Guidelines on oral antiplatelet therapy in cardiovascular disease

This guidance should be considered as one part of the wider therapeutic management of patients. The indication for antiplatelet therapy should be clearly recorded and, where relevant, communicated between primary and secondary care.

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<tr>
<th>INDICATION</th>
<th>FIRST LINE THERAPY</th>
<th>COMMENTS</th>
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<tbody>
<tr>
<td>Cerebral atherosclerotic disease (non-haemorrhagic) ie Ischaemic Stroke/transient ischaemic attack (TIA)</td>
<td>Ischaemic stroke: Aspirin 300mg daily (initiated 24 hours after thrombolysis or as soon as possible in patients not receiving thrombolysis) for 14 days or clopidogrel 75mg daily if intolerant to aspirin. Clopidogrel 75mg daily is recommended as long term treatment post ischaemic stroke. If contra-indicated or not tolerated dipyridamole MR 200mg BD plus aspirin 75mg daily. If aspirin is also contra-indicated dipyridamole MR can be used alone. TIAs: Aspirin or clopidogrel 300mg as a loading dose then 75mg daily. Combination of aspirin with clopidogrel is not recommended in stroke/TIA as it significantly increases the risk of major bleeding.</td>
<td>Give aspirin rectally or via enteral tube if patient is dysphagic. Clopidogrel does not disperse easily, however can be crushed and mixed with water to aid administration (unlicensed indication).</td>
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<td>Peripheral arterial disease (PAD) or multivascular disease</td>
<td>Clopidogrel 75mg daily</td>
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<td>Stable coronary artery disease</td>
<td>Aspirin 75mg daily (or if already on clopidogrel for PAD or stroke continue with clopidogrel 75mg daily) <strong>Elective PCI</strong> Aspirin 300mg as loading dose followed by 75mg daily for life <strong>AND</strong> Clopidogrel 300mg to 600mg as loading dose followed by 75mg daily (generally 6 months for a drug eluting stent, 1 month for a bare metal stent)</td>
<td>The duration of dual antiplatelet therapy should be determined by the interventional cardiologist. <strong>Drug Eluting Stents</strong> are prone to thrombosis for longer than bare metal stents hence the increased duration of dual therapy.</td>
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| **Acute ST Elevation Myocardial infarction (STEMI)**<sup>5,6</sup> | Heparin (or bivalirudin if heparin not tolerated or contra-indicated) will be given in the cardiac cath lab  
**Primary PCI**  
Aspirin 300mg as loading dose followed by 75mg daily for life  
AND  
Ticagrelor 180mg as a loading dose followed by 90mg BD for 12 months * | **Patients on warfarin undergoing PCI:** Cardiologist to review warfarin treatment prior to procedure. Post-PCI triple therapy with warfarin, clopidogrel and aspirin will be indicated. For duration of therapy see ESC table attached<sup>7</sup> (<Appendix I>)  
*Prasugrel can be considered as an alternative to ticagrelor for PPCI, only recommended for patients who can’t tolerate ticagrelor |
| **Non–ST segment elevation Acute Coronary Syndrome (NSTEACS)**<sup>8</sup> | Aspirin 300mg as loading dose followed by 75mg daily for life  
AND  
Clopidogrel 300mg to 600mg as loading dose followed by 75mg daily for 12 months after most recent event/ intervention | Ticagrelor can be considered as an alternative to clopidogrel for selected patients (for 12 months) BCUHB initiation only from Cardiology Cath lab YGC for PCI<sup>9</sup> |
| **Patients Post-CABG**<sup>10</sup> | Patients from Liverpool Heart and Chest Hospital are usually discharged on clopidogrel 75mg in combination with aspirin 75 mg daily post CABG (unlicensed indication). Current practice is to continue between six weeks and 12 months. The surgeon should inform the patient’s GP in writing of the specific period recommended for clopidogrel treatment. Some patients (depending on consultant preference) are discharged on 300mg daily aspirin (no clopidogrel) for 1 year followed by 75mg daily thereafter. | In combination with aspirin, clopidogrel may continue for a maximum of 1 year thereafter aspirin MUST be continued alone unless instructed otherwise by cardiologist. |

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PCI: Primary percutaneous coronary intervention  
CABG: Coronary Artery Bypass Graft  
NSTEACS: Unstable angina and Non-ST segment elevation myocardial infarction (NSTEMI)
PRESCRIBING POINTS

Hospital doctors must ensure **duration of treatment of antiplatelet therapy** is documented in the patient’s case notes and communicated to GP.

General Practitioner should highlight on clinical system length of course for treatment and its stop date e.g. Clopidogrel 75mg tablets, one daily for one year. To stop on the 28th September 2015.

**Aspirin**

Use of aspirin for primary prevention of cardiovascular events, in patients with or without diabetes, is of unproven benefit. Long term use of aspirin, in a low dose of 75mg daily, is of benefit in established cardiovascular disease (secondary prevention). If patient is at a high risk of gastro-intestinal bleeding, a proton pump inhibitor can be added 1

In **aspirin hypersensitivity** (bronchospasm, angioedema or rash associated with administration of aspirin) consider use of clopidogrel 75mg daily.

