# CLINICAL PRACTICE GUIDELINES SUPPORT ASPIRIN USE IN SECONDARY CV EVENT PREVENTION

| Condition/ indication | Recommendation for Aspirin Use, Including Dose and Time Frame | Supporting Guidelines |
|---|---|---|
| **Recurrent MI** | Non–enteric-coated, chewable aspirin (162-325 mg) should be given to all patients with NSTE-ACS without contraindications as soon as possible after presentation; a maintenance dose of aspirin (81-325 mg/d) should be continued indefinitely (class I, level of evidence A). | **AHA/ACC 2014 Guideline for the Management of Patients With Non–ST-Elevation Acute Coronary Syndromes**[1] |
| **STEMI** | • Aspirin (162-325 mg) should be given before primary PCI (class I, level B)<br>• After PCI, aspirin should be continued indefinitely (class I, level A)<br>– 81 mg/d is the preferred maintenance dose (class IIa, level B) | **2013 ACCF/AHA Guideline for the Management of ST-Elevation Myocardial Infarction**[2] |
| **NSTEMI** | Non–enteric-coated, chewable aspirin (162-325 mg) should be given to all patients with NSTE-ACS without contraindications as soon as possible after presentation; a maintenance dose of aspirin (81-325 mg/d) should be continued indefinitely (class I, level A). | **AHA/ACC 2014 Guideline for the Management of Patients With Non–ST-Elevation Acute Coronary Syndromes**[1] |
| **Chronic Stable Angina Pectoris** | Aspirin (75-162 mg/d) should be continued indefinitely in the absence of contraindications in patients with stable ischemic heart disease (class I, level A). | **2012 ACCF/AHA/ACP/AATS/ PCNA/SCAI/STS Guideline for the Diagnosis and Management of Patients With Stable Ischemic Heart Disease**[3] |
| **Unstable Angina Pectoris** | Non–enteric-coated, chewable aspirin (162-325 mg) should be given to all patients with NSTE-ACS without contraindications as soon as possible after presentation; a maintenance dose of aspirin (81-325 mg/d) should be continued indefinitely (class I, level A). | **AHA/ACC 2014 Guideline for the Management of Patients With Non–ST-Elevation Acute Coronary Syndromes**[1] |
| **Post-CABG** | • Aspirin (81-325 mg/d) should be administered preoperatively and within 6 hours after CABG, then continued indefinitely to reduce graft occlusion and adverse cardiac events (class I, level A)<br>• After off-pump CABG, dual antiplatelet therapy with aspirin (81-162 mg/d) plus clopidogrel (75 mg/d) should be administered for 1 year to reduce graft occlusion (class I, level A)<br>• In patients who present with ACS, it is reasonable to administer combination antiplatelet therapy after CABG with aspirin plus either prasugrel or ticagrelor (preferred over clopidogrel); prospective clinical trial data from CABG populations are not yet available (class IIa, level B)<br>• As sole antiplatelet therapy after CABG, it is reasonable to consider aspirin at a higher (325 mg/d) rather than a lower dose (81 mg/d), presumably to prevent aspirin resistance, but the benefits are not well established (class IIa, level A)<br>• Combination therapy with aspirin plus clopidogrel for 1 year after on-pump CABG may be considered in patients without recent ACS, but the benefits are not well established (class IIb, level A) | **AHA 2015 Statement on Secondary Prevention After Coronary Artery Bypass Graft Surgery**[4] |
| **Post-PCI** | • Dual antiplatelet therapy (in the form of aspirin plus a $P2Y_{12}$ inhibitor) is indicated for ≥12 months in patients undergoing stent implantation (class I, level B)<br>• Dual antiplatelet therapy in the form of aspirin plus either clopidogrel, ticagrelor, or prasugrel is recommended for >12 months after PCI, unless there are contraindications such as excessive risk of bleeding (class IIb, level A) | **ACC/AHA 2016 Guideline Focused Update on Duration of Dual Antiplatelet Therapy in Patients With Coronary Artery Disease**[5] |
| **Carotid Endarterectomy (CEA)** | Aspirin (81-325 mg/d) is recommended before CEA and may be continued indefinitely postoperatively (class I, level A).<br>Beyond the first month after CEA, aspirin (75-325 mg/d), clopidogrel (75 mg/d), or the combination of low-dose aspirin (25 mg) plus extended-release dipyridamole (200 mg) twice daily should be administered for long-term prophylaxis against ischemic cardiovascular events (class I, level B). | **ASA/ACCF/AHA 2011 Guidelines**[6] |
| | In women who are to undergo CEA, aspirin is recommended unless contraindicated. NOTE: A specific aspirin dose is not given for this recommendation. (class I, level C) | **AHA/ASA 2014 Stroke Prevention Guidelines for Women**[7] |
| **Recurrent Ischemic Stroke and TIA** | Aspirin (50-325 mg/d) monotherapy, the combination of aspirin (25 mg) and extended-release dipyridamole (200 mg) twice daily, or clopidogrel (75 mg) is indicated as initial therapy after TIA or ischemic stroke for prevention of future stroke (class I, level A for monotherapy; class I, level B for combination with dipyridamole; class IIb, level B for clopidogrel). | **AHA/ASA 2014 Guidelines for Stroke Prevention After Stroke or TIA**[8] |

AATS=American Association for Thoracic Surgery; ACC=American College of Cardiology; ACCF=American College of Cardiology Foundation; ACP=American College of Physicians; ACS=acute coronary syndrome; AHA=American Heart Association; ASA=American Stroke Association; CABG=coronary artery bypass graft; MI=myocardial infarction; NSTE=non–ST-segment elevation; NSTEMI=non–ST-elevation myocardial infarction; PCI=percutaneous coronary intervention; PCNA=Preventive Cardiovascular Nurses Association; SCAI=Society for Cardiovascular Angiography and Interventions; STEMI=ST-elevation myocardial infarction; STS=Society of Thoracic Surgeons; TIA=transient ischemic attack.

