

## Antiplatelets for Recurrent Ischemic Stroke

full update May 2025

The chart below provides dosing, cost, and other information to help you choose among options for recurrent ischemic stroke. **The information in the chart pertains to secondary stroke prevention in general and is not specific to patients who have a stroke while on aspirin.** Below the chart, find tips and clinical pearls about antiplatelet regimens.

| Drug   | Dose   | Comments   | Cost/30 days <sup>a</sup> |
|--|--|--|---------------------------|
| <b>Preferred options<sup>1,3,10</sup></b>  |  |  |                           |
| Aspirin  | LD: see comments<br>MD: usually 81 mg once daily (see comments)  | <ul style="list-style-type: none"> <li>• <b>Loading dose</b>, usually 160 to 300 mg daily, should be started within 24 to 48 hours of an acute ischemic stroke.<sup>11</sup></li> <li>• <b>Maintenance dose:</b> <ul style="list-style-type: none"> <li>○ Guidelines recommend 80 to 325 mg (Canada), 75 to 100 mg (ACCP), and 50 to 325 mg (AHA/ASA) once daily.<sup>1,3,10</sup></li> <li>○ Limited data for doses &lt;75 mg.<sup>3</sup></li> <li>○ Bleeding complications increase at doses &gt;100 mg daily.<sup>3</sup></li> </ul> </li> </ul>   | US: <\$1<br>Canada: <\$2  |
| Clopidogrel (Plavix, generics)   | LD: see comments<br>MD: 75 mg once daily <sup>1,10</sup>   | <ul style="list-style-type: none"> <li>• There are very limited data with loading doses of clopidogrel after an acute ischemic stroke (mostly limited to minor strokes or high-risk TIAs). However, loading doses of 300 to 600 mg rapidly inhibit platelets compared to platelet inhibition taking about five days with daily doses of 75 mg.<sup>23</sup></li> <li>• Maintenance dosing efficacy similar to dipyridamole ER/aspirin (Aggrenox).<sup>6</sup></li> <li>• May have lower GI bleed risk and stomach upset compared to aspirin.<sup>7</sup></li> </ul>  | US: <\$5<br>Canada: <\$10 |
| <b>SHORT-TERM</b><br>aspirin plus clopidogrel, followed by EITHER aspirin or clopidogrel alone | LD: see comments<br>MD: Low-dose aspirin (usually 81 mg) plus clopidogrel 75 mg once daily usually for <b>21 days</b> (see comments), then continue EITHER aspirin or clopidogrel. <sup>10,19,20</sup> | <ul style="list-style-type: none"> <li>• <b>Loading dose:</b> of the three major RCTs, POINT used clopidogrel 600 mg x 1 with aspirin 162 mg x 5 days, CHANCE used clopidogrel 300 mg x 1 with aspirin 75 to 300 mg x 1, and INSPIRES used clopidogrel 300 mg x 1 with aspirin 100 to 300 mg x 1.<sup>2,8,22</sup> Canadian guidelines recommend an aspirin LD of 160 to 300 mg.<sup>10</sup></li> <li>• Start as soon as possible, ideally within 72 hours, or at least within seven days, of:<sup>1,2,8,10,18,22</sup> <ul style="list-style-type: none"> <li>○ <b>High-risk TIA</b> (e.g., ABCD<sup>2</sup> score<sup>b</sup> ≥4).</li> <li>○ Minor ischemic stroke (e.g., NIHSS score<sup>c</sup> ≤3; INSPIRES used NIHSS score<sup>c</sup> ≤5).</li> </ul> </li> <li>• Prevents stroke within three months better than aspirin alone (NNT ~53) [Evidence level A-1].<sup>8,20</sup> Significant impact on mortality or recurrent TIA has not been shown.<sup>19,20,22</sup> Safety/efficacy with thrombolysis or anticoagulation unknown.<sup>8,20</sup></li> </ul> | US: <\$5<br>Canada: ~\$10 |

