Stroke Post Test Question Bank August 2011

Obj.1 Describe the impact of disrupted cerebral blood flow and how the brain becomes injured in stroke. (ISM, p. 3-4)

1. Which of these occurs in the brain tissues usually fed by the vessel with disrupted blood flow due to a stroke?
   A More efficient use of oxygen
   B. A switch to anaerobic metabolism
   C. They double their metabolic demand
   D. Use fat instead of glucose for metabolism

2. Local anaerobic metabolism in brain cells affected by a stroke results in
   A. nausea and vomiting.
   B. cell shrinkage and loss of brain volume.
   C. cell membrane dysfunction and edema.
   D. increased formation of energy compounds

3. Which is true regarding the ischemic penumbra in a stroke?
   A. The cell damage is irreversible
   B. Tissues may be viable for several hours
   C. Perfusion of the penumbra is dependent on the Circle of Willis
   D. Extent of the penumbra is determined by the size of the core ischemic zone

Obj. 2 Compare recently extracted NWC EMSS stroke statistics to the data obtained in 2009 and against national standards and current SOPs to identify learning needs and practice opportunities in the field and at the hospitals.(CE packet, p. 2)

4. Which element of stroke assessment or care has shown a tripled increase in compliance since 2009 and can highly impact timeliness of care at the hospital?
   A. Arm drift documented
   B. Time last seen normal
   C. Scene time of 10 min. or less
   D. Other neuro deficits documented

5. Which of these critical elements in a pt w/ possible stroke continues to show less than 62% compliance and offers an ongoing opportunity for improvement?
   A. GCS score documentation
   B. Time last seen normal
   C. Obtaining glucose levels
   D. Pulse oximetry readings

6. Which of these provides the greatest opportunity for improvement with respect to stroke management/documentation?
   A. Glucose check
   B. Appropriate use of oxygen
   C. Timing of vascular access
   D. Other neuro deficit documentation

Obj. 3 Consider the presence and relevance of multiple risk factors when interpreting pt assessment data to reach a prehospital impression of stroke.(ISM, p. 7-8)

7. Which of these has the highest risk for stroke?
   A. 70 y/o w/ cholesterol level of 148
   B. Obese adult w/ sedentary lifestyle
   C. Marathon runner w/ HTN controlled by meds
   D. Hx of type 2 diabetes and good glucose control

8. Which *past medical hx* places a patient at high risk of stroke?
   A. Pancreatitis
   B. Previous TIA
   C. Kidney stones
   D. History of cluster headaches

9. Which adult has the highest risk for stroke?
   A. Takes daily allergy meds
   B. Has anemia & vitamin D deficiency
   C. Has a history of chronic atrial fibrillation
   D. Triathelete, consumes 1 glass of red wine 3 times a week

Obj. 4 Identify the various elements of history (SAMPLE) that should be obtained and explain why they may predispose a patient to a stroke or impact their prognosis (blood thinners).(ISM, p. 6, Stroke SOP p. 32)

10. Which of these adults has the highest risk for stroke based on their medication history?
    A. Recreational marijuana user
    B. Takes daily ibuprofen for arthritis
    C. Takes Synthroid for a thyroid problem
    D. Female on oral contraceptives who smokes

11. Taking which of these places a patient at increased risk for stroke?
    A. Lipitor (simvastatin)
    B. Coumadin (warfarin)
    C. Cozaar (angiotensin II blocker)
    D. High dose vitamin/mineral supplements

12. Why does the use of amphetamines predispose a pt to experiencing a stroke?
    A. Increases risk of plaque rupture
    B. Activates platelets promoting thrombosis
    C. Increases BP & inhibits neural protective factors
    D. Predisposes pt to massive cerebral hemorrhage

