Acute Ischemic Stroke Management

2026 AHA/ASA Guideline — Resident Reference

Source: *Prabhakaran S, Gonzalez NR, Zachrison KS, et al. 2026 Guideline for the Early Management of Patients With Acute Ischemic Stroke: A Guideline From the American Heart Association/American Stroke Association. Stroke. 2026;57:eXXX–eXXX. doi:10.1161/STR.0000000000000513*

DRAFT for review — verify against the published PDF before circulating.

What's New vs the 2019 Guideline

- **Tenecteplase (TNK) is now equivalent to alteplase** — both COR 1; 0.25 mg/kg single bolus, max 25 mg.
- **Non-disabling deficits** (e.g., isolated sensory) within 4.5 h: do NOT thrombolyse — DAPT is preferred and recommended (PRISMS, ARAMIS).
- **EVT expanded to large cores:** ASPECTS 3–5 (0–6 h and 6–24 h) is COR 1; ASPECTS 0–2 within 6 h is COR 2a in selected patients <80 y.
- **Basilar artery occlusion:** EVT within 24 h, NIHSS ≥10, PC-ASPECTS ≥6 is COR 1 (ATTENTION, BAOCHE).
- **First-time pediatric EVT** recommendations (≥6 y within 6–24 h, COR 2a; 28 d – 6 y within 24 h, COR 2b).
- **Tight glucose control (80–130 mg/dL) is NOT recommended** — target 140–180 mg/dL (SHINE).
- **Intensive BP <140 after IVT is NOT recommended;** after successful EVT (mTICI 2b/2c/3) it is HARMFUL (ENCHANTED-2).
- **Adjuvant argatroban / eptifibatide with IVT:** not beneficial (MOST); tirofiban pre-EVT: not useful (RESCUE-BT).
- **Early DOAC for AFib + milder stroke** is reasonable (ELAN, OPTIMAS, TIMING) — previously waited 4–14 d.
- **Pharyngeal Electrical Stimulation (PES)** for severe post-stroke dysphagia: COR 2a (new).
- **IV glibenclamide** for malignant edema: not recommended (CHARM trial negative).
- **Mobile Stroke Units** (where available): COR 1.

1. IV Thrombolysis (IVT)

Indications

- Disabling deficits suggestive of AIS with onset <4.5 h — **COR 1, Level A**. Treat as quickly as possible regardless of NIHSS, with safe administration.
- Wake-up stroke / unknown onset >4.5 h with **DWI-positive / FLAIR-negative** MRI mismatch within 4.5 h of symptom recognition — **COR 2a, B-R**.
- 4.5–9 h from last known well (or up to 9 h from midpoint of sleep) with salvageable penumbra on automated CTP / MR PWI — **COR 2a, B-R** (EXTEND, TRACE-3, TIMELESS).
- Patients with LVO unable to receive EVT, 4.5–24 h with salvageable penumbra: IVT may be beneficial at expert centers — **COR 2b, B-R** (TRACE-III).

Choice of thrombolytic — NEW (both equivalent)

Agent	Dose	Class
Tenecteplase (TNK)	0.25 mg/kg IV single bolus, max 25 mg	COR 1, Level A
Alteplase	0.9 mg/kg IV (10% bolus, 90% infusion over 60 min), max 90 mg	COR 1, Level A
Tenecteplase 0.4 mg/kg	Not recommended — no benefit, possible harm (NOR-TEST 2)	COR 3 No Benefit, A

> **Why TNK is now first-line-eligible**
>
> TNK = single ~5–10 second bolus → simpler workflow, faster DTN and DIDO times, fewer dosing errors. Phase 3 trials (AcT, TRACE-2, ATTEST-2) showed non-inferiority. *For LVO bridging,* TNK has not been directly compared with alteplase before EVT — pre-specified analysis of ACT showed no difference.

Tenecteplase weight-based dosing (Table 7)

Weight (kg)	TNK dose (mg)	Volume to administer (mL)
<60	15	3
60–<70	17.5	3.5
70–<80	20	4
80–<90	22.5	4.5
≥90	**25 (max)**	**5**

Non-disabling deficits (NEW major change)

In eligible adult patients with AIS presenting within 4.5 h with **mild, non-disabling deficits** (e.g., isolated sensory syndrome), IVT is **NOT recommended** (COR 3 No Benefit, Level B-R). DAPT is preferred and recommended. Based on PRISMS, ARAMIS, TEMPO-2 — DAPT non-inferior to alteplase with fewer hemorrhagic complications.