| Drug  | Dose  | Comments  | Cost/30 days <sup>a</sup>   |
|---|---|---|-----------------------------|
| <b>Preferred options, continued<sup>1,3,10</sup></b>  |   |   |                             |
| <b>SHORT-TERM</b><br>aspirin plus clopidogrel, followed by EITHER aspirin or clopidogrel alone, continued |   | <ul style="list-style-type: none"> <li>• May cause more major bleeding (e.g., bleeding requiring or prolonging hospital stay, death due to bleeding) or moderate-to-severe GUSTO bleeding compared to aspirin alone (NNH ~ 200) [Evidence Level A-1].<sup>8,22,d</sup> The risk of intracranial hemorrhage was increased (NNH ~ 333) in INSPIRES wherein the window for initiation was 72 hours.<sup>8</sup></li> <li>• Generally, limit the combination of aspirin plus clopidogrel to <b>not more than 21 days</b> to maximize benefits and minimize risks.<sup>10,19,20</sup> <ul style="list-style-type: none"> <li>○ Can consider using <b>ten days</b> instead of 21 days for patients at higher bleeding risk (e.g., taking an NSAID or anticoagulant).<sup>19,20</sup></li> <li>○ Can consider combination therapy for <b>up to 90 days</b> after stroke or TIA attributable to severe stenosis (70% to 99% ) of a major intracranial artery if bleeding risk is low (based on SAMMPRIS study).<sup>1,10</sup></li> </ul> </li> <li>• After 21 days of combination therapy, continue EITHER aspirin or clopidogrel as monotherapy (aspirin 81 mg/day generally preferred).<sup>8,19,20</sup></li> <li>• Avoid combining aspirin and clopidogrel in patients who have a major stroke, due to increased risk for intracranial bleeding.<sup>19</sup> Also, there are no safety data for short-term aspirin plus clopidogrel in patients who received alteplase.<sup>2,22</sup></li> </ul> |                             |
| Dipyridamole ER/aspirin (US)  | LD: none <sup>1</sup><br>MD: Dipyridamole ER 200 mg/aspirin 25 mg BID <sup>1</sup>  | <ul style="list-style-type: none"> <li>• May prevent one more event (vascular death, stroke, MI, major bleed) for every 100 patients treated/year vs aspirin.<sup>4</sup></li> <li>• Bleeding risk similar to aspirin.<sup>4</sup></li> <li>• Twice-daily dosing. Expensive. One in four patients discontinued due to headache.<sup>4</sup></li> <li>• Do not substitute <b>immediate-release</b> dipyridamole plus aspirin for the combo ER product; no proof it's as effective.</li> </ul>  | US: ~\$60                   |
| <b>Non-preferred options<sup>1,3,10</sup></b>   |   |   |                             |
| <b>SHORT-TERM</b> aspirin plus ticagrelor (Brilinta)<br><br><i>Continued...</i>                           | LD: <b>Aspirin:</b> 300 to 325 mg;<br><b>Ticagrelor:</b> 180 mg<br>MD: <b>Aspirin:</b> 75 to 100 mg/day<br><b>Ticagrelor:</b> 90 mg BID for 30 days | <ul style="list-style-type: none"> <li>• Aspirin plus ticagrelor for 30 days prevents one stroke or death within 30 days compared to aspirin alone, NNT = 91 [Evidence Level A-1].<sup>17</sup> However, there is no significant impact on mortality alone or disability scores.<sup>17</sup> In addition, use for 30 days may cause one episode of severe bleeding (e.g., fatal bleeding, intracranial hemorrhage [most common], or other bleeding that caused hemodynamic compromise requiring intervention) compared to aspirin alone (NNH = 263) [Evidence Level A-1].<sup>17</sup></li> </ul>  | US: ~\$140<br>Canada: ~\$25 |