Obj. 5 Explain how to accurately determine the reportable time of symptom onset.(Stroke SOP p. 32)		
13. An elderly adult was found by skilled nursing home staff to have facial droop and aphasia after waking from a nap at 3 pm. What information is needed to determine the "time of onset"? A. Time the pt ate lunch B. How long was the nap C. Time pt was last seen normal D. Time patient was found by staff	14. An adult woke at 6 am unable to move their left side and difficulty speaking clearly. Their spouse reports that they went to bed at 10 pm and the patient was fine then. How should the time of symptom onset be reported? A. 6 am B. 10 pm C. Unknown D. Middle of the night	15. An adult mentions that they lost the ability to see anything in their right field of vision yesterday at about 9 pm but thought they were tired so went to bed. EMS is called at 7 am, today because the patient woke with right arm weakness. How should the time of symptom onset be reported? A. 7 am B. 9 pm C. Unknown D. Middle of the night
Obj. 6 Identify how to document the time of symptoms onset using Field Bridge software. (Field Bridge template)		
16. Where should time of symptom onset be documented in the Field Bridge report? A. GCS B. Vital signs C. Pt Condition D. Assessment exam		
Obj. 7 Describe the appropriate execution of the Cincinnati Prehospital Stroke Scale (CSS) assessment. (Stroke SOP p. 32; ISM p. 10)		
19. How should the motor component of the Cincinnati stroke screen be assessed? A. Lift both arms palm up to 45°-90° and hold for 5-10 sec B. Have pt squeeze the examiner's fingers as tightly as possible C. Have patient lift both arms to shoulder level against resistance D. Ask pt to shrug their shoulders, bend and extend both elbows and wrists	20. How should a patient with a possible stroke be assessed for facial palsy or asymmetry? A. Ask them to smile and close their eyes tightly B. Ask them to open their eyes as fully as possible C. Tap their cheek and observe for facial twitching or spasm D. Have them bite down tightly and assess strength of jaw muscles	21. What should a patient be asked to say to assess speech when completing the Cincinnati stroke screen? A. Count backwards by 7s B. Repeat a simple sentence C. Their name and date of birth D. "A" and see if if sounds like "E"
Obj. 8 Interpret the findings of the Cincinnati Stroke Scale assessment to differentiate normal vs. abnormal results that may suggest a stroke. (Stroke SOP p. 32, ISM p. 10-11)		
22. An adult has clear & fluid speech, symmetrical smile, no arm drift, and a visual field loss on the right. The CSS should be documented as A. normal. B. abnormal.	23. An adult's eyes are open but they do not respond to commands. Facial muscles are asymmetric; there is no speech, and the pt only moves the right side in response to a pain stimulus. The CSS should be reported as A. normal. B. abnormal.	24. An adult has no arm drift, moves each side of the face equally well, & dysarthria with slurred speech. The CSS should be reported as A. normal. B. abnormal.

25. Which of these is the accurate way to report the Cincinnati stroke scale (CSS) arm drift exam to OLMC if a pt is paralyzed on the left but function is normal on the right? A. CSS is abnormal / positive B. Unable to assess CSS; Lt arm paralyzed C. No drift Rt arm; no movement Lt arm D. Arm drift exam unknown; pt unable to cooperate	26. Which of these is an abnormal finding on the Cincinnati stroke screen? A. Oval pupils with hippus B. Trouble with word retrieval C. Tingling & pain in both feet D. Numbness on half of the face	27. Which of these is an abnormal finding on the Cincinnati stroke screen suggesting a stroke? A. Diplopia B. Blurred vision in one eye C. One eye does not close as tightly as the other D. Pt cannot wrinkle the forehead on the affected side
Obj. 10 Distinguish acute from chronic findings in patients w/ deficits from prior stroke (Stroke SOP p. 32, ISM p. 10-11)		
28. An adult w/ hx of Rt arm paralysis following a previous stroke has clear & appropriate speech, a symmetrical smile, and cannot lift the Rt arm. The CSS should be reported as A. normal. B. abnormal. C. inconclusive. D. not indicated.	29. An adult w/ hx of stroke but unknown if prior deficits, presents with clear and appropriate speech, symmetrical smile, and slight arm drift on the left. The CSS should be reported as A. normal. B. abnormal. C. inconclusive. D. not indicated.	30. An adult w/ hx of stroke-related vision loss has clear & appropriate speech, symmetrical smile, and no arm drift. The CSS should be reported as A. normal. B. abnormal. C. inconclusive. D. not indicated.
Obj. 11 Explain the appropriate way to document CSS findings using Field Bridge software (Image Trend Field Bridge template)		
31. Documentation of CSS value is entered via A. Activities, Add Vitals B. Activities, Add Procedure C. *Powertool* toolbar, GCS button D. *Powertool* toolbar, PQRST button	32. ImageTrend provides which of these for documentation of the 3 assessments done for CSS? A. Narrative only B. Stroke *Powertool* C. Cumulative CSS value only D. Separate fields for face, arm, speech	33. What are the cumulative CSS finding dropdown options in Field Bridge? A. Normal, abnormal, unable B. Positive, negative, unable C. Positive, negative, in/non-conclusive D. Normal, abnormal, in/non-conclusive
Obj. 12 Identify additional S&S that suggest a stroke other than those included in the CSS to formulate an accurate prehospital impression of stroke. (SOP, p. 32; ISM 11)		
34. Which of these findings suggests a stroke? A. Bilateral hearing loss B. Loss of the sense of smell C. Facial cyanosis and cloudy corneas D. Difficulty moving the eyes across midline to the left	35. If a pt presents with dizziness, loss of balance, & hoarse voice, which assessment of cranial nerves IX and X is indicated to check for an atypical presentation of stroke? A. Inspect for uvula deviation B. Ask patient to blink rapidly three times C. Ask pt to turn their head rapidly to the side D. Assess their ability to remember 5 unrelated words	36. Which of these findings suggest a stroke? A. The palate elevates when a pt says, “ah” B. Tongue deviates to one side when extended C. Pupils constrict when looking at a near object D. The face contracts spasmodically when the facial nerve is tapped anterior to the ear