> **Defining "clearly disabling" at presentation (NIHSS 0–5)**
>
> Would the deficits, if persistent, prevent basic ADLs (BATHE: bathing/dressing, ambulating, toileting, hygiene, eating) or return to work?

Generally CLEARLY disabling:

- Complete hemianopia (NIHSS Vision ≥2)
- Severe aphasia (NIHSS Language ≥2)
- Hemi-extinction or inattention to >1 modality (NIHSS ≥2)
- Any weakness limiting sustained effort against gravity (NIHSS Motor ≥2)

May NOT be clearly disabling:

- Isolated mild aphasia (still able to communicate meaningfully)
- Isolated facial droop
- Mild cortical hand weakness (especially nondominant, NIHSS 0)
- Mild hemisensory or hemisensorimotor loss
- Mild hemiataxia (can still ambulate)

Pre-treatment BP

- SBP <185 AND DBP <110 before IVT — **COR 1, B-NR**
- Use labetalol, nicardipine, or clevidipine; avoid excessive lowering (initial target ~15% reduction).

Extended-window IVT trial selection criteria (Table 3)

Trial	Window	Imaging mismatch
WAKE-UP, THAWS	Unknown onset / wake-up	DWI-positive / FLAIR-negative
EPITHET	3–6 h	PWI/DWI ratio >1.2, PWI–DWI ≥10 mL (Tmax >2 s)
ECASS-4	>4.5–9 h	PWI/DWI ratio ≥1.2, PWI ≥20 mL
EXTEND	>4.5–9 h	CTP or DWI/PWI mismatch >1.2, penumbra–core >10 mL, core <70 mL
TIMELESS	4.5–24 h	RAPID: mismatch ratio >1.8, penumbra >15 mL, core <70 mL
TRACE-3	4.5–24 h	Same as TIMELESS (iStroke software)

Contraindications (Table 8 — summary)

Absolute contraindications

- CT with clear hypodensity attributable to clinical symptoms
- CT with acute intracranial hemorrhage
- Moderate-to-severe TBI within 14 d (LOC >30 min, GCS <13, hemorrhage/contusion/skull fx)
- Neurosurgery (intracranial/spinal) within 14 d
- Acute spinal cord injury within 3 months
- Intra-axial intracranial neoplasm
- Symptoms consistent with infective endocarditis
- Severe coagulopathy: platelets <100k, INR >1.7, aPTT >40 s, PT >15 s
- Known or suspected aortic arch dissection
- ARIA / on amyloid immunotherapy — risk unknown, avoid

Relative contraindications (individualized decision)

- Pre-existing disability / frailty
- **DOAC exposure within 48 h** — individualized; consider timing of last dose, renal function, stroke severity, reversal availability, anti-Xa / dTT assays
- Ischemic stroke within 3 months
- Prior ICH (amyloid angiopathy higher risk than HTN-related)
- Recent major non-CNS trauma 14 d–3 months
- Recent major non-CNS surgery within 10 d
- Recent GI/GU bleeding within 21 d
- Intracranial arterial dissection — safety unknown
- Untreated intracranial vascular malformation — safety unknown
- Recent STEMI within 3 months (consult cards — hemopericardium risk)
- Acute pericarditis (reasonable for major AIS with cards consult)
- LA/LV thrombus (reasonable for disabling AIS with cards consult)
- Systemic active malignancy — onco consult
- Pregnancy / post-partum (consider for moderate-severe stroke, OB consult)
- Dural puncture within 7 d
- Arterial puncture of noncompressible vessel within 7 d
- Moderate-severe TBI 14 d–3 months / Neurosurgery 14 d–3 months

Benefit generally > bleeding risk — IVT is reasonable

- Extracranial cervical artery dissection (reasonably safe within 4.5 h)
- Extra-axial intracranial neoplasm (meningioma)
- Post-angiographic procedural stroke
- Unruptured intracranial aneurysm — low risk
- Stable prior GI/GU bleed (case-by-case)
- Remote MI
- Recreational drug use
- Stroke-mimic uncertainty (IVT-in-mimic ICH risk ~0.5%)
- Moya-Moya disease
- **Sickle cell disease** — IV alteplase safe and effective (COR 2a)

- **Microbleeds 1–10 on prior MRI** — do not delay/screen for CMBs; treat unless >10 known burden