| Drug  | Dose  | Comments  | Cost/30 days <sup>a</sup> |
|---|---|---|---------------------------|
| <b>Non-preferred options, continued<sup>1,3</sup></b> |   |   |                           |
| <b>SHORT-TERM</b> aspirin plus ticagrelor, continued  |   | <ul style="list-style-type: none"> <li>○ Based on subgroup analysis of this study, ticagrelor could be added to aspirin for up to 30 days for patients with minor stroke or high-risk TIA with <math>\geq 30\%</math> stenosis of a major intracranial artery on the same side as the event.<sup>1,10</sup></li> <li>○ Note that ticagrelor ALONE (180 mg LD, followed by MD of 90 mg BID) for 90 days is NOT superior to aspirin (300 mg LD, followed by 100 mg daily) in preventing the combined endpoint of stroke, myocardial infarction (MI), or death within 90 days in minor stroke (NIHSS score<sup>c</sup> <math>\leq 5</math>) or high-risk TIA (ABCD<sup>2</sup> score<sup>b</sup> <math>\geq 4</math>) [Evidence Level A-1].<sup>16</sup></li> <li>● There are no safety data for short-term aspirin plus ticagrelor in patients who received alteplase.<sup>17</sup></li> <li>● If using aspirin plus ticagrelor, don't exceed 30 days and ideally start within 24 hours of:<sup>17</sup> <ul style="list-style-type: none"> <li>○ <b>High-risk TIA</b> (e.g., ABCD<sup>2</sup> score<sup>b</sup> <math>\geq 6</math>).</li> <li>○ <b>Minor ischemic stroke</b> (e.g., NIHSS score<sup>c</sup> <math>\leq 5</math>).</li> </ul> </li> <li>● May cause dyspnea.<sup>17</sup></li> <li>● Twice-daily dosing. Expensive.</li> </ul> |                           |
| Cilostazol (US only)                                  | LD: none <sup>3</sup><br>MD: 100 mg BID <sup>3</sup>  | <ul style="list-style-type: none"> <li>● Better than no antiplatelet at all if patient cannot take aspirin or clopidogrel.<sup>3</sup></li> </ul>   | ~\$35                     |
| Cilostazol plus aspirin or clopidogrel                | LD: none<br>MD: cilostazol 100 mg BID added to aspirin or clopidogrel (see comments) <sup>1</sup> | <ul style="list-style-type: none"> <li>● Can consider adding cilostazol to aspirin or clopidogrel for patients with stroke or TIA due to 50% to 99% stenosis of a major intracranial artery.<sup>1</sup> <ul style="list-style-type: none"> <li>○ This recommendation is based on Level B-1 evidence in mostly Asian populations (TOSS-1, TOSS-2, CATHARSIS, CSPS).<sup>1</sup></li> </ul> </li> <li>● The role of cilostazol for secondary prevention after stroke due to small vessel disease needs more study.<sup>1</sup></li> </ul>  | ~\$40                     |

a. Pricing based on wholesale acquisition cost (WAC). US medication pricing by Elsevier, accessed May 2025.

b. See <https://www.mdcalc.com/abcd2-score-tia>.

c. See <https://www.ninds.nih.gov/health-information/stroke/assess-and-treat/nih-stroke-scale>.

d. NNH of 200 represents 90 days of aspirin plus clopidogrel. Risk may be lower with only ten to 21 days of dual-antiplatelet therapy.

**Abbreviations:** ACCP = American College of Chest Physicians; AHA = American Heart Association; ASA = American Stroke Association; BID = twice daily; ER = extended-release; GUSTO = Global Utilization of Streptokinase and Tissue Plasminogen Activator for Occluded Coronary Arteries; LD = loading dose; MD = maintenance dose; NIHSS = National Institutes of Health Stroke Scale; TIA = transient ischemic attack.

## Tips and Clinical Pearls about Antiplatelet Regimens

- About 5% of patients who have a minor ischemic stroke or transient ischemic attack will have another stroke within a year.<sup>21</sup> The risk is especially high in the first week.<sup>10</sup>
- The choice among aspirin, clopidogrel, or dipyridamole/aspirin should be individualized.<sup>10</sup>
- Dual antiplatelet therapy can be considered for certain patients, but only short-term.<sup>1</sup>
- If a patient has had a stroke or TIA despite aspirin therapy, switching to another antiplatelet agent can be considered.<sup>10</sup>
  - The risk of a recurrent stroke may be lower if these patients are switched to a different long-term antiplatelet, **especially in the first few days** after a stroke or TIA [Evidence Level B-2].<sup>12</sup> However, there is no proof that any agent is more effective than aspirin in these patients.<sup>1,10</sup>
  - There is no evidence that increasing the aspirin dose improves efficacy.<sup>1</sup>
  - Check adherence, screen for drug interactions that might reduce antiplatelet efficacy, consider atrial fibrillation, and optimize statin dose, blood pressure, and glycemic control.<sup>9</sup>
- For most patients who receive intravenous thrombolysis for stroke (e.g., alteplase), generally delay aspirin therapy for at least 24 hours, but consider comorbidities.<sup>11</sup>
- Prasugrel (Effient) is contraindicated in patients with a history of stroke or TIA due to increased risk of intracranial bleeding.<sup>14,15</sup>
- If a patient has a gastrointestinal (GI) bleed on aspirin, stop the aspirin and add a proton pump inhibitor (PPI).<sup>13,24</sup> Post-endoscopy, once hemostasis is acceptable, restart aspirin within seven days (ideally within three days, and immediately if rebleeding risk is low).<sup>5,13,24</sup>
- Do not use anticoagulants unless the patient has another indication for one (e.g., atrial fibrillation).<sup>10</sup>

