# Appendix 7

# Assessment and Scoring Tools

# APGAR Scale

| | 0 points | 1 point | 2 points |
|---|---|---|---|
| Heart Rate | Absent | <100 | >100 |
| Respiratory Rate | Absent | Slow, irregular | Good, drying |
| Irritability | Flaccid | Some flexion | Active motion |
| Irritability | No response | Grimace | Cough or sneeze |
| Color | Blue or Pale | Pink with blue Extremities | Fully pink |

# Cincinnati Stroke Screening Assessment Tool (FAST EXAM)

CINCINNATI STROKE SCALE (FAST)
(CHECK IF ABNORMAL)

[ ] F (face) FACIAL DROOP: Have patient smile or show teeth. (Look for asymmetry)
Normal: Both sides of the face move equally or not at all
Abnormal: One side of the patient's face droops

[ ] A (arm) MOTOR WEAKNESS: Arm Drift (close eyes, extend arms, palms up)
Normal: Remain extended equally, or drifts equally or does not move at all
Abnormal: One arm drifts down when compared with the other

[ ] S (speech) "You can't teach an old dog new tricks" (repeat phrase)
Normal: Phrase is repeated clearly and correctly
Abnormal: Words are slurred (dysarthria) or not expressed clearly

[ ] T TIME OF SYMPTOM ONSET:_____TIME ELAPSED_____

Destination: Onset less than 3 hours transport to facility capable of IV Thrombolytics within 3 hour window

Unconscious patients: Provide a central painful stimulus (sternal rub or pinch trapezius) to evaluate symmetry of grimace: pinch medical aspect (of each extremity) to evaluate symmetry of abduction.

**Fire Agency Emergency Medical Services**

# FIRST AID CONTACT LOG

**Date _____ Event _____**

**Name _____ Name _____**
**(EMT/Paramedic) (EMT/Paramedic)**

| Name | Age | Complaint | Type of 1st Aid Provided |
|---|---|---|---|
| | | | |
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# FLORIDA EMERGENCY MEDICAL SERVICES
# STROKE-TRIAGE ASSESSMENT TOOL

## DATE & TIMES

| Date: | Dispatch Time: | EMS Arrival Time: | EMS Departure Time: | ED Arrival Time: |
|---|---|---|---|---|

## BASIC DATA

| | |
|---|---|
| Patient Name | Age _____ Gender ____ |
| Witness(es) Name | Witness(es) Phone (Cell Phone #, Home #, Work #) |
| Last Time Known To Be at Baseline Neuro Status | ☐Unknown ☐Wake Up |
| Blood Glucose Level | |

**Stroke Scale**

**Stroke Screening Tool**

☐ Im**B**alance ☐ **E**yes (Loss/Double Vision) ☐ **F**acial Droop ☐ **A**rm and/or Leg Drift ☐ Abnormal **S**peech

Scale used: ☐ CPSS✪ ☐LAPSS✪ ☐BE-FAST✪ Other: _____

**Stroke Severity Tools** [Predictive of Large Vessel Occlusion (LVO✪)]

☐ LAMS✪ ☐ RACE✪ ☐ C-STAT✪ ☐ FAST-