Adjuvant antithrombotics with IVT — all NOT recommended

Intervention	Recommendation	Class
IV argatroban with IVT	Not effective for long-term outcomes (MOST)	COR 3 No Benefit, A
IV eptifibatide with IVT	Not effective (MOST)	COR 3 No Benefit, A
IV abciximab with IVT	Harm — increased sICH (AbESTT-II)	COR 3 Harm, B-R
IV tirofiban with IVT (general)	Uncertain	COR 2b, B-R
IV aspirin within 90 min of alteplase	Harm — increased sICH (ARTIS)	COR 3 Harm, B-R
Sonothrombolysis as adjunct	No benefit	COR 3 No Benefit, A

Post-IVT complications

Symptomatic ICH within 24 h (Table 5)

- Stop alteplase infusion (if still being pushed)
- Emergent CBC, PT/INR, aPTT, fibrinogen, type & cross
- Emergent NCCT head
- **Cryoprecipitate 10 units IV over 10–30 min** (target fibrinogen ≥150 mg/dL)
- **Tranexamic acid 1000 mg IV over 10 min** OR aminocaproic acid 4–5 g over 1 h then 1 g/h × 8 h
- Hematology + neurosurgery consult
- BP, ICP, glucose, temperature control

Orolingual angioedema (Table 6)

- Intubation may not be needed if edema limited to anterior tongue/lips
- Larynx/palate/floor-of-mouth/oropharynx involvement OR progression in 30 min → anesthesia, awake fiberoptic or cricothyroidotomy (avoid nasotracheal)
- Discontinue thrombolytic if still infusing; hold ACE inhibitors
- **Methylprednisolone 125 mg IV**
- **Diphenhydramine 50 mg IV**
- **Ranitidine 50 mg IV** or famotidine 20 mg IV
- If progression: epinephrine SC 0.3 mL (1 mg/mL) or nebulizer
- **Icatibant 3 mL (30 mg) SC** (max 3 doses q6h, bradykinin B2 antagonist) OR C1 esterase inhibitor 20 IU/kg

> **Practical — do NOT delay IVT to wait for coagulation labs**
>
> In patients without known coagulopathy, do not delay IVT waiting for platelet count / coag results. Initiate IVT; stop if abnormal results return. (COR 2a, B-NR)

2. Endovascular Thrombectomy (EVT)

Anterior circulation — algorithm summary

Window	ASPECTS	NIHSS	Prestroke mRS	Class
0–6 h	3–10	≥6	0–1	COR 1, A
0–6 h	0–2 (very large core)	≥6	0–1	COR 2a, B-R (age <80, no mass effect)
0–6 h	≥6	≥6	2 (mild pre-existing)	COR 2a, B-NR
0–6 h	3–10	≥6	3–4	COR 2b, B-NR
6–24 h	6–10	≥6	0–1	COR 1, A
6–24 h (selected)	3–5	≥6	0–1	COR 1, A (age <80, no mass effect)
0–6 h dominant M2	≥6	≥6	0–1	COR 2a, B-NR
Non-dom M2, distal MCA, ACA, PCA	—	—	—	COR 3 No Benefit, A (ESCAPE-MeVO, DISTAL)

Posterior circulation — basilar artery occlusion (NEW)

Population	Recommendation	Class
Basilar occlusion, NIHSS ≥10, PC-ASPECTS ≥6, mRS 0–1, within 24 h	EVT recommended — better outcomes and mortality (ATTENTION, BAOCHE)	COR 1, A
Basilar occlusion, NIHSS 6–9, PC-ASPECTS ≥6, within 24 h	Effectiveness not well established	COR 2b, B-R

EVT in pediatric patients (NEW)

Age	Time window	Imaging requirement	Class
≥6 y	0–6 h, LVO	—	COR 2a, B-NR
≥6 y	6–24 h, LVO	Salvageable tissue	COR 2a, B-NR
28 d – 6 y	Within 24 h, LVO	Salvageable tissue + experienced neurointerventionalist	COR 2b, B-NR
Neonates <28 d	—	—	Insufficient data

EVT technique

- Stent retriever, contact aspiration, or combination — all **COR 1, A** (ASTER, COMPASS, ASTER-2)
- Target reperfusion: **mTICI 2b/2c/3** (COR 1, B-R)
- General anesthesia or procedural sedation — equivalent in 0–6 h (COR 1, B-R); data insufficient for 6–24 h
- **Tirofiban pre-EVT: NOT useful** (RESCUE-BT) — COR 3 No Benefit
- Rescue intracranial balloon angioplasty / stenting after failed EVT: uncertain (COR 2b)
- Intra-arterial alteplase/urokinase/TNK after near-complete EVT for completion: may be reasonable (COR 2b — CHOICE, POST-TNK)
- Emergent extracranial carotid stenting for tandem occlusions: may be reasonable (COR 2b, B-NR — TITAN, PICASSO)

> **Bridging IVT before EVT — do NOT skip**
>
> If a patient is eligible for both, IVT should be given as rapidly as possible. Do not "skip" IVT to facilitate EVT (COR 1, A). Time-from-onset-to-IVT <2 h 20 min drives the bridging benefit. Do not delay EVT to assess clinical response after IVT.

