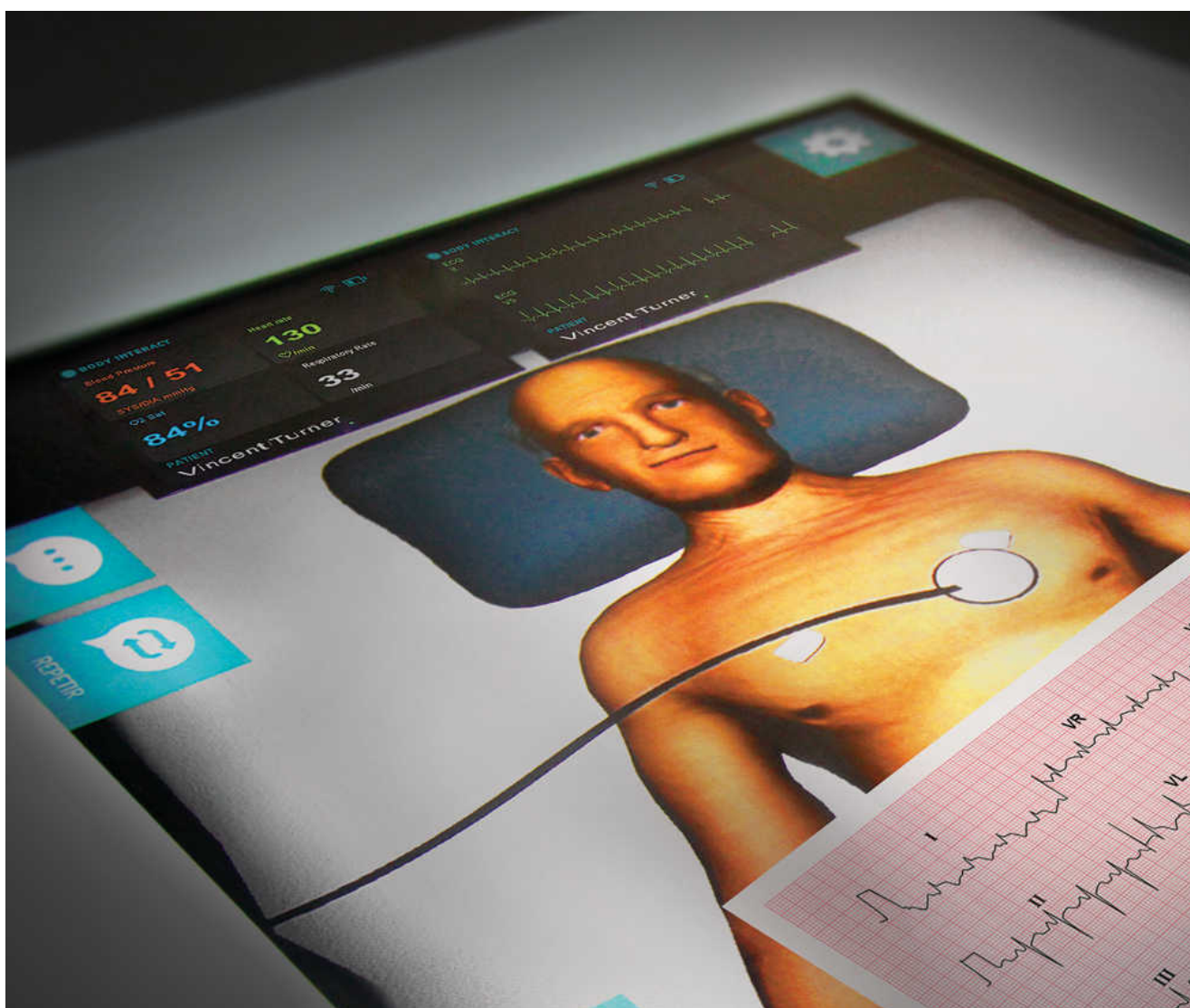


BODY INTERACT™

CLINICAL REASONING EDUCATION



SCENARIO 31 - DARRYL SAYLOR

MEDICAL CATEGORY: NEUROLOGY

CASE DIFFICULTY: ADVANCED

SIMULATION ENVIRONMENT: EMERGENCY ROOM

These patients are not real patients and their clinical cases, whilst clinically plausible, are fictional.