*Users of this resource are cautioned to use their own professional judgment and consult any other necessary or appropriate sources prior to making clinical judgments based on the content of this document. Our editors have researched the information with input from experts, government agencies, and national organizations. Information and internet links in this article were current as of the date of publication.*

### Levels of Evidence

In accordance with our goal of providing Evidence-Based information, we are citing the **LEVEL OF EVIDENCE** for the clinical recommendations we publish.

| Level    | Definition  | Study Quality   |
|----------|---|---|
| <b>A</b> | Good-quality patient-oriented evidence.*  | <ol style="list-style-type: none"> <li>1. High-quality randomized controlled trial (RCT)</li> <li>2. Systematic review (SR)/Meta-analysis of RCTs with consistent findings</li> <li>3. All-or-none study</li> </ol>                   |
| <b>B</b> | Inconsistent or limited-quality patient-oriented evidence.*   | <ol style="list-style-type: none"> <li>1. Lower-quality RCT</li> <li>2. SR/Meta-analysis with low-quality clinical trials or of studies with inconsistent findings</li> <li>3. Cohort study</li> <li>4. Case control study</li> </ol> |
| <b>C</b> | Consensus; usual practice; expert opinion; disease-oriented evidence (e.g., physiologic or surrogate endpoints); case series for studies of diagnosis, treatment, prevention, or screening. |   |

**\*Outcomes that matter to patients** (e.g., morbidity, mortality, symptom improvement, quality of life).

[Adapted from Ebell MH, Siwek J, Weiss BD, et al. Strength of Recommendation Taxonomy (SORT): a patient-centered approach to grading evidence in the medical literature. *Am Fam Physician* 2004;69:548-56. <https://www.aafp.org/pubs/afp/issues/2004/0201/p548.html>.]

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## Acute Ischemic Stroke Pharmacotherapy Checklist

**Full update June 2026**

Use this checklist to help you keep pharmacotherapy of acute ischemic stroke patients on track from admission to discharge, and prevent readmission.

| Goal  | Suggested Approach  |
|---|---|
| <b>Identify candidates for IV thrombolysis.</b> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Check and correct blood glucose to rule out hypoglycemic or severe hyperglycemic symptoms as stroke mimics.<sup>1</sup></li> <li><input type="checkbox"/> Assess clinical stroke severity, ideally using the NIHSS (<a href="https://www.ninds.nih.gov/health-information/stroke/assess-and-treat/nih-stroke-scale">https://www.ninds.nih.gov/health-information/stroke/assess-and-treat/nih-stroke-scale</a>).<sup>1</sup></li> <li><input type="checkbox"/> Use your institutional checklist for patient selection for IV thrombolysis.<sup>6</sup> Faster treatment = better functional outcomes and better chance that benefit will outweigh risks.<sup>1</sup> In general, patients for whom IV thrombolysis' benefit outweighs risks are those with disabling deficits, without contraindications, who can receive IV thrombolysis:                         <ul style="list-style-type: none"> <li><input type="checkbox"/> within 4.5 hours of symptom onset.<sup>1</sup></li> <li><input type="checkbox"/> within 4.5 hours of symptom recognition (onset unknown, e.g., symptoms upon awakening) if DW-MRI lesion is smaller than one-third of the MCA territory and there is no clearly visible signal change on FLAIR.<sup>1</sup></li> <li><input type="checkbox"/> within 9 hours from the midpoint of sleep if they awaken with symptoms and have salvageable ischemic penumbra on automated perfusion imaging.<sup>1</sup></li> <li><input type="checkbox"/> within 4.5 to 9 hours from last-known normal and have salvageable ischemic penumbra on automated perfusion imaging.<sup>1</sup></li> </ul> </li> <li><input type="checkbox"/> Do NOT delay administration                         <ul style="list-style-type: none"> <li><input type="checkbox"/> until lab results are available, unless there is a reason to suspect a hematologic contraindication.<sup>1</sup></li> <li><input type="checkbox"/> to get multimodal neuroimaging (e.g., CTA/MRA, CT/MR perfusion imaging), or MRI to rule out cerebral microbleeds.<sup>1</sup> <ul style="list-style-type: none"> <li><input type="checkbox"/> Be aware that if patient has a <b>known</b> high burden of cerebral microbleeds (e.g., &gt;10) on MRI, the benefit of IV thrombolysis is unknown and the risk of symptomatic intracerebral hemorrhage might outweigh benefit.<sup>1</sup></li> </ul> </li> </ul> </li> <li><input type="checkbox"/> Be aware that:                         <ul style="list-style-type: none"> <li><input type="checkbox"/> antiplatelet therapy is NOT a contraindication to thrombolysis.<sup>1</sup></li> <li><input type="checkbox"/> a DOAC dose within the previous 48 hours is a relative contraindication to IV thrombolysis.<sup>1</sup></li> <li><input type="checkbox"/> early mild to moderate ischemic changes on brain imaging are NOT a contraindication to thrombolysis.<sup>1</sup></li> </ul> </li> </ul> |