EVT time goals

- Door-to-CT/CTA: ≤25 min
- Door-to-needle (IVT): <45 min (goal >50% <30 min)
- Door-in-door-out (DIDO) for transfers: track and reduce (COR 1)
- EVT-capable hospitals should track door-to-puncture, door-to-reperfusion, mTICI rates (COR 1)

3. Prehospital & EMS Systems

- Public stroke awareness programs at all levels — **COR 1, B-R/B-NR**
- EMS dispatcher use of telephone stroke assessment tool — **COR 2a, B-NR**
- EMS stroke screen by paramedics — **COR 1, A** (CPSS, LAPSS, RACE, LAMS, FAST-PLUS)
- EMS hospital prenotification — **COR 1, B-NR** (shorter DTN, fewer minutes lost)
- **Mobile Stroke Units where available — COR 1** (improved onset-to-treatment, functional outcomes)
- Prehospital remote ischemic conditioning (RIC) — **NOT recommended** (RESIST) — COR 3 No Benefit
- Prehospital transdermal GTN — **HARM** (MR ASAP, RIGHT-2) — COR 3 Harm
- Intensive prehospital BP lowering to 130–140 — **no benefit** — COR 3 No Benefit

EMS destination

Scenario	Recommendation	Class
Closest appropriate stroke-capable hospital (ASRH / PSC / TSC / CSC)	Recommended over non-stroke hospitals	COR 1, B-NR
Suspected LVO (e.g., RACE >4), within local TSC reach	Direct triage to TSC reasonable	COR 2a, B-NR
No local TSC: consider closest IVT-capable + secondary transfer	May be reasonable if doesn't disqualify from IVT	COR 2b, B-NR
Well-coordinated SSOC with proficient local PSC: direct transport to distant TSC (45–60 min)	Does NOT improve outcomes — bypass not beneficial	COR 3 No Benefit, B-R
DIDO protocols for inter-hospital transfer	Establish to reduce DIDO times	COR 1, B-NR

4. Imaging

- NCCT or MRI to exclude ICH before IVT — **COR 1, A**
- Door-to-imaging ≤20–25 min — **COR 1, B-NR**
- Vascular imaging (CTA/MRA) for suspected LVO — **should NOT be delayed for creatinine** — COR 1, B-NR
- Wake-up / unknown onset >4.5 h: DWI/FLAIR mismatch MRI for extended IVT — COR 2a, B-R
- CTP or MR DWI/PWI with automated postprocessing for 6–24 h EVT selection — COR 2a (or 1 if needed)
- Advanced imaging not strictly required for 0–6 h EVT once LVO confirmed (NCCT + CTA may suffice)

ASPECTS scoring (10 points)

- **Anterior MCA (basal ganglia level):** caudate, putamen, internal capsule, insular cortex, anterior MCA cortex (M1, frontal operculum), lateral MCA cortex (M2, lateral to insular ribbon / anterior temporal), posterior MCA cortex (M3, posterior temporal) — 1 point each
- **Anterior MCA (coronal radiata level):** anterior-superior (M4), lateral-superior (M5), posterior-superior (M6) — 1 point each
- **PC-ASPECTS (posterior, 10 points):** thalami (1 each), occipital lobes (1 each), midbrain (2), pons (2), cerebellar hemispheres (1 each)

ECG and troponin: recommended at baseline but should NOT delay IVT/EVT (both COR 1).