Case 31
Darryl Saylor

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Version: V4

Date: 23/03/2017

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OVERVIEW



| | | | |
|---------------------------------|-----------------|--|---|
| CONTEXT | | While having dinner at home, Mr. Saylor suddenly felt difficulty in talking and moving his right arm. His wife called the emergency unit as soon as she could. | |
| BRIEFING | | Male, seventy years old. Sudden onset of speech impairment and right-sided weakness two hours ago. Previous hypertension and dyslipidemia. | |
| LEARNING OBJECTIVES | GENERAL | Recognize acute stroke | |
| | SPECIFIC | Start vital signs vigilance in acute care; Performance of neurological assessments (NIHSS); Knowledge of alteplase dosing protocol. | |
| PATIENT CHARACTERIZATION | | Patient name: | Darryl Saylor |
| | | BMI: | 33.5 (obesity) |
| | | Weight (kg): | 106 |
| | | Weight (lb): | 234 |
| | | Chronic conditions: | Persistent atrial fibrillation; Hypertension; Dyslipidemia. |

Notes: These patients are not real patients and their clinical cases, whilst clinically plausible, are fictional.

ABCDE ASSESSMENT

| CATEGORY | PARAMETERS | EVALUATION | PRIORITY |
|--------------------|--|---|----------------|
| AIRWAY | Breath sounds | Normal | 1st Priority |
| | Airway observation | Clear | 1st Priority |
| BREATHING | Signs of respiratory distress | Normal | 1st Priority |
| | Respiratory rate | 14/min | 1st Priority |
| | Chest excursion | Normal | 1st Priority |
| | Chest deformity, raised JVP, chest drains | Normal | 1st Priority |
| | O2 Sat | 96% | 1st Priority |
| | Chest percussion | Right: 1R- resonance; 2R- resonance; 3R- resonance; 4R- resonance; 5R- dullness. Left: 1L- resonance; 2L- resonance; 3L- superficial cardiac dullness; 4L- superficial cardiac dullness; 5L- resonance. | Not a Priority |
| | Chest palpation | 2L- normal; 2R- normal | Not a Priority |
| | Pulmonary auscultation | Normal | 2nd Priority |
| CIRCULATION | Hands and digits | Pink and warm | 1st Priority |
| | Heart rate | 110 bpm | 1st Priority |
| | Peripheral pulses | Carotid- Strong and Irregular; Radial- Strong and Irregular, equal on both sides; Femoral- Strong and Irregular, equal on both sides; Dorsalis pedis- Strong and Irregular, equal on both sides. | Not a Priority |
| | Blood pressure | 160 / 90 mmHg | 1st Priority |
| | Capillary refill time (CRT) | 1.3 seconds | Not a Priority |
| | Heart auscultation | Persistent atrial fibrillation | 2nd Priority |
| | Urinary output | 0.57 mL/kg/h / 60.42 mL/h | 2nd Priority |
| | External hemorrhage (wounds), drains, concealed hemorrhage | No | 2nd Priority |
| DISABILITY | <i>Pupils (size, equality and reaction to light)*</i> | Equal and reactive to light | 2nd Priority |
| | Level of consciousness (Glasgow Coma Scale) | 12 (E4-V3-M5) | 2nd Priority |
| | Blood Glucose | 94 mg/dL / 5.217 mmol/L | 1st Priority |
| | <i>Full body (front)*</i> | Normal | Not a Priority |

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|----------|--------------------------|---|----------------|
| EXPOSURE | <i>Full body (back)*</i> | Normal | Not a Priority |
| | Abdomen percussion | 6R- tympanic; 7R- tympanic; 6L- tympanic; 7L- tympanic. | Not a Priority |
| | Abdomen palpation | Tender, depressible and no pain. No visceromegaly. | Not a Priority |
| | Temperature | 36.2 °C / 97.16 °F | 2nd Priority |

* In the current version of the case, these procedures are not implemented.