|   |  |
|---|--|
| <b>Dose IV thrombolytics correctly.</b> | <ul style="list-style-type: none"><li><input type="checkbox"/> Choose either alteplase or tenecteplase.<sup>1,7</sup> Tenecteplase is easier to use, but alteplase has more data beyond 4.5 hours.<sup>1,4</sup></li><li><input type="checkbox"/> Obtain patient weight for accurate dosing <b>if it will not delay thrombolysis.</b><sup>1,2</sup></li><li><input type="checkbox"/> Alteplase: 0.9 mg/kg (max 90 mg) over 60 min., with 10% of the dose given as a bolus over 1 minute.<sup>1</sup></li><li><input type="checkbox"/> Tenecteplase: 0.25 mg/kg (max 25 mg) IV push.<sup>1</sup><ul style="list-style-type: none"><li>• &lt;60 kg: 15 mg (3 mL)</li><li>• 60 to &lt;70 kg: 17.5 mg (3.5 mL)</li><li>• 70 to &lt;80 kg: 20 mg (4 mL)</li><li>• 80 to &lt;90 kg: 22.5 mg (4.5 mL)</li><li>• ≥90 kg: 25 mg (5 mL)</li></ul></li></ul>  |
| <b>Control blood pressure</b>           | <ul style="list-style-type: none"><li><input type="checkbox"/> Carefully reduce and maintain blood pressure to &lt;185/110 mmHg before IV thrombolysis.<sup>1</sup></li><li><input type="checkbox"/> Consider one of the following:<ul style="list-style-type: none"><li>○ Clevidipine: 1 to 2 mg/h, doubling every 90 seconds until target is close, then increase more slowly every 5 to 10 minutes (max 21 mg/h for 72 hours).<sup>3</sup></li><li>○ Nicardipine: 5 mg/h, increasing by 2.5 mg/h every 5 to 15 minutes (max 15 mg/h).<sup>3</sup></li><li>○ Labetalol: 10 to 20 mg over 1 to 2 minutes. May repeat once.<sup>8</sup></li><li>○ Other options: esmolol, hydralazine, enalaprilat<sup>3,8</sup></li></ul></li><li><input type="checkbox"/> Maintain blood pressure &lt;180/105 mmHg for 24 hours post-reperfusion (including during endovascular thrombectomy), but avoid SBP &lt;140 mmHg.<sup>1</sup><ul style="list-style-type: none"><li>○ Check blood pressure and neuro checks every 15 min for the first 2 hours of thrombolysis, then every 30 min for 6 hours, then every hour for 16 hours.<sup>1</sup> Increase monitoring frequency if systolic is &gt;180 mmHg or diastolic is &gt;105 mmHg.<sup>1</sup></li><li>○ If SBP &gt;180-230 or DBP &gt;105-120 mmHg, consider labetalol 10 mg bolus followed by 2 to 8 mg/min infusion, or nicardipine or clevidipine as above. If blood pressure is not controlled or diastolic &gt;140 mmHg, consider sodium nitroprusside.<sup>8</sup></li></ul></li><li><input type="checkbox"/> For patients not receiving IV thrombolysis or endovascular thrombectomy with blood pressure ≥220/120 mmHg and no indication for urgent blood pressure control (e.g., aortic dissection, preeclampsia, acute coronary syndrome), there is unclear benefit of starting/restarting antihypertensives within the first 48 to 72 hours.<sup>1</sup></li><li><input type="checkbox"/> Start/restart antihypertensive 72 hours after symptom onset if blood pressure is above goal and patient is neurologically stable.<sup>3</sup><ul style="list-style-type: none"><li>○ See our infographics, <i>Treatment of Hypertension</i> and <i>Hypertension Goals in Adults</i> for antihypertensive options and blood pressure goals.</li></ul></li><li><input type="checkbox"/> If patient is hypotensive, increase blood pressure to support organ function (e.g., with crystalloids or colloids).<sup>1</sup></li></ul> |
| <b>Manage blood glucose.</b>            | <ul style="list-style-type: none"><li><input type="checkbox"/> Check glucose before thrombolysis; severe hypo- or hyperglycemia symptoms may mimic stroke symptoms<sup>1</sup></li><li><input type="checkbox"/> Treat glucose &lt;60 mg/dL.<sup>1</sup></li><li><input type="checkbox"/> Aim for a blood glucose goal of 140 to 180 mg/dL.<sup>1</sup></li></ul>   |