Obj. 13 Consider and/or appropriately treat alternative causes of S&S that are seen in patients experiencing a stroke (differential diagnosis) (Stroke SOP, p. 32; ISM 12)

37. An adult had a sudden syncopal episode after c/o lightheadedness. There was no history of trauma or headache prior to losing consciousness. The pt is taking propranolol, lisinopril and hydrochlorothiazide. VS: BP 90/68, P 48; R 16; SpO_2 97%; glucose 110. Besides stroke, which differential diagnosis is most likely?
    A. Meningitis
    B. Epidural hematoma
    C. Psychiatric syndromes
    D. Cardiac dysfunction/dysrhythmia

38. An unconscious elderly adult presents with evidence of hemi-paralysis. The patient has spontaneous unlabored ventilations, a rapid radial pulse, cool, moist skin; and a GCS of 11. Which of these is indicated first?
    A. Drug assisted intubation
    B. Dextrose 50% 50 mL IVP
    C. Midazolam 2 mg increments IVP
    D. Obtain a capillary glucose reading

11. Which of these is most likely if a 40 y/o c/o a thunderclap headache described as the worst headache of her life localized above the left ear with nothing like it before, vomiting, photophobia, neck rigidity, ptosis and a dilated pupil with that eye pulled to the ear?
    A. Migraine headache
    B. Transtentorial herniation
    C. Subarachnoid hemorrhage
    D. Bleeding from a tumor behind the eye

Obj. 14 Select the appropriate method to secure an airway in a patient with suspected stroke who presents with AMS.(Stroke SOP, p. 32; DAI SOP, p. 9)

40. An adult is unconscious after c/o a sudden, severe headache. The pt withdraws & has no verbal response or eye opening to pain. Ventilations are snoring at a rate of 8, gag reflex is present; SpO_2 80%, and the pt is vomiting. Which is indicated to provide optimal airway management?
    A. DAI
    B. King airway
    C. CPAP at 5 cm PEEP
    D. OPA, suction & 15 L/ NRM

41. An unconscious adult w/ stroke symptoms has a GCS of 3. The airway is impaired with pooled secretions and poor ventilatory effort, SpO_2 is 89% on RA. There is no gag reflex. Which of these is the most appropriate definitive airway management for this pt?
    A. DAI
    B. Endotracheal intubation
    C. Elevation of HOB 30° & and oral airway
    D. Manual repositioning of the jaw and 2 NPAs

42. Why is lidocaine given as a premedication prior to intubating a patient with a possible stroke?
    A. Blunts catecholamine response and protects brain from increased ICP during procedure
    B. Pulls water out of swollen brain cells to diminish cerebral edema during procedure
    C. Prevents cardiac dysrhythmias due to hypoxia during tube placement
    D. Helps to render the patient unconscious by numbing the brain

Obj. 15 Given a scenario, determine the appropriate use of oxygen in a patient with suspected stroke.(Stroke SOP, p. 21; IMC SOP, p. 3)

43. An adult w/ stroke symptoms has RR 12; mild resp. distress, clear lungs; RA SpO_2 92%. Which of these is most appropriate for this pt?
    A. No oxygen
    B. O_2/NC to maintain SpO_2 at 94%
    C. Assisted ventilations w/ O_2 15L BVM
    D. O_2 15 L/NRM to maintain SpO_2 >96%

44. An adult w/ AMS (GCS 12) and stroke signs has shallow RR at 8/min; SpO_2 is 91% $EtCO_2$ 60; Which of these is most appropriate for this pt?
    A. No oxygen
    B. O_2 1-6 L/NC
    C. O_2 15 L/NRM
    D. O_2 15 L/BVM at 10-12 BPM

45. A conscious adult w/ arm weakness and facial droop presents with BP 190/110; P 80; R 16; and SpO_2 98%. Why is it important to withhold O_2 from this patient?
    A. Hyperoxia can mask neuro deficits
    B. Clots cannot expand in an anaerobic environment
    C. Hyperoxia causes free radical formation & cerebral vasoconstriction
    D. Neurologists need an O_2 free baseline on which to determine interventions