DIALOGUES

Specification of dialogues with the patient during simulation:

| PATIENT PRESENTS BROCA APHASIA DUE TO STROKE | | | | | | |
|--|---------------------------|----|--|-------------------------|-------------------|----------------|
| CATEGORY | Question Availability | # | QUESTION | PATIENT REPLY | REPLY CONDITIONAL | PRIORITY |
| Medical condition | - | 1 | How are you feeling? | Luunn.... | - | 1st Priority |
| | After question 1 is asked | 2 | What happened to you? | Fee dii. | - | 1st Priority |
| | - | 3 | Concomitant health conditions? | Nee.....se..... | - | 2nd Priority |
| | - | 4 | Feeling pain? | Steeaa....Poo..... | - | 1st Priority |
| | - | 5 | Diabetes diagnosis? | Noo...haamm.... | - | 1st Priority |
| | - | 6 | Any recent weight changes? | Whiil... gaar..... | - | Not a Priority |
| | - | 7 | Did you have any serious disease recently? | Taa pii..... | - | 2nd Priority |
| | After question 2 is asked | 8 | Time since symptom onset? | Sittiin.... soffaa..... | - | 1st Priority |
| | - | 9 | Do you have any allergies? | Noo...haamm.... | - | 2nd Priority |
| Medication | - | 10 | Taking any medication? | Followwii... shoo..... | - | 1st Priority |
| | - | 11 | Medication side-effects present? | Telee..... shoowws.... | - | 2nd Priority |
| Nutrition | - | 12 | Describe your diet. | Beeerr.... afeerr..... | - | Not a Priority |
| | - | 13 | Last time you ate? | Doo....eeaat..... | - | Not a Priority |
| | - | 14 | What did you eat last time? | Steeaa....Poo..... | - | Not a Priority |
| | - | 15 | Snacks between meals? | Coouuld lii riigh. | - | Not a Priority |
| | - | 16 | Taking any supplements? | Telee..... shoowws.... | - | Not a Priority |
| Activity | - | 17 | Have there been changes in appetite? | Noo...haamm.... | - | Not a Priority |
| | - | 18 | How active are you? | Muu....caarr..... | - | Not a Priority |
| | - | 19 | What were you doing when you felt ill? | Beeerr.... afeerr..... | - | 2nd Priority |
| Risk factors | - | 20 | Physical effort at time of event? | Sittiin.... soffaa..... | - | Not a Priority |
| | - | 21 | Recently under stress? | Followwii... shoo..... | - | 2nd Priority |
| | - | 22 | Frequency of alcohol consumption? | Nee.....se..... | - | Not a Priority |
| | - | 23 | Do you have high blood pressure? | Noo...haamm.... | - | 2nd Priority |
| | - | 24 | High cholesterol present? | Whiil... gaar..... | - | 2nd Priority |
| | - | 25 | Are you a smoker? | Yeeaa... soo.... | - | 2nd Priority |

| PATIENT PRESENTS BROCA APHASIA DUE TO STROKE | | | | | | |
|--|---------------------------|---|--------------------------------|--|-------------------|--------------|
| CATEGORY | Question Availability | # | QUESTION | PATIENT REPLY | REPLY CONDITIONAL | PRIORITY |
| | - | 1 | How are you feeling? | I feel the right half of my body weak. | - | 1st Priority |
| | After question 1 is asked | 2 | What happened to you? | I was dinning with my wife at home and suddenly I couldn't lift my right arm to eat. | - | 1st Priority |
| | - | 3 | Concomitant health conditions? | I had a heart attack one year ago. | - | 2nd Priority |
| | - | 4 | Feeling pain? | No, only just a feeling of weakness on half of my body. | - | 1st Priority |