5. Blood Pressure Management

Phase / Scenario	Target / Recommendation	Class
Hypotension / hypovolemia	Correct to maintain systemic perfusion	COR 1, C-LD
BP ≥220/120, no IVT/EVT, no other indication	Initiating antihypertensives in first 48–72 h uncertain	COR 2b, C-EO
BP <220/120, no IVT/EVT, no other indication	Antihypertensives in first 48–72 h NOT effective	COR 3 No Benefit, A
Before IVT	**SBP <185 / DBP <110**	COR 1, B-NR
Before EVT (no IVT given)	SBP ≤185 / DBP ≤110 reasonable	COR 2a, B-NR
First 24 h after IVT	**BP <180/105**	COR 1, B-R
After IVT, mild-mod AIS — intensive SBP <140	NOT recommended — no functional benefit	COR 3 No Benefit, B-R
During / 24 h after EVT (general)	BP ≤180/105 reasonable	COR 2a, B-NR
72 h after successful EVT (mTICI 2b/2c/3), no other indication — intensive SBP <140	**HARMFUL — NOT recommended**	COR 3 Harm, A

Why aggressive BP lowering after successful EVT is harmful

Two high-quality RCTs (BP-TARGET, ENCHANTED-2 sub-analyses) showed intensive SBP <140 — and especially <120 — after complete reperfusion led to more neurological deterioration and disability at 90 days. The penumbra is gone, but autoregulation is impaired; aggressive lowering causes secondary ischemia. Maintain SBP 140–180 after good reperfusion.

6. Other Acute Care

Glucose (CHANGE from 2019)

- Hypoglycemia <60 mg/dL: treat to normoglycemia — **COR 1, C-LD**
- Persistent hyperglycemia: **target 140–180 mg/dL** — COR 2a, C-LD
- **Tight glucose control 80–130 mg/dL is NOT recommended** — no benefit, increases severe hypoglycemia (SHINE) — **COR 3 No Benefit, A**

Temperature

- Treat hyperthermia >37.5 °C; target normothermia (nurse-driven protocols reduce mortality) — **COR 1, B-R**
- Identify and treat source of fever (e.g., infection) — **COR 1, C-EO**
- Induced hypothermia or prophylactic fever prevention — **NOT recommended** — COR 3 No Benefit

Oxygenation

- Airway / ventilation support as needed — **COR 1**
- Supplemental O_2 to keep SpO_2 >94% in hypoxic patients — **COR 1**
- Routine supplemental O_2 in non-hypoxic AIS — **NOT recommended** — COR 3 No Benefit
- Hyperbaric O_2 only for cerebral air embolism (COR 2b); not for general AIS
- Normobaric hyperoxia before EVT (NIHSS 10–20, ASPECTS ≥6, anterior LVO) — may be reasonable (COR 2b, OPENS-2)

Head position, volume expansion, neuroprotection — what NOT to do

- Routine 0-degree head positioning × 24 h — **NOT beneficial** (HeadPoST, HOPES-2) — COR 3 No Benefit
- Hemodilution, high-dose albumin, pentoxifylline — **NOT recommended** — COR 3 No Benefit, A
- Counterpulsation / sphenopalatine ganglion stimulation — **NOT recommended** — COR 3 No Benefit
- Pharmacologic / nonpharmacologic neuroprotectants (nerinetide, uric acid, edaravone-dexborneol, ApTOLL) — **NOT recommended** — COR 3 No Benefit, A
- Emergency CEA / stenting for stroke-in-evolution without intracranial clot (within 48 h) — **NOT beneficial** — COR 3 No Benefit

7. Antiplatelet Therapy — Early Secondary Prevention

- Aspirin within 48 h of stroke onset — reduces death and dependency — **COR 1, A** (IST, CAST)
- Postpone aspirin until 24 h after IVT — early aspirin <90 min after alteplase is **HARM** (ARTIS)

DAPT for minor AIS / high-risk TIA — COR 1, A

Trial	Inclusion	Drug & duration	LKN	NNT
CHANCE	NIHSS ≤3 or TIA ABCD² ≥4	Clopi 300 mg load → 75 mg + ASA 75 mg × 21 d, then clopi	24 h	28
POINT	NIHSS ≤3 or TIA ABCD² ≥4	Clopi 600 mg load → 75 mg + ASA 50–325 mg × 90 d	12 h	67
THALES	NIHSS ≤5 or TIA ABCD² ≥6	Ticagrelor 180 mg load → 90 mg BID + ASA 300–325 mg load → 75–100 mg × 30 d	24 h	91
CHANCE-2	NIHSS ≤3 or TIA ABCD² ≥4 + CYP2C19 LOF allele	Ticagrelor 180 mg load → 90 mg BID + ASA × 21 d, then ticagrelor	24 h	63
INSPIRES	NIHSS ≤5 or TIA ABCD² ≥4, presumed atherosclerosis	Clopi 300 mg load → 75 mg + ASA 100–300 mg load → 100 mg × 21 d	72 h	53

> **Practical DAPT algorithm (Figure 4 in guideline)**
>
> Step through these in order:

