



Montana Stroke Initiative

Evaluation of Patients with Transient Ischemic Attack (TIA)

Any of the following should be considered focal neurologic stroke symptoms which, if resolved (in 60 minutes or less) with no residual deficits or active fluctuation, should be considered transient ischemic attack. The neurologic examination and NIHSS are stable with no appreciable remaining deficits compared to the patient's baseline.

- Balance- Sudden trouble walking, dizziness, loss of balance or coordination
- Eyes- Sudden double vision or trouble seeing out of one or both eyes.
- Face- Sudden drooping or numbness on one side of the face.
- Arm- Sudden numbness or weakness of the arm, especially on one side of the body.
- Speech- Sudden confusion, trouble speaking or understanding.

Transient Ischemic Attack severity may be assessed using the ABCD² score that quantifies future stroke risk based on the patient's age, blood pressure, clinical TIA features, duration, and presence of diabetes. Consult with a neurologist before deciding to discharge or transfer a TIA patient. Accessibility to and timing of diagnostic testing and the ABCD² score are used to determine a post TIA treatment plan with the neurologist.

The ABCD² score is used in conjunction with clinical judgment. If a patient presents with clinical features not listed in the ABCD² score table, it is still recommended to consult with a neurologist.

The ABCD² Score is a risk assessment tool designed to improve the prediction of short-term stroke risk after a transient ischemic attack (TIA). The score is optimized to predict the risk of stroke within 2 days after a TIA, but also predicts stroke risk within 90 days. The ABCD² score is calculated by summing up the points for five independent risk factors. Patients without the risk factors in each category are scored a 0 for that category. Higher ABCD² scores are associated with greater risk. In general, patients with a score of 0-1 should be evaluated by a neurologist within 7 days.

Patients with any of the following should likely be transferred and/or admitted for further evaluation:

- ABCD² scores of 0-1 if all the necessary work up cannot be completed locally within the next 7 days.
- ABCD² scores of 2 or more
- Abnormal vascular imaging (intracranial, extracranial)
- There is evidence of Ischemic lesion on CT or MRI
- Fluctuating TIA symptoms or recurrent TIA within the previous 30 days
- Medical instability: new onset Atrial fib, hypertensive emergency, cardiac instability and others.
- This treatment plan is made in conjunction with the consulting neurologist.



If the neurologist advises that the patient may be discharged and followed as an outpatient, assure that the following are in place

- Follow up appointments for diagnostic testing related to stroke risk
- Patient is begun on antiplatelet or other therapies at the recommendation of the neurologist
- Patient receives education about their stroke risk factors, signs of stroke, and the importance of using 9-1-1

ABCD² Score

Risk Factor	Points	Score
Age ≥60 years	1	
Blood Pressure Initial Systolic BP ≥140 mm Hg OR Diastolic BP ≥90 mm Hg	1	
Clinical features of TIA (<i>choose one</i>) * Unilateral weakness with or without speech impairment OR Speech impairment without unilateral weakness	2 1	
Duration TIA duration >60 minutes TIA duration 10-59 minutes	2 1	
Diabetes	1	
Total ABCD² Score	0-7	

References:

Kleindorfer, D. O., Towfighi, A., Chaturvedi, S., Cockcroft, K. M., Gutierrez, J., Lombardi-Hill, D., ... & Williams, L. S. (2021). 2021 guideline for the prevention of stroke in patients with stroke and transient ischemic attack: a guideline from the American Heart Association/American Stroke Association. *Stroke*, 52(7), e364-e467

Wardlaw, J. M., Brazzelli, M., Chappell, F. M., Miranda, H., Shuler, K., Sandercock, P. A., & Dennis, M. S. (2015). ABCD2 score and secondary stroke prevention: meta-analysis and effect per 1,000 patients triaged. *Neurology*, 85(4), 373-380.