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|-------------------|---------------------------|----|--|---|---|----------------|
| Medical condition | - | 5 | Diabetes diagnosis? | Not that I know of. | - | 1st Priority |
| | - | 6 | Any recent weight changes? | No, I'm eating the same things that I usually eat and I haven't noticed any difference. | - | Not a Priority |
| | - | 7 | Did you have any serious disease recently? | Only the heart attack that I had and what I have now. | - | 2nd Priority |
| | After question 2 is asked | 8 | Time since symptom onset? | Two hours ago. | - | 1st Priority |
| | - | 9 | Do you have any allergies? | Not that I know of. | - | 2nd Priority |
| Medication | - | 10 | Taking any medication? | I'm taking atorvastatin, enalapril and aspirin, that my doctor told me to. | - | 1st Priority |
| | - | 11 | Medication side-effects present? | No, I'm feeling well with my medication. | - | 2nd Priority |
| Nutrition | - | 12 | Describe your diet. | I like eating meat dishes. I guess I don't eat as much fish as I should. | - | Not a Priority |
| | - | 13 | Last time you ate? | My last meal was dinner. It was when I started feeling like this. | - | Not a Priority |
| | - | 14 | What did you eat last time? | I was having meat with potatoes, that my wife cooked. | - | Not a Priority |
| | - | 15 | Snacks between meals? | I usually eat bread with cheese, at tea time. | - | Not a Priority |
| | - | 16 | Taking any supplements? | No, I don't take supplements. | - | Not a Priority |
| | - | 17 | Have there been changes in appetite? | No, I've been eating as usually. | - | Not a Priority |
| Activity | - | 18 | How active are you? | Once in a while I go for a walk with my wife in a public garden near our house. | - | Not a Priority |
| | - | 19 | What were you doing when you felt ill? | I was dining with my wife at home. | - | 2nd Priority |
| | - | 20 | Physical effort at time of event? | No, I was only having dinner sitting down at the table. | - | Not a Priority |
| Risk factors | - | 21 | Recently under stress? | No, I'm retired now. | - | 2nd Priority |
| | - | 22 | Frequency of alcohol consumption? | I normally drink a glass of wine with meals. | - | Not a Priority |
| | - | 23 | Do you have high blood pressure? | Yes, my doctor told me that I have. | - | 2nd Priority |
| | - | 24 | High cholesterol present? | Not that I know of. | - | 2nd Priority |
| | - | 25 | Are you a smoker? | No, I never smoked in my life. | - | 2nd Priority |

INITIAL SIMULATION CONDITIONS

| CATEGORY | DESIGNATION | COMMENTS |
|--------------------------------|---|------------------------------|
| Signs & symptoms | Broca aphasia | Due to Stroke |
| | Right sided weakness including facial asymmetry | Due to Stroke |
| Acute conditions at case start | Stroke | - |
| | Increased heart rate | Due to Stroke |
| Parameters at case start: | Blood pressure (mmHg): 160 / 90 | |
| | Heart rate (bpm): 110 | |
| | Respiratory rate (/min): 14 | |
| | O ₂ saturation (%): 96 | |
| | Blood glucose (mg/dL): 94 | Blood glucose (mmol/L): 5.22 |
| | Temperature (°C): 36.2 | Temperature (°F): 97 |
| | Hemoglobin (g/dL): 14.9 | |
| Urinary output (mL/kg/h): 0.57 | | |

SEQUENCING OF CLINICAL CONDITIONS

Description of the predefined evolution of the patient's state:

| SIMULATION TIME (MIN) | EVENT |
|-----------------------|--|
| 0 | Initial conditions: - Ischemic stroke of left hemisphere |

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- Ischemic stroke of left hemisphere causes Severe Left ischemic embolic stroke

EXAMINATION PROCEDURES

Examination procedures relevant for the case with detailed results:

| CATEGORY | TEST NAME | HEALTH CONDITIONS | TEST | RESULT DESCRIPTION | RESULT |
|----------|--------------------|---|---------------------|---|--------|
| P | Glasgow coma scale | ISCHEMIC EMBOLIC LEFT STROKE OR NO STROKE | Eye opening | 4 - Spontaneous | |
| | | | Verbal response | 3 - Words | |
| | | | Motor response | 5 - Localizing | |
| | | | Total result | 12 - Moderate impairment of consciousness | |
| | | SEVERE ISCHEMIC EMBOLIC LEFT STROKE | Eye opening | 3 - To sound | |
| | | | Verbal response | 2 - Sounds | |
| | | | Motor response | 5 - Localizing | |
| | | | Total result | 10 - Moderate impairment of consciousness | |
| | | AFTER TIMELY ALTEPLASE | Eye opening | 4 - Spontaneous | |
| | | | Verbal response | 5 - Oriented | |
| | | | Motor response | 6 - Obey commands | |
| | | | Total result | 15 - No impairment of consciousness | |
| | | ALTEPLASE OVERDOSE | Eye opening | 2 - To pressure | |
| | | | Verbal response | 2 - Sounds | |
| | | | Motor response | 5 - Localizing | |
| | | | Total result | 9 - Moderate impairment of consciousness | |

