Sleep SMART
ABCD$^2$ training

Slides modified from POINT trial with thanks to Dr. Clay Johnston
Application of $ABCD^2$ in Sleep SMART

• $ABCD^2$ is applied only to TIA patients

• TIA definition in Sleep SMART:
  • Focal neurological deficit/symptoms that lasts <24 hours due to focal cerebral ischemia
  • No associated acute infarction on the brain imaging that was performed
ABCD² Score

Score points for each of the following:

• Age ≥ 60 (1)
• Blood pressure ≥ 140/90 on initial evaluation (1)
• Clinical:
  • Focal weakness (2)
  • Speech impairment without weakness (1)
• Duration
  • ≥ 60 min (2)
  • 10-59 min (1)
• Diabetes (1)

Final Score 0-7

ABCD² Score Definitions of the Components

• ABCD² Components

• Age
  • Age 60 years or greater is self-explanatory
  • Age 59 or less is scored 0 points, and
  • Age ≥ 60, score 1 point
ABCD$^2$ Score Definitions of the Components

ABCD$^2$ Components

Blood Pressure

• Blood pressure in Sleep SMART will be a systolic pressure $\geq 140$ mm Hg or a diastolic pressure $\geq 90$ mm Hg, on the initial evaluation

  • Systolic BP $<140$ and diastolic BP $<90$, score 0 points
  • Systolic BP $>140$ or diastolic BP $>90$, score 1 point
**ABCD² Score Definitions of the Components**

**ABCD² Components**

Clinical

- Focal weakness is not the simple sensation of weakness, but rather a convincing description of demonstrable weakness by the patient or an observer, or weakness present on examination. Weakness all over, or in both arms or legs is not focal weakness

  - If unconvincing history or exam for focal weakness, score 0 points
  - If convincing history or exam for focal weakness, score 2 points
ABCD\(^2\) Score Definitions of the Components

**ABCD\(^2\) Components**

**Clinical (2)**

- Speech impairment may be either dysarthria or dysphasia, either described by the patient or accompanying observer, or present on examination
  - If no speech impairment, score 0 points
  - If a speech impairment is present without focal weakness, score 1 point
ABCD\textsuperscript{2} Score Definitions of the Components

ABCD\textsuperscript{2} Components

Duration

• If the duration of the focal TIA symptoms or signs is:
  • <10 minutes, score 0 points
  • 10-59 minutes, score 1 point
  • >60 minutes, score 2 points
ABCD$^2$ Score Definitions of the Components

ABCD$^2$ Components

Diabetes

- Diabetes in POINT is defined as diabetes diagnosed by a physician. It may be diet-controlled or require either oral medication or insulin.

  - If diabetes is absent, score 0 points
  - If diabetes is present, score 1 point
Sample cases
Case 1

• A 64 yo woman with diabetes had the sudden onset of left hemibody numbness that lasted 15 minutes, with no other symptoms. She takes lisinopril, glyburide and atorvastatin. Her BP on arrival was 135/85 mm Hg and her neurological examination was normal.

• What ABCD² score would you assign to her TIA?

• Would you offer her enrollment in Sleep SMART if no exclusions were identified?
A 64 yo diabetic woman had the sudden onset of left hemibody numbness that lasted 15 minutes, with no other symptoms. She takes lisinopril, glyburide and atorvastatin. Her BP on arrival was 135/85 mm Hg and her neurological examination was normal.

• What ABCD² score would you assign to her TIA?
  • Age ≥ 60 years: 1 point
  • Diabetes: 1 point
  • Duration ≥ 10 min: 1 point

• Total Score: 3 points

• Would you offer her enrollment in Sleep SMART if no exclusions are met?
  • No. Score ≥ 4 is required for entry
Case 2

• A 75 yo man with CAD had the sudden onset of left-sided weakness and slurred speech that lasted for 15 minutes, with no other symptoms. He takes atenolol, HCTZ, glyburide and aspirin. His BP on arrival was 145/85 mm Hg and his neurological examination was normal.

• What ABCD² score would you assign to her TIA?

• Would you offer her enrollment in Sleep SMART if no exclusions were identified?
Case 2, answer

A 75 yo man with CAD had the sudden onset of left-sided weakness and slurred speech that lasted for 15 minutes, with no other symptoms. He takes atenolol, HCTZ, glyburide and aspirin. His BP on arrival was 145/85 mm Hg and his neurological examination was normal.

• What ABCD² score would you assign to his TIA?
  • Age ≥ 60 years: 1 point
  • BP ≥ 140 mm Hg: 1 point
  • Focal weakness: 2 points
  • Diabetes: 1 point
  • Duration ≥ 10 min: 1 point

• Total Score: 6 points

• Would you offer him enrollment in Sleep SMART if no exclusions are met?
  • Yes. Score is ≥ 4