**Patient experiencing gastrointestinal symptoms with aspirin the following is suggested:**
- Make sure medication is taken with food
- Consider using formulary proton pump inhibitor (PPI) and check outcome
- Where severe dyspepsia persists consider alternative antiplatelet therapy

**Enteric coated aspirin**

There is **no** evidence that enteric coated aspirin is superior to dispersible aspirin in reducing side-effects and it is considerably more expensive.
REFERENCES

1. BNF September 2014 2.9 Antiplatelet drugs, Accessed via www.medicinescomplete.com September 2014

2. RCP National clinical guideline for stroke Fourth edition September 2012


6. NICE CG167 July 2013. Myocardial infarction with ST segment Elevation: The acute management of myocardial infarction with ST-segment elevation

7. Gregory Y.H. Lip et al. Management of antithrombotic therapy in atrial fibrillation patients presenting with acute coronary syndrome and/or undergoing percutaneous coronary or valve interventions: a joint consensus document of the European Society of Cardiology Working Group on Thrombosis, European Heart Rhythm Association (EHRA), European Association of Percutaneous Cardiovascular Interventions (EAPCI) and European Association of Acute Cardiac Care (ACCA) endorsed by the Heart Rhythm Society (HRS) and Asia-Pacific Heart Rhythm Society (APHRS). European Heart Journal Aug 2014,DOI: 10.1093/eurheartj/ehu298, Table 4

8. NICE CG94 March 2010 Unstable angina and NSTEMI: The early management of unstable angina and non-ST-segment-elevation myocardial infarction


10. Correspondence with Liverpool Heart and Chest Hospital
APPENDIX I: Recommended antithrombotic strategies following coronary artery stenting in patients with atrial fibrillation at moderate-to-high thrombo-embolic risk (in whom oral anticoagulation therapy is required)

Gregory Y.H. Lip et al. Management of antithrombotic therapy in atrial fibrillation patients presenting with acute coronary syndrome and/or undergoing percutaneous coronary or valve interventions: a joint consensus document of the European Society of Cardiology Working Group on Thrombosis, European Heart Rhythm Association (EHRA), European Association of Percutaneous Cardiovascular Interventions (EAPCI) and European Association of Acute Cardiac Care (ACCA) endorsed by the Heart Rhythm Society (HRS) and Asia-Pacific Heart Rhythm Society (APHRS). European Heart Journal Aug 2014. DOI: 10.1093/eurheartj/ehu298. Table 4

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<table>
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<th>Haemorrhagic risk</th>
<th>Stroke risk</th>
<th>Clinical setting</th>
<th>Recommendations</th>
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<tbody>
<tr>
<td>Low or moderate (e.g. HAS-BLED score 0–2)</td>
<td>Moderate (CHA²DS²-VASC = 1 in males)</td>
<td>Stable CAD</td>
<td>At least 4 weeks (no longer than 6 months): triple therapy of OAC + aspirin 75mg/day + clopidogrel 75 mg/day. Up to 12th month: OAC and clopidogrel 75 mg/day (or alternatively, aspirin 75mg/day). Lifelong: OAC.</td>
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<tr>
<td>High (CHA²DS²-VASC ≥2)</td>
<td>Stable CAD</td>
<td>At least 4 weeks (no longer than 6 months): triple therapy of OAC + aspirin 75mg/day + clopidogrel 75 mg/day. Up to 12th month: OAC and clopidogrel 75 mg/day (or alternatively, aspirin 75 mg/day). Lifelong: OAC.</td>
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<td>Moderate (CHA²DS²-VASC = 1 in males)</td>
<td>ACS</td>
<td>6 months: triple therapy of OAC + aspirin 75mg/day + clopidogrel 75 mg/day. Up to 12th month: OAC and clopidogrel 75 mg/day (or alternatively, aspirin 75mg/day). Lifelong: OAC.</td>
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<td>6 months: triple therapy of OAC + aspirin 75mg/day + clopidogrel 75 mg/day. Up to 12th month: OAC and clopidogrel 75 mg/day (or alternatively, aspirin 75mg/day). Lifelong: OAC.</td>
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<tr>
<td>High (e.g. HAS-BLED score ≥3)</td>
<td>Moderate (CHA²DS²-VASC = 1 in males)</td>
<td>Stable CAD</td>
<td>12 months: OAC and clopidogrel 75 mg/day. Lifelong: OAC.</td>
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<tr>
<td>High (CHA²DS²-VASC ≥2)</td>
<td>Stable CAD</td>
<td>4 weeks: triple therapy of OAC + aspirin 75mg/day + clopidogrel 75 mg/day. Up to 12th month: OAC and clopidogrel 75 mg/day (or alternatively, aspirin 75mg/day). Lifelong: OAC.</td>
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PPI should be considered in all patients, particularly where aspirin is used. Newer generation drug-eluting stents should be preferred over bare metal stents in patients at low risk for bleeding. New generation drug-eluting stent is generally preferable over bare-metal stent, particularly in patients at low bleeding risk (HAS-BLED 0–2). OAC, oral anticoagulation, either warfarin (INR: 2.0–2.5) or non-VKA oral anticoagulant at the lower tested dose in AF (dabigatran 110 mg bd., rivaroxaban 15 mg od. or apixaban 2.5 mg bd.). INR, international normalized ratio; PPI, proton pump inhibitors; ACS, acute coronary syndrome.

*p Combination of OAC + clopidogrel 75 mg/day or dual antiplatelet therapy consisting of aspirin 75-mg/day and clopidogrel 75 mg/day may be considered as an alternative.

+ Dual antiplatelet therapy consisting of aspirin 75 mg/day and clopidogrel 75 mg/day may be considered as an alternative.

- Alone or combined with single antiplatelet therapy only in very selected cases (e.g. stenting of the left main, proximal bifurcation, recurrent MIs etc).

> Combination of OAC and clopidogrel 75 mg/day may be considered as an alternative.

Review date: January 2017