DIAGNOSTIC STRATEGIES

Complementary strategies for diagnosis relevant for the case:

| CATEGORY | TEST NAME | RESULT DESCRIPTION | PRIORITY |
|----------|----------------------------|--|--------------|
| Imaging | Carotid Doppler Ultrasound | No significant alterations | 2nd Priority |
| | Head CT | No visible lesions | 1st Priority |
| | Cerebral angio CT | Distal left MCA occlusion | 1st Priority |
| | Cerebral perfusion CT | Mismatch in a small area of the left parietal lobe | 1st Priority |

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| | Transcranial doppler | M3 left occlusion | 2nd Priority |
| Lab tests | Biochemistry | No significant alterations | 2nd Priority |
| | Complete blood count | No significant alterations | 2nd Priority |
| | Coagulation Tests | No significant alterations | 2nd Priority |
| Electrophysiology | Electrocardiogram | Atrial fibrillation | 1st Priority |
| Decision aids | Stroke Scale (NIHSS) | HEALTH CONDITIONS | 1st Priority |
| | | TEST | RESULT |
| | | 1.a- Level of Consciousness 0- Alert, Keenly responsive; 1-Not Alert; but arousable by minor stimulation; 2- Not Alert, requires repeated and strong stimulation;- 3- coma. | 0 - Alert, Keenly responsive |
| | | 1.b- LOC- Questions (month and age) 0- Both correct; 1- one correct; 2- none correct. | 2 - None correct |
| | | 1.c- LOC - Verbal Commands (open/close eyes, grip/release non-paretic hand) 0-both tasks correctly; 1- one task correctly; 2- none task correctly. | 0 - Both tasks correctly |
| | | 2- Best gaze (Only horizontal eye movements, voluntary or reflexive) 0- Normal; 1- partial gaze palsy; 2- forced deviation. | 0 - Normal |
| | | 3- Visual fields (stimuli or threats in each eye's 4 quadrants) 0- No visual loss; 1- partial hemianopia ; 2- complete hemianopia; 3- bilateral hemianopia (blind/cortical blindness). | 0 - No visual loss |
| | | 4- Facial palsy 0- Normal; 1- Right side minor paralysis; 1- Left side minor paralysis; 2- Right side partial paralysis; 2- Left side partial paralysis; 3- Right side complete paralysis; 3- Left side complete paralysis. | 2 - Right side partial paralysis |
| | | 5.a- Motor Right Arm (10" sitting at 90°, supine at 45°) 0- No drift; 1- drift, drifts does not hit bed; 2- Some effort against gravity; drifts down to bed; 3- No effort against gravity, limb falls; 4- No movement; UN - amputation or join fusion. | 4 - No movement |
| | | 5.b- Motor Left Arm (10" sitting at 90°, supine at 45°) | 0 - No drift |
| | | 6.a- Motor Right Leg (5" lying at 30°) | 2 - Some effort against gravity; Drifts down to bed |
| | | 6.b- Motor Left Leg (5" lying at 30°) | 0 - No drift |
| | | 7- Limb ataxia (finger-nose-finger; heel-shin) 0- Absent; 1- Present in one limb; 2- Present in two limbs; UN- amputation or join fusion. | 0 - Absent |
| | | 8- Sensory (sensation to pinprick when tested or withdrawal from noxious stimulus) 0- Normal; 1- mild to moderate sensory loss; 2- Severe to total sensory loss). | 0 - Normal |
| | | 9- Best Language (name items, describe a picture, read sentences) 0- No aphasia; 1- mild to moderate aphasia; 2- severe aphasia; 3- mute, global aphasia. | 2 - Severe aphasia |
| 10- Dysarthria (clarity of articulation of speech when reading or repeating words) 0- Normal; 1- mild to moderate dysarthria; 2- severe dysarthria; mute/anarthric UN-intubated or other physical barrier. | 2 - Severe dysarthria; Mute/anarthric | | |
| 11-Extinction and inattention (simultaneous bilateral visual and tactile stimuli; anosagnosia) 0- No abnormality; 1-Visual, tactile, auditory, spatial or personal inattention or extinction to one modality; 2- Profound hemi-inattention or extinction to more than one modality. | 0 - No abnormality | | |
| Total | 14 - Moderate stroke | | |
| HEALTH CONDITIONS | TEST | RESULT | |