- If eligible for IVT/EVT → reperfuse first; DAPT decision after
- LKN <24 h AND NIHSS ≤3 or ABCD² ≥4: **DAPT clopidogrel + ASA × 21 d, then SAPT** (COR 1, A — CHANCE/POINT)
- If CYP2C19 LOF allele carrier: switch to **ticagrelor + ASA × 21–30 d** (COR 2b, B-R — CHANCE-2/THALES)
- LKN <24 h AND NIHSS 4–5 with ≥50% intracranial/extracranial stenosis: clopi + ASA × 21 d, then SAPT (COR 2a, B-R)
- LKN 24–72 h AND NIHSS ≤5 or ABCD² ≥4 with presumed atherosclerosis: clopi + ASA × 21 d (COR 2a, B-R — INSPIRES)
- **Continuing DAPT beyond 90 days is NOT beneficial** and increases bleeding

Antiplatelet — what NOT to do

Intervention	Recommendation	Class
Triple antiplatelet (ASA + clopi + dipyridamole)	Harm — TARDIS	COR 3 Harm, B-R
Routine antiplatelet added to anticoagulation in AFib without CAD/recent stent	Harm — increased bleeding	COR 3 Harm, B-NR
IV abciximab with IVT	Harm	COR 3 Harm, B-R
Ticagrelor monotherapy over aspirin (SOCRATES)	No benefit	COR 3 No Benefit, B-

		R
Continuing DAPT >90 d	No benefit, increased bleeding	COR 3 No Benefit

8. Anticoagulation

AFib — early DOAC initiation (NEW)

- **Carefully selected (milder severity) AIS + AFib: early DOAC initiation poststroke is low risk and reasonable** (COR 2a, A — ELAN, OPTIMAS, TIMING)
- ELAN definitions: "early" = within 48 h for minor/moderate stroke, day 6/7 for major; "late" = day 3/4 minor, day 12–14 major
- OPTIMAS: early DOAC (≤4 d) non-inferior to delayed (7–14 d); fewer recurrent events with early

Anticoagulation — what NOT to do

Intervention	Recommendation	Class
IV argatroban with IVT	Not effective for long-term outcomes (MOST)	COR 3 No Benefit, A
Early anticoagulation (<48 h) of undifferentiated AIS	Does NOT reduce neuro worsening or improve outcome	COR 3 No Benefit, A

Argatroban for early neuro deterioration — emerging evidence

The 2022 ARAIS trial of argatroban + IVT was neutral overall. A 2024 single-arm Chinese trial in patients with early neuro deterioration (NIHSS worsening ≥2 within 48 h) suggested benefit, but this was open-label and Han Chinese only. Routine argatroban + IVT remains NOT recommended; use for END is still investigational.

9. In-Hospital Management — General Supportive Care

Stroke unit care

Treatment within an organized inpatient stroke unit by a specialty-trained interdisciplinary team is recommended for all AIS patients (COR 1, B-R). Benefits independent of age, sex, severity, stroke type, or follow-up duration; most evident in geographically colocalized units.

Dysphagia (PES is NEW)

- Bedside swallow screen before any PO intake — **COR 1, C-EO**
- Dysphagia evaluation by SLP or trained professional — **COR 2a, C-LD**
- Endoscopic swallow exam (FEES) for patients failing/unable to participate — COR 2a, B-NR
- Oral hygiene protocol may reduce pneumonia — COR 2b, B-NR
- **Pharyngeal Electrical Stimulation (PES) for severe stroke with dysphagia — COR 2a, B-R** (NEW) — 3 consecutive once-daily treatments via NG tube
- **PES in severe stroke requiring tracheostomy / mechanical ventilation — COR 2a, B-R** (NEW) — expedites decannulation

Nutrition

- Enteral diet started within 7 d — **COR 1, B-R**
- Nutritional screening within 48 h — **COR 1, B-NR** (MNA, CONUT, GNRI, MUST)
- NG tube initially × 7 d; PEG if persistent dysphagia >2–3 weeks — COR 2a, B-NR
- Early PEG within 7 d is **NOT beneficial** vs NG (FOOD-3)

DVT prophylaxis

Intervention	Recommendation	Class
Intermittent pneumatic compression (IPC) in addition to routine care	Recommended over routine care alone (CLOTS-3)	COR 1, B-R
Prophylactic-dose SC heparin (UFH or LMWH)	Reasonable to reduce VTE risk	COR 2a, B-R
LMWH vs UFH preference	Slight DVT advantage to LMWH, possibly more bleeding	COR 2b, A
Elastic compression stockings	**HARM** — skin breakdown, ulceration, necrosis (CLOTS-1/2)	COR 3 Harm, B-R