Obj. 16 Sequence the appropriate IMC for a patient with suspected stroke including vascular access, positioning, and use of medications.(Stroke SOP, p. 32)

46. Why is it important for EMS to defer IV access on scene unless needed in pts with a stroke?
    A. IV fluids can dilute clotting factors
    B. Fluid loading worsens cerebral edema
    C. IV fluids & drugs should only be given through the central lines used for tPA
    D. These pts need filtered IV catheters to reduce incidence of venous inflammation

47. How should a conscious pt with a stroke be positioned if hemodynamically stable (BP 150/90)?
    A. High Fowler's, sitting straight up
    B. Supine with the head elevated on 2 pillows
    C. Flat with the head and neck immobilized for 24 hours
    D. Neutral alignment with head of stretcher elevated 10°-15°

48. What should be given to an adult male who weighs 210 pounds with a suspected stroke who presents with a generalized topic clonic seizure?
    A. Etomidate 40 mg IVP
    B. Midazolam 10 mg IN
    C. Dextrose or glucagon IVP
    D. Magnesium sulfate 2 Gm slow IVP

Obj. 17 Explain the need for short scene times and immediate transport of patients with possible stroke (time-sensitive interventions at hospitals).(Stroke SOP, p. 32; ISM p. 13, CE packet p. 3)		
49. Why is the maximum scene time target 10 minutes or less for a pt with a possible stroke? A. IV fibrinolytics must be given within a limited frame after the onset of S&S B. There is nothing that EMS personnel can do to help a stroke victim C. Complications are likely within the first 30 minutes that need physician intervention D. The first CT scan obtained ASAP after symptom onset is most accurate	50. Short scene times contribute to achievement of which therapy goal for pts w/ ischemic stroke? A. Rapid mobilization of stroke teams B. Maximal functional recovery to pre-stroke baseline C. Optimal restoration of collateral circulation to the core ischemic zone D. Offset longer transport times to required to reach Primary Stroke Centers	51.
Obj.18 Compare and contrast the services offered at primary and comprehensive stroke centers. (ISM, p. 11-12)		
52. Which of these can be done at a Comprehensive Stroke Center that is not available at a Primary Stroke Center? A. IV tPA B. Craniotomy C. 24/7 Brain imaging D. Clot retrieval using the MERCI procedure	53. Which of these can be done at a Comprehensive Stroke Center that is not available at a Primary Stroke Center? A. 24/7 lab services B. 24/7 Brain imaging C. Activation of a stroke alert D. Intra-arterial thrombolytic therapy	54. Which of these can be done at a Comprehensive Stroke Center that is not available at a Primary Stroke Center? A. 24/7 lab services B. 24/7 Brain imaging C. Endovascular services D. Activation of a stroke alert
Obj. 19 Correlate the time of symptom onset to selecting the most appropriate receiving hospital for patients experiencing a possible stroke. (SOP, p. 32; IMS p.11-12)		
55. An elderly adult began having garbled speech and arm weakness 30 minutes ago. Where should the patient be transported if all can be reached w/in 30 minutes by ground? A. Level I or II trauma center B. Nearest or requested hospital C. Primary or Comprehensive Stroke Center	56. A spouse reports leaving to go to work at 9 AM. The pt was normal at that time. At 2 PM, the spouse found the pt w/ AMS and left sided weakness. Which facility is most appropriate, per SOP transport goals if all are w/in 30 minutes by ground? A. Primary Stroke Center B. Comprehensive Stroke Center C. Nearest or requested hospital	57. An adult is found by a family member confused, soiled, and unable to stand w/out falling. The pt was last seen normal 3 days ago. Which facility is most appropriate per SOP transport goals if all are w/in 30 minutes by ground? A. Primary Stroke Center B. Comprehensive Stroke Center C. Nearest or requested hospital
Obj. 20. Identify the information that must be reported to OLMC regarding a patient with possible stroke. (SOP, p. 32)		
58. Which of these should be included in the report to OLMC to notify them of a potential stroke alert per SOP? A. CSS findings B. Response location C. Full cranial nerve exam D. Short vs. long-term memory loss	59. Which of these should be included in the report to OLMC to notify them of a potential stroke alert per SOP? A. Time of last meal B. Pt's affect and mood C. Time of symptom onset D. Grooming and personal hygiene	60. Which of these should be included in the report to OLMC to notify them of a potential stroke alert per SOP? A. PMH risk factors & glucose level B. Obsessive/compulsive behaviors C. Any evidence of "Locked In Syndrome" D. Abstract reasoning and thought content