Suspected CVA/ TIA

Scene Survey
- PPE
- Scene Safety
- Mechanism of injury or illness
- Number of patients
- Need for additional resources
- Consider C-Spine precautions
- General impression

Delegate Vitals & ECG

LOC

Airway
- Patency
- Protection

Breathing
- Rate
- Depth (TV)
- Work of breathing
- Supplementary O2 as needed

Circulation
- Pulse rate
- Pulse characteristic

Incoherent Medical Assessment
- Rapid Physical Assessment
- Rapid Evaluation of C/C
- Rapid Past Medical History
- Interpret Vital Signs

Coherent Medical Assessment
- Targeted Evaluation of C/C
- Targeted Past Medical History
- Targeted Physical Assessment
- Interpret Vital Signs

Key Neurological Past Medical History (MacLeod, 2024c)
- Neurological disorders (CVA/ TIA/ Epilepsy/ Migraines/ Dementia/ Medications)
- Previous changes (basic sensations, motor function, coordination, cognitive function)
- Neurological risk factors (HTN, DM, Smoker, Cardiovascular disease, A-fib, LVH, Sedentary lifestyle)

Stroke Assessment

FAST-VAN (BC EHS, n.d.)
- Facial assymetry
- Arm drift/ pronation
- Slurred speech
- Visual gaze deficits
- Aphasia
- Neglect

Positive

Negative
- Complete detailed neurological assessment
- If defecit at any point consider positive and initiate transport

New findings?
- Timeline within local thrombolytic protocols?

Cranial nerve assessment
- How many fingers am I holding up?
- Swingling light (assess each pupils x 2)
- Watch my finger (6 cardinal gaze)
- Whisper a number in each ear while rubbing fingers in the other
- Can you smell this?
- Close your eyes
- Smile
- Stick out your tongue
- Ask about swallowing difficulty
- Speech assessment (repeat: can't teach an old dog..)
- Shrug your shoulders

Quick physical assessment
- Pupils
- Conjunctival pallor
- Mucous membranes
- JVP
- Palpate carotids (thrills?)
- Auscultate carotids (bruit?)
- Lung sounds
- Heart sounds
- Abdomen
- Incontinence/ Bowel habits/ bleeding?
- Unilateral peripheral redness or swelling

Sensory Exam
- Cotton swab with eyes open (bilateral cheek, back of hand, lateral foot)
- Sharp object with eyes open (bilateral cheek, back of hand, lateral foot)
- Vibration with eyes open (bilateral index finger and great toe)
- Tactile extinction with eyes closed (face, forearm, leg)

Evaluate vitals
- Rule out congruent MI
- Hypoglycemia
- Febrile
- Maintain SPO2: 94-99%

Motor function
- Arms held up in the air for 5 seconds
- Grip strength
- Elbow flexion/ extension
- Hip flexion/ extension
- Knee flexion/ extension
- Dorsi/plantar flextion
- Unilateral leg raise
- Babinski reflex
- Wrist mobility

Differentials
- CVA
- Hypoglecemia
- Seizure
- Migraine
- Infection
- Bell's Palsy

Relfexes
- Achilles
- Patellar
- Brachioradial
- Biceps Brachi
- Triceps

Working diagnosis
- CVA

Rapid Coordination
- Rapid motor (index and thumb tapping)
- Pint point (finger to nose/ heel down shin)
- Stance (feet together, eyes closed, give small push)
- Gait (slow, faster)
- Walk heel to toe

Initiate transport & notify stroke center
- Try to assess gait at this point if capable, do not delay transport

Cognition
- Orientation (Person, age, time, place)
- Memory (Prime Minister?, what's on the news?)
- Math (20x30?)
- Command (blink eyes + squeeze fist)
- Abstract (3 fruits?, 3 peices of furniture?, proverb meaning)
- Naming (NIH image and description)
- Speech (Ma Ma, Fifty fifty, Tip Top, Thanks, Huckleberry, Baseball player)
- Judgement (What is this, what is it used for? e.g. pen)

Establish 2 x IV

Calculate NIHSS

Treatment plan
- Elevate head to 10-20 degrees
- Maintain SP02 94-99%
- Hypoglycemia: D50W 12.5g SIVP
- Consider analgesics & antiemetics as needed

Continued Tx and observation

Start reperfusion checklist

Maxeran
- Adult: 10mg IM OR in 50cc over 10 min
- Contra: Hypersensitivity, Bowel obstruction, Epilepsy, Extrapyrimidal reactions, MOI use within 14 days

Fentanyl
- Adult: 1mcg/kg max SIVP 100mcg **OLMC**
- Contra: Hypersensitivity, SBP<100, MOI use within 14 days

Acetaminophen
- Adult: 975mg PO
- Contra: Hypersensivitiy, Acute liver disease/ hepatic impairment, Undergoing chemotherapy

References
1) AHS protocols. (2024, August 8). https://www.ahsems.com/public/protocols/templates/desktop/#home
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3) ISLAND EMS . (n.d.). *Stroke Reperfusion Checklist*.
4) MacLeod, M. H. (2024c). Neurological Targeted History and Physical ver. 7.