|   |  |
|---|--|
| <b>Treat body temperature &gt;37.5°C.</b> | <ul style="list-style-type: none"><li><input type="checkbox"/> Treat infection, or other underlying causes of fever, if present.<sup>1</sup></li><li><input type="checkbox"/> Use an antipyretic or cooling techniques to reduce temperature.<sup>1,7</sup></li></ul>  |
| <b>Manage thrombolysis complications.</b> | <p><b>Angioedema</b></p> <ul style="list-style-type: none"><li><input type="checkbox"/> Discontinue thrombolytic and ACEI.<sup>1</sup></li><li><input type="checkbox"/> Give methylprednisolone 125 mg IV.<sup>1</sup></li><li><input type="checkbox"/> Give diphenhydramine 50 mg IV.<sup>1</sup></li><li><input type="checkbox"/> Give famotidine 20 mg IV.<sup>1</sup></li><li><input type="checkbox"/> For persistent angioedema, give epinephrine 1 mg/mL (0.1%) 0.3 mL subcutaneously or via nebulizer (0.5 mL).<sup>1</sup></li><li><input type="checkbox"/> Consider medications used to treat hereditary angioedema: icatibant (e.g., Firazyr) 30 mg subcutaneous injection in abdomen repeated every 6 hours if needed (max 3 injections in 24 hours) or C1 esterase inhibitor (e.g., Berinert 20 IU/kg IV x 1).<sup>1</sup></li></ul> <p><b>Intracranial bleed within 24 hours of thrombolysis</b><br/>In addition to appropriate labs, imaging, and supportive care:</p> <ul style="list-style-type: none"><li><input type="checkbox"/> Stop thrombolytic.</li></ul> <p>Bleeding reversal options:</p> <ul style="list-style-type: none"><li><input type="checkbox"/> Cryoprecipitate (factor VIII source) 10 units over 10 to 30 min. Repeat if needed to keep fibrinogen <math>\geq 150</math> mg/dL.<sup>1,8</sup><ul style="list-style-type: none"><li>o Expect 10 units to raise fibrinogen by 50 mg/dL.<sup>8</sup></li><li>o Expect onset in 1 hr, peak in 12 hours.<sup>8</sup></li></ul></li><li><input type="checkbox"/> Tranexamic acid 1,000 mg IV over 10 min OR aminocaproic acid 4 to 5 g over 1 hr. Repeat until bleeding controlled.<ul style="list-style-type: none"><li>o Expect peak in 3 hours.<sup>1</sup></li></ul></li></ul> |
| <b>Start an antiplatelet.</b>             | <ul style="list-style-type: none"><li><input type="checkbox"/> Start aspirin 160 to 300 mg daily within 24 to 48 hours of stroke onset.<sup>1</sup><ul style="list-style-type: none"><li>o Generally, wait 24 hours after thrombolysis is given to start aspirin, but consider comorbidities.<sup>1</sup> Check a CT or MRI 24 hours post-thrombolysis to rule out a bleed before starting antothrombotics.<sup>1</sup></li></ul></li><li><input type="checkbox"/> For patients with minor stroke or high-risk TIA (who do not receive thrombolysis), consider the DAPT options described in our chart, <i>Antiplatelets for Recurrent Ischemic Stroke</i>.</li></ul>  |
| <b>Prevent deep vein thrombosis.</b>      | <ul style="list-style-type: none"><li><input type="checkbox"/> In immobile stroke patients, use intermittent pneumatic compression to reduce the risk of DVT.<sup>1</sup><ul style="list-style-type: none"><li>o The benefit of low-dose subcutaneous heparin or low-molecular-weight heparin in this population is unclear.<sup>1</sup></li><li>o If you do not give prophylaxis, document why (by day 2 of admission) to meet quality measures (US).<sup>5</sup></li></ul></li></ul>   |