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|-------------------------------------|---|---|--|
| | <p>1.a- Level of Consciousness 0- Alert, Keenly responsive; 1-Not Alert; but arousable by minor stimulation; 2- Not Alert, requires repeated and strong stimulation;- 3- coma.</p> <p>1.b- LOC- Questions (month and age) 0- Both correct; 1- one correct; 2- none correct.</p> <p>1.c- LOC - Verbal Commands (open/close eyes, grip/release non-paretic hand) 0-both tasks correctly; 1- one task correctly; 2- none task correctly.</p> <p>2- Best gaze (Only horizontal eye movements, voluntary or reflexive) 0- Normal; 1- partial gaze palsy; 2- forced deviation.</p> <p>3- Visual fields (stimuli or threats in each eye's 4 quadrants) 0- No visual loss; 1- partial hemianopia ; 2- complete hemianopia; 3- bilateral hemianopia (blind/cortical blindness).</p> <p>4- Facial palsy 0- Normal; 1- Right side minor paralysis; 1- Left side minor paralysis; 2- Right side partial paralysis; 2- Left side partial paralysis; 3- Right side complete paralysis; 3- Left side complete paralysis.</p> <p>5.a- Motor Right Arm (10" sitting at 90°, supine at 45°) 0- No drift; 1- drift, drifts does not hit bed; 2- Some effort against gravity; drifts down to bed; 3- No effort against gravity, limb falls; 4- No movement; UN - amputation or join fusion.</p> <p>5.b- Motor Left Arm (10" sitting at 90°, supine at 45°)</p> <p>6.a- Motor Right Leg (5" lying at 30°)</p> <p>6.b- Motor Left Leg (5" lying at 30°)</p> <p>7- Limb ataxia (finger-nose-finger; heel-shin) 0- Absent; 1- Present in one limb; 2- Present in two limbs; UN- amputation or join fusion.</p> <p>8- Sensory (sensation to pinprick when tested or withdrawal from noxious stimulus) 0- Normal; 1- mild to moderate sensory loss; 2- Severe to total sensory loss).</p> <p>9- Best Language (name items, describe a picture, read sentences) 0- No aphasia; 1- mild to moderate aphasia; 2- severe aphasia; 3- mute, global aphasia.</p> <p>10- Dysarthria (clarity of articulation of speech when reading or repeating words) 0- Normal; 1- mild to moderate dysarthria; 2- severe dysarthria; mute/anarthric UN-intubated or other physical barrier.</p> <p>11-Extinction and inattention (simultaneous bilateral visual and tactile stimuli; anosagnosia) 0- No abnormality; 1-Visual, tactile, auditory, spatial or personal inattention or extinction to one modality; 2- Profound hemi-inattention or extinction to more than one modality.</p> <p>Total</p> | <p>1 - Not Alert; but arousable by minor stimulation</p> <p>2 - None correct</p> <p>2- None task correctly</p> <p>2 - Forced deviation</p> <p>2 - Complete hemianopia</p> <p>2 - Right side partial paralysis</p> <p>4 - No movement</p> <p>0 - No drift</p> <p>4 - No movement</p> <p>0 - No drift</p> <p>0 - Absent</p> <p>1 - Mild to moderate sensory loss</p> <p>2 - Severe aphasia</p> <p>2 - Severe dysarthria; Mute/anarthric</p> <p>0 - No abnormality</p> <p>24 - Severe stroke</p> | |
| SEVERE ISCHEMIC EMBOLIC LEFT STROKE | | | |
| HEALTH CONDITIONS | TEST | RESULT | |
| | <p>1.a- Level of Consciousness 0- Alert, Keenly responsive; 1-Not Alert; but arousable by minor stimulation; 2- Not Alert, requires repeated and strong stimulation;- 3- coma.</p> <p>1.b- LOC- Questions (month and age) 0- Both correct; 1- one correct; 2- none correct.</p> <p>1.c- LOC - Verbal Commands (open/close eyes, grip/release non-paretic hand) 0-both tasks correctly; 1- one task correctly; 2- none task correctly.</p> | <p>0 - Alert, Keenly responsive</p> <p>0 - Both correct</p> <p>0 - Both tasks correctly</p> | |