# Summary of the ACC/AHA Clinical Practice Guideline Recommendation Classification System

## Applying Class of Recommendation and Level of Evidence to Clinical Strategies, Interventions, Treatments, or Diagnostic Testing in Patient Care* (Updated August 2015)[5]

### Class (Strength) of Recommendation

**Class I (Strong)** — **Benefit>>>Risk**

**Suggested phrases for writing recommendations**

- Is recommended
- Is indicated/useful/effective/beneficial
- Should be performed/administered/other

**Comparative effectiveness phrases†**

- Treatment/strategy A is recommended/indicated in preference to treatment B
- Treatment/strategy A should be chosen over treatment B

**Class IIa (Moderate)** — **Benefit>>Risk**

**Suggested phrases for writing recommendations**

- Is reasonable
- Can be useful/effective/beneficial

**Comparative effectiveness phrases†**

- Treatment/strategy A is probably recommended/indicated in preference to treatment B
- It is reasonable to choose treatment A over treatment B

**Class IIb (Weak)** — **Benefit≥Risk**

**Suggested phrases for writing recommendations**

- May/might be reasonable
- May/might be considered
- Usefulness/effectiveness is unknown/unclear/uncertain or not well established

**Class III: No Benefit (Moderate)** — **Benefit=Risk**
(Generally, level of evidence A or B use only)

**Suggested phrases for writing recommendations**

- Is not recommended
- Should not be performed/administered/other
- Is not indicated/useful/effective/beneficial

**Class III: Harm (Strong)** — **Risk>Benefit**

**Suggested phrases for writing recommendations**

- Potentially harmful
- Causes harm
- Should not be performed/administered/other
- Associated with excess morbidity/mortality

### Level (Quality) of Evidence‡

**Level A**

- High-quality evidence† from more than 1 randomized, controlled trial
- Meta-analyses of high-quality randomized, controlled trials
- One or more randomized, controlled trials corroborated by high-quality registry studies

**Level B-R (Randomized)**

- Moderate-quality evidence† from 1 or more randomized, controlled trials
- Meta-analyses of moderate-quality randomized, controlled trials

**Level B-NR (Nonrandomized)**

- Moderate-quality evidence† from 1 or more well-designed, well-executed nonrandomized studies, observational studies, or registry studies
- Meta-analyses of such studies

**Level C-LD (Limited Data)**

- Randomized or nonrandomized observational registry studies with limitations of design or execution
- Meta-analyses of such studies
- Physiological or mechanistic studies in human subjects

**Level C-EO (Expert Opinion)**

- Consensus of expert opinion based on clinical experience

Class of recommendation and level of evidence are determined independently (any class may be paired with any level).

A recommendation with level of evidence C does not imply that the recommendation is weak. Many important clinical questions addressed in guidelines do not lend themselves to clinical trials. Although randomized, controlled trials are unavailable, there may be a very clear clinical consensus that a particular test or therapy is useful or effective.

*The outcome or result of the intervention should be specified (an improved clinical outcome, increased diagnostic accuracy, or incremental prognostic information).

†For comparative effectiveness recommendations (class I and IIa; level A and B only), studies that support the use of comparator verbs should involve direct comparisons of the treatments of strategies being evaluated.

‡The method of assessing quality is evolving, including the application of standardized, widely used, and preferably validated evidence-grading tools; and for systematic reviews, the incorporation of an evidence review committee.

**References: 1.** Amsterdam EA, Wenger NK, Brindis RG, et al. *J Am Coll Cardiol*. 2014;64:e139–228. **2.** O'Gara PT, Kushner FG, Ascheim DD, et al. *J Am Coll Cardiol*. 2013;61:e78-140. doi:10.1016/j.jacc.2012.11.019. **3.** Fihn SD, Gardin JM, Abrams J, et al. *J Am Coll Cardiol*. 2012;60:e44-e164. **4.** Kulik A, Ruel M, Jneid H, et al. *Circulation*. 2015;131. doi:10.1161/CIR.0000000000000182. **5.** Levine GN, Bates ER, Bittl JA, et al. *Circulation*. 2016;133. doi:10.1161/CIR.0000000000000404. **6.** Brott TG, Halperin JL, Abbara S, et al. *Stroke*. 2011;42:e464-e540. **7.** Bushnell C, McCullough LD, Awad IA, et al. *Stroke*. 2014;45:1545–1588. **8.** Kernan WN, Ovbiagele B, Black HR, et al. *Stroke*. 2014;45(7):2160-2236.