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| <b>Identify and treat depression.</b>                      | <ul style="list-style-type: none"><li><input type="checkbox"/> Screen post-stroke patients for depression, or ensure this is done at follow-up.<sup>1</sup><ul style="list-style-type: none"><li><input type="checkbox"/> For <b>screening</b>, consider use a brief tool such as the PHQ-9 (<a href="https://www.apa.org/depression-guideline/patient-health-questionnaire.pdf">https://www.apa.org/depression-guideline/patient-health-questionnaire.pdf</a>).<sup>1</sup></li></ul></li><li><input type="checkbox"/> Treat depression if identified.<sup>1</sup><ul style="list-style-type: none"><li><input type="checkbox"/> Consider an SSRI due to evidence in stroke patients.<sup>1,9</sup></li></ul></li></ul>   |
| <b>Optimize lipid-lowering therapy.</b>                    | <ul style="list-style-type: none"><li><input type="checkbox"/> For help, see our FAQs, <i>Cholesterol Guidelines (United States)</i> or <i>Canadian Dyslipidemia Recommendations</i>.</li></ul>  |
| <b>Help patient stop smoking.</b>                          | <ul style="list-style-type: none"><li><input type="checkbox"/> See our chart, <i>Smoking Cessation Drug Therapy</i>, for options.</li></ul>  |
| <b>Quickly identify and respond to in-hospital stroke.</b> | <ul style="list-style-type: none"><li><input type="checkbox"/> Participate in the in-hospital stroke response team (this can be the same stroke team that responds to stroke patients that arrive in the emergency department).<sup>6</sup><ul style="list-style-type: none"><li><input type="checkbox"/> If a pharmacist is not part of the stroke response team, have a policy that the charge nurse will contact the pharmacy to inform them that a patient is being assessed for possible stroke.<sup>6</sup></li></ul></li><li><input type="checkbox"/> Participate in mock stroke alerts.<sup>6</sup></li><li><input type="checkbox"/> Educate pharmacy staff on the signs and symptoms of stroke, and activation of the stroke alert.<sup>6</sup></li><li><input type="checkbox"/> Have a policy that the stroke response team sends thrombolytic orders to the pharmacy STAT.<sup>6</sup></li><li><input type="checkbox"/> Consider use of a runner to deliver the thrombolytic.<sup>6</sup></li><li><input type="checkbox"/> Advocate for use of shorter-acting sedatives to allow for frequent neurological evaluation to promote rapid identification of stroke symptoms.<sup>6</sup></li></ul> |

**Abbreviations:** ACEI = angiotensin-converting enzyme inhibitor; BID = twice daily; CT = computed tomography; CTA = computed tomography angiography; DAPT = dual antiplatelet therapy; DBP = diastolic blood pressure; DOAC = direct oral anticoagulant; DW-MRI = diffusion-weighted magnetic resonance imaging; DVT = deep vein thrombosis; FLAIR = fluid attenuated inversion recovery; IV = intravenous; MR = magnetic resonance; MRA = magnetic resonance angiography; MRI = magnetic resonance imaging; mRS = modified Rankin Scale; NIHSS = National Institutes of Health Stroke Score; PHQ = Patient Health Questionnaire; SBP = systolic blood pressure; SSRI = selective serotonin reuptake inhibitor; TIA = transient ischemic attack.

*Users of this resource are cautioned to use their own professional judgment and consult any other necessary or appropriate sources prior to making clinical judgments based on the content of this document. Our editors have researched the information with input from experts, government agencies, and national organizations. Information and internet links in this article were current as of the date of publication.*

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