CKS safe practical clinical answers - *fast*

Stroke and transient ischaemic attack
How should I assess the ABCD2 score?

- Use the $ABCD^2$ scoring system to help assess the risk of stroke early after a transient ischaemic attack:

  - **A** — age: 60 years of age or older, 1 point.

  - **B** — blood pressure at presentation: 140/90 mmHg or greater, 1 point.

  - **C** — clinical features: unilateral weakness, 2 points; speech disturbance without weakness, 1 point.

  - **D** — duration of symptoms: 60 minutes or longer, 2 points; 10–59 minutes, 1 point.

  - **D** — presence of diabetes: 1 point.

- Points from the individual items are added to give the $ABCD^2$ score.

- People with a score of 4 or more are regarded as being at high risk of an early stroke.

Clarification / Additional information

- The $ABCD^2$ scoring system excludes certain populations who may be at particularly high risk, such as:

  - People who have had two or more transient ischaemic attacks (TIAs) within 1 week — they are at higher risk for early stroke.

  - People on anticoagulation treatment — brain imaging is required to exclude intracranial bleeding.

- They also may not be relevant to people who present days after a TIA.

Basis for recommendation

These recommendations are in line with guidelines issued by the National Institute for Health and Clinical Excellence (NICE) and the Royal College of Physicians Intercollegiate Stroke Working Party (RCP ICSWP) [Intercollegiate Stroke Working Party, 2008; National Collaborating Centre for Chronic Conditions, 2008].

Use of the $ABCD^2$ scoring system to assess the risk of stroke early after a transient ischaemic attack (TIA)

- The consensus of the NICE Guideline Development Group was that high-risk people need to be immediately identified so that they can be urgently assessed and secondary prevention initiated.

- A systematic review of the risk of stroke within 7 days of TIA identified 18 independent cohorts (n = 10,126) [Giles and Rothwell, 2007]:

  - The pooled risk of stroke within 2 days was 3.1% (95% CI 2.0 to 4.1) and within 7 days 5.2% (95% CI 3.9 to 6.5). There was considerable heterogeneity.

- Four studies rigorously evaluated the accuracy of the ABCD or ABCD^2 scoring systems in predicting the risk of early stroke risk after TIA [Rothwell et al, 2005; Tsivgoulis et al, 2006; Bray et al, 2007; Johnston et al, 2007]:

  - The four studies had different populations and reported different outcomes but provide consistent evidence that such scoring systems as the ABCD^2 are accurate at identifying people who are at high risk of early subsequent stroke.

- The health economic modelling conducted by NICE found that the cost effectiveness of immediate assessment declines with ABCD^2 score [National Collaborating Centre for Chronic Conditions, 2008].

- On the basis of this evidence, the NICE Guideline Development Group defined a risk of greater than 4% over 7 days as high risk requiring urgent referral to be seen within 24 hours. This risk is equivalent to an ABCD^2 score of 4 or greater.

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