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|--|------------------------------|---|--|---|
| | | <p>2- Best gaze (Only horizontal eye movements, voluntary or reflexive) 0- Normal; 1- partial gaze palsy; 2- forced deviation.</p> <p>3- Visual fields (stimuli or threats in each eye's 4 quadrants) 0- No visual loss; 1- partial hemianopia ; 2- complete hemianopia; 3- bilateral hemianopia (blind/cortical blindness).</p> <p>4- Facial palsy 0- Normal; 1- Right side minor paralysis; 1- Left side minor paralysis; 2- Right side partial paralysis; 2- Left side partial paralysis; 3- Right side complete paralysis; 3- Left side complete paralysis.</p> <p>5.a- Motor Right Arm (10" sitting at 90°, supine at 45°) 0- No drift; 1- drift, drifts does not hit bed; 2- Some effort against gravity; drifts down to bed; 3- No effort against gravity, limb falls; 4- No movement; UN - amputation or join fusion.</p> <p>5.b- Motor Left Arm (10" sitting at 90°, supine at 45°)</p> <p>6.a- Motor Right Leg (5" lying at 30°)</p> <p>6.b- Motor Left Leg (5" lying at 30°)</p> <p>7- Limb ataxia (finger-nose-finger; heel-shin) 0- Absent; 1- Present in one limb; 2- Present in two limbs; UN- amputation or join fusion.</p> <p>8- Sensory (sensation to pinprick when tested or withdrawal from noxious stimulus) 0- Normal; 1- mild to moderate sensory loss; 2- Severe to total sensory loss).</p> <p>9- Best Language (name items, describe a picture, read sentences) 0- No aphasia; 1- mild to moderate aphasia; 2- severe aphasia; 3- mute, global aphasia.</p> <p>10- Dysarthria (clarity of articulation of speech when reading or repeating words) 0- Normal; 1- mild to moderate dysarthria; 2- severe dysarthria; mute/anarthric UN-intubated or other physical barrier.</p> <p>11-Extinction and inattention (simultaneous bilateral visual and tactile stimuli; anosagnosia) 0- No abnormality; 1-Visual, tactile, auditory, spatial or personal inattention or extinction to one modality; 2- Profound hemi-inattention or extinction to more than one modality.</p> <p>Total</p> | <p>0 - Normal</p> <p>0 - No visual loss</p> <p>1 - Right side minor paralysis</p> <p>0 - No drift</p> <p>0 - No drift</p> <p>0 - No drift</p> <p>0 - No drift</p> <p>0 - Absent</p> <p>0 - Normal</p> <p>0 - No aphasia</p> <p>1 - Mild to moderate dysarthria</p> <p>0 - No abnormality</p> <p>2 - Minor stroke</p> | |
| | AFTER TIMELY ALTEPLASE | | | |
| | | HEALTH CONDITIONS | TEST | RESULT |
| | | | 1.a- Level of Consciousness 0- Alert, Keenly responsive; 1-Not Alert; but arousable by minor stimulation; 2- Not Alert, requires repeated and strong stimulation;- 3- coma. | 2 - Not Alert, requires repeated and strong stimulation |
| | | | 1.b- LOC- Questions (month and age) 0- Both correct; 1- one correct; 2- none correct. | 2 - None correct |
| | | | 1.c- LOC - Verbal Commands (open/close eyes, grip/release non-paretic hand) 0-both tasks correctly; 1- one task correctly; 2- none task correctly. | 2- None task correctly |
| | | | 2- Best gaze (Only horizontal eye movements, voluntary or reflexive) 0- Normal; 1- partial gaze palsy; 2- forced deviation. | 2 - Forced deviation |
| | | | 3- Visual fields (stimuli or threats in each eye's 4 quadrants) 0- No visual loss; 1- partial hemianopia ; 2- complete hemianopia; 3- bilateral hemianopia (blind/cortical blindness). | 2 - Complete hemianopia |
| | | | 4- Facial palsy 0- Normal; 1- Right side minor paralysis; 1- Left side minor paralysis; 2- Right side partial paralysis; 2- Left side partial paralysis; 3- Right side complete paralysis; 3- Left side complete paralysis. | 3 - Right side complete paralysis |