Depression

- Routine post-stroke depression screening — **COR 1, B-NR** (PHQ-9 or HDS)
- Treatment with antidepressants and/or non-pharm (psychotherapy, NIBS, acupuncture) — **COR 1, B-R**
- **Prophylactic SSRIs for motor recovery in non-depressed patients — NOT effective** (FOCUS, AFFINITY, EFFECTS) — COR 3 No Benefit, A

Other in-hospital

- Palliative care referral for select severe stroke patients — COR 2a, C-EO
- Routine prophylactic antibiotics — **NOT beneficial** (PASS, STROKE-INF, PRECIOUS) — COR 3 No Benefit, A
- Routine indwelling bladder catheters — **HARM** (CAUTI risk) — COR 3 Harm, C-LD

Rehabilitation

- In-hospital interdisciplinary rehab assessment at appropriate level — **COR 1, A**
- Prophylactic SSRIs for motor recovery — NOT effective — COR 3 No Benefit
- **Very early high-dose mobilization <24 h: HARM** (AVERT) — COR 3 Harm, B-R

10. Acute Complications

Brain swelling — general

- Early shared decision-making with family for large infarcts at risk of malignant edema — **COR 1, C-EO**
- Close neurological monitoring in the first days — **COR 1, C-EO**
- Early transfer to facility with neurosurgery and critical-care expertise — **COR 1, C-LD**

Brain swelling — medical management

Intervention	Recommendation	Class
Osmotic therapy (mannitol or hypertonic saline) as bridge to surgery	Reasonable to improve outcome and mortality	COR 2a, C-LD
IV glibenclamide for large hemispheric infarct 18–70 y	**NOT recommended** — CHARM trial neutral	COR 3 No Benefit, B-R
Hypothermia, barbiturates, corticosteroids	HARM — lack of efficacy + adverse effects	COR 3 Harm, C-LD

Decompressive surgery — supratentorial

Population	Recommendation	Class
≤60 y, unilateral MCA infarct, neuro deterioration within 48 h despite medical therapy	Decompressive hemicraniectomy with dural expansion — beneficial (DECIMAL, DESTINY, HAMLET)	COR 1, A
>60 y, unilateral MCA infarct, deteriorating within 48 h	May be considered to reduce mortality (worse functional outcomes — DESTINY-II)	COR 2b, B-R
Decreased LOC attributed to swelling	Reasonable trigger for decompressive selection	COR 2a, B-NR
Post-IVT with malignant edema	Early decompression within 48 h may still be considered without added safety concerns	COR 2b, B-NR

Cerebellar infarction — surgical

- Cerebellar infarction with **obstructive hydrocephalus → ventriculostomy recommended** (COR 1, C-LD)
- Cerebellar infarction with **brainstem compression OR volume ≥35 mL → decompressive suboccipital craniectomy with dural expansion** (COR 1, B-NR)

Seizures

- Unprovoked post-stroke seizure: AED therapy based on patient-specific factors — **COR 1, C-LD**
- **Prophylactic AEDs in AIS: NOT recommended** — COR 3 No Benefit, C-LD

Quick-Reference Summary Tables

IVT — comparison of windows

	Onset <4.5 h	Wake-up / 4.5–9 h with mismatch	4.5–24 h LVO not eligible for EVT
Class	COR 1, A	COR 2a, B-R	COR 2b, B-R
Imaging needed	NCCT (CTA if LVO suspected)	DWI/FLAIR mismatch OR CTP/PWI (TIMELESS / EXTEND profile)	Penumbra on CTP / MR DWI-PWI
Agent	TNK 0.25 mg/kg max 25 mg OR alteplase 0.9 mg/kg max 90 mg	Same	Same
Non-disabling deficits	NOT recommended — use DAPT	—	—

EVT — quick reference (anterior LVO)

Window	ASPECTS 6–10	ASPECTS 3–5	ASPECTS 0–2
0–6 h, mRS 0–1	COR 1	COR 1	COR 2a (age <80)
6–24 h, mRS 0–1	COR 1	COR 1 (age <80, no mass effect)	Insufficient data
Posterior basilar 0–24 h	PC-ASPECTS ≥6, NIHSS ≥10 → COR 1	NIHSS 6–9 → COR 2b	—

