if <60 kg body weight or ≥75 years of age) for up to 12 months or Aspirin 75mg daily (long term) and ticagrelor 90mg twice daily for one year or Aspirin 75mg daily (long term) and clopidogrel 75mg daily for one year and/or rivaroxaban 2.5mg twice daily (a decision on continuation of treatment should be taken no later than 12 months after starting treatment) **Treated with fibrinolytic therapy** Aspirin 75mg daily (long term) and clopidogrel 75mg daily for one year and/or rivaroxaban 2.5mg twice daily (a decision on continuation of treatment should be taken no later than 12 months after starting treatment)
Patients with non-ST-segment-elevation Acute Coronary Syndromes (NSTE-ACS) (NSTEMI and unstable angina)	Aspirin 75mg daily (long term) and ticagrelor 90mg twice daily for one year regardless of management strategy (conservative or invasive), or For patients treated with PCI, aspirin 75mg daily (long term) and prasugrel 10mg daily for one year or 5mg daily for one year if body weight less than 60kg. (The use of prasugrel in patients ≥ 75 years of age is generally not recommended. Please see the SPC for more details on this patient group) or Aspirin 75mg daily (long term) and clopidogrel 75mg daily for one year and/or rivaroxaban 2.5mg twice daily regardless of management strategy (a decision on continuation of treatment should be taken no later than 12 months after starting treatment)

Patients with coronary heart disease (CAD) or symptomatic peripheral artery disease (PAD) at a high risk of ischaemic events (Extended anti-thrombotic treatment)	For people with CAD, high risk of ischaemic events is defined as **ONE** of the following: i.) Aged 65 or over, **or** ii.) Atherosclerosis in at least 2 vascular territories (e.g., coronary cerebrovascular or peripheral arteries) **OR TWO** or more of the following: i.) Current smoking status ii.) Diabetes iii.) Kidney dysfunction with eGFR <60ml/min/1.73m^2 iv.) Heart failure v.) Previous non-lacunar stroke Aspirin 75mg once daily in combination with rivaroxaban 2.5mg twice daily (long term treatment)
Prevention of atherothrombotic events beyond 1 year after NSTEMI or STEMI (Extended dual antiplatelet treatment)	Aspirin 75mg once daily long term with a P2Y$_{12}$ receptor inhibitor (ticagrelor, clopidogrel or, in PCI-treated patients, prasugrel). Ticagrelor 60mg is the only P2Y$_{12}$ receptor inhibitor that is licensed for extended dual antiplatelet treatment, and treatment may be started without interruption following 1-year of dual antiplatelet treatment with Ticagrelor 90mg. Identification of patients requiring extended dual antiplatelet therapy, and the duration of treatment will be made by the cardiologist during hospital admission for the index MI.
Prevention of atherothrombotic events in patients with ACS at low ischaemic risk and/or high bleeding risk (Shortened dual antiplatelet treatment followed by P2Y$_{12}$ receptor inhibitor monotherapy)	Discontinue Aspirin 75mg once daily after 3-6 months of dual antiplatelet treatment with Aspirin 75mg once daily and a P2Y$_{12}$ receptor inhibitor. Identification of patients requiring shortened dual antiplatelet treatment, and the duration of treatment will be made by the cardiologist during hospital admission for the index MI.

Prevention of thrombotic events in patients with atrial fibrillation treated with PCI for ACS	Options are: DOAC + aspirin 75mg once daily + clopidogrel 75mg once daily for 1 month after PCI followed by cessation of aspirin at 1 month and continue DOAC + clopidogrel 75mg once daily for total of 6-12 months, followed by DOAC monotherapy from 6-12 months or Apixaban twice daily (see SPAF guidelines for dosing) + ticagrelor 90mg twice daily for 6-12 months followed by DOAC monotherapy from 6-12 months or Apixaban twice daily (see SPAF guidelines for dosing) + prasugrel 5-10mg daily (see above for dosing) for 6-12 months followed by DOAC monotherapy from 6-12 months The regimen and duration of treatment will be made by the cardiologist during hospital admission for the index PCI procedure. The choice of DOAC made by the cardiologist is relevant whilst a combination of DOAC/antiplatelet is indicated and should not be changed. However, once the antiplatelet is discontinued then any DOAC would be appropriate

Clopidogrel interaction with omeprazole and esomeprazole

Co-administration of clopidogrel with omeprazole or esomeprazole should be avoided. Other PPIs may weakly interact with clopidogrel and therefore potential risk of reduction in the efficacy of clopidogrel should be weighed against the GI benefit of PPI. PPIs are however recommended in patients on aspirin and/or clopidogrel who are at high risk of GI bleeding.
If a PPI is indicated, lansoprazole is first line for patients requiring or likely to require clopidogrel. Prasugrel and ticagrelor have no negative interaction with PPIs.

Antiplatelet use in patients with hypersensitivity to aspirin

Patients admitted to hospital following an acute coronary syndrome will require dual antiplatelet treatment, usually with aspirin on discharge. These patients are most likely to have undergone aspirin de-sensitization in hospital prior to discharge. The following is therefore the recommendation managing patients with aspirin allergy who have had aspirin de-sensitization-
"Continue aspirin 75 mg daily thereafter without any break in treatment. Advise patient that they will need further de-sensitization in the future if they stop or miss any doses of aspirin and then need to restart aspirin for any reason[1]."
Alternatively, the secondary care physician may recommend avoidance of aspirin and alternative treatment with a $P2Y_{12}$ inhibitor with or without rivaroxaban 2.5mg bd for 6 months following PCI, depending on the risks of stent thrombosis and bleeding.

[1] Taken from *Aspirin desensitisation protocol for patients undergoing percutaneous coronary intervention who have prior aspirin allergy. Version 2 by R.F.Storey 8 April 2016.*

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Summary of product characteristics for the agents mentioned are available at http://www.medicines.org.uk/emc/

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