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|--|--------------------|--|---------------------------------------|
| | ALTEPLASE OVERDOSE | 5.a- Motor Right Arm (10" sitting at 90°, supine at 45°) 0- No drift; 1- drift, drifts does not hit bed; 2- Some effort against gravity; drifts down to bed; 3- No effort against gravity, limb falls; 4- No movement; UN - amputation or join fusion. | 4 - No movement |
| | | 5.b- Motor Left Arm (10" sitting at 90°, supine at 45°) | 0 - No drift |
| | | 6.a- Motor Right Leg (5" lying at 30°) | 4 - No movement |
| | | 6.b- Motor Left Leg (5" lying at 30°) | 0 - No drift |
| | | 7- Limb ataxia (finger-nose-finger; heel-shin) 0- Absent; 1- Present in one limb; 2- Present in two limbs; UN- amputation or join fusion. | 0 - Absent |
| | | 8- Sensory (sensation to pinprick when tested or withdrawal from noxious stimulus) 0- Normal; 1- mild to moderate sensory loss; 2- Severe to total sensory loss). | 2 - Severe to total sensory loss |
| | | 9- Best Language (name items, describe a picture, read sentences) 0- No aphasia; 1- mild to moderate aphasia; 2- severe aphasia; 3- mute, global aphasia. | 3 - Mute, global aphasia |
| | | 10- Dysarthria (clarity of articulation of speech when reading or repeating words) 0- Normal; 1- mild to moderate dysarthria; 2- severe dysarthria; mute/anarthric UN-intubated or other physical barrier. | 2 - Severe dysarthria; Mute/anarthric |
| | | 11-Extinction and inattention (simultaneous bilateral visual and tactile stimuli; anosagnosia) 0- No abnormality; 1-Visual, tactile, auditory, spatial or personal inattention or extinction to one modality; 2- Profound hemi-inattention or extinction to more than one modality. | 0 - No abnormality |
| | | Total | 28 - Severe stroke |

Notes: CT = computed tomography; NIHSS = National Institutes of Health Stroke Scale

TREATMENT / INTERVENTION OPTIONS

Medication / intervention options to treat all patient's conditions.

This table contains treatments required to treat all relevant acute health conditions present in this case.

Each cell in the first column designates a condition and the cells to the right describe its treatment options.

The "type" and "category" columns refer to the location of the treatment item in Body Interact user interface (to be filled in only by the Body Interact team).

| To treat: | TYPE | CATEGORY | DESIGNATION | DOSE | UNIT | ROUTE OF ADMINISTRATION | PRIORITY |
|--|------------|---------------|---------------|------------------------------|------|-------------------------|--------------|
| ISCHEMIC EMBOLIC LEFT STROKE / SEVERE ISCHEMIC EMBOLIC LEFT STROKE | MEDICATION | FIBRINOLYTICS | Alteplase | 0.9 mg/kg=90 mg | - | - | 1st Priority |
| | | | | 10% of dose=9 mg | mg | IV bolus | |
| | | | | 90% of dose=81 mg | mg | IV over 1 hour | |
| | TYPE | | DESCRIPTION | | | | PRIORITY |
| | CALL | | Stroke Unit * | The stroke unit is notified. | | | 1st Priority |

Note: Firstly, verify if there are contraindications for alteplase treatment (there are no contraindications).

*For Ischemic embolic stroke treatment, Call Stroke unit intervention, is an optional intervention.

| To treat: | TYPE | CATEGORY | DESIGNATION | DOSE | UNIT | ROUTE OF ADMINISTRATION | PRIORITY |
|-------------|--------------|----------|----------------|------|------|-------------------------|--------------|
| OXYGENATION | INTERVENTION | OXYGEN | Nasal cannula | - | - | - | 2nd Priority |
| | | | High flow mask | 40 | % | - | 2nd Priority |

ENDING MESSAGES

Each ending message text is required to have no more than 200 characters (including spaces).

Case 31
Darryl Saylor

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Version: V4

Date: 23/03/2017

Body Interact v5

| TYPE | CONDITIONAL | MESSAGE |
|---------|---|--|
| Success | Treating the patient's conditions according to guidelines | Congratulations, your practice meets the guidelines' requirements. |
| Failure | Alteplase overdosing | The patient suffered a severe intracranial hemorrhage, and underwent emergency neurosurgery. Recovered with severe permanent disability. |

DIFFERENTIAL DIAGNOSIS

Indication of the options of diagnostic answers that the user will be presented at the end of the simulation (multiple choice question):

| | | |
|--|---------------------|---------------------|
| DIFFERENTIAL DIAGNOSIS MULTIPLE CHOICE QUESTION | Correct answer | Ischemic stroke |
| | 3 incorrect answers | Conversion disorder |
| | | Epileptic crisis |
| | | Cerebral tumor |

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