BP targets at a glance

Phase	Target
Before IVT	<185/110
Before EVT (no IVT)	≤185/110
First 24 h after IVT	<180/105 (NOT <140)
During / 24 h after EVT	≤180/105 (NOT <140)
72 h after successful EVT (mTICI 2b/2c/3)	**140–180 — intensive <140 is HARMFUL**
Not eligible for reperfusion, BP <220/120	No active lowering for 48–72 h unless other indication

High-Yield "Don't Do This" — 2026 COR 3 List

- IVT in non-disabling deficits within 4.5 h (use DAPT instead)
- Tenecteplase at 0.4 mg/kg
- IV abciximab with IVT (Harm)
- Early IV aspirin within 90 min of alteplase (Harm)
- Tirofiban pre-EVT
- EVT for non-dominant M2, distal MCA, ACA, PCA (No Benefit)
- Tight glucose control 80–130 mg/dL
- Intensive BP <140 after IVT in mild-mod AIS
- **Intensive BP <140 for 72 h after successful EVT (HARM)**
- Routine supplemental O_2 in non-hypoxic AIS
- Routine HBO in AIS (only for air embolism)
- 0-degree head positioning routinely × 24 h
- Hemodilution, high-dose albumin, pentoxifylline
- Pharmacologic / nonpharmacologic neuroprotectants
- Emergency CEA/stenting for stroke-in-evolution without intracranial clot
- Triple antiplatelet therapy (Harm)
- Anticoagulant + antiplatelet for AFib without CAD/recent stent (Harm)
- Ticagrelor monotherapy over aspirin
- DAPT continued beyond 90 days
- Argatroban with IVT
- Early anticoagulation (<48 h) of undifferentiated AIS
- Elastic compression stockings (Harm)
- Routine prophylactic antibiotics
- Routine indwelling bladder catheters (Harm)
- SSRIs for motor recovery in non-depressed
- Very early high-dose mobilization <24 h (Harm)
- IV glibenclamide for malignant edema
- Hypothermia / barbiturates / corticosteroids for AIS swelling (Harm)
- Prophylactic AEDs in AIS
- Prehospital transdermal GTN (Harm)
- Prehospital remote ischemic conditioning (RIC)
- Intensive prehospital BP lowering to 130–140
- Direct transport to distant TSC bypassing proficient local PSC in well-coordinated SSOC
- Sonothrombolysis as adjunct to IVT
- IV streptokinase (Harm)

Key Trials by Topic

Topic	Trials
Early IVT (0–4.5 h)	NINDS, ECASS-III

Wake-up / unknown onset IVT	WAKE-UP, THAWS
Extended-window IVT with perfusion	EPITHET, ECASS-4, EXTEND, TIMELESS, TRACE-3
Tenecteplase non-inferiority	AcT, TRACE-2, ATTEST-2, NOR-TEST
Early-window EVT	HERMES (MR CLEAN, ESCAPE, REVASCAT, SWIFT-PRIME, EXTEND-IA)
6–24 h EVT with mismatch	DAWN, DEFUSE-3
Large-core EVT (ASPECTS 3–5)	SELECT-2, RESCUE-Japan LIMIT, ANGEL-ASPECT, TENSION, TESLA
Very large core (ASPECTS 0–2)	LASTE
Basilar artery EVT	ATTENTION, BAOCHE
Medium/distal vessel EVT (neutral)	ESCAPE-MeVO, DISTAL
DAPT for minor stroke / high-risk TIA	CHANCE, POINT, THALES, CHANCE-2, INSPIRES
Early DOAC for AFib stroke	ELAN, OPTIMAS, TIMING
Tight glucose (negative)	SHINE
Intensive BP post-EVT (harmful)	BP-TARGET, ENCHANTED-2
Head position (neutral)	HeadPoST, HOPES-2
Argatroban / eptifibatide adjuncts (neutral)	MOST, ARAIS
Prehospital RIC (neutral)	RESIST
Prehospital GTN (harmful)	MR ASAP, RIGHT-2
Glibenclamide for malignant edema (neutral)	CHARM
DVT prophylaxis	CLOTS-1, CLOTS-2 (stockings harm), CLOTS-3 (IPC benefit)
Decompressive hemicraniectomy	DECIMAL, DESTINY, HAMLET, DESTINY-II
Very early mobilization (harmful)	AVERT
SSRIs for motor recovery (neutral)	FOCUS, AFFINITY, EFFECTS

End of document. Verify against: Prabhakaran S et al. Stroke 2026;57:eXXX. DOI 10.1161/STR.0000000000000513. Draft prepared for Dr. Ahmed Koriesh — review for clinical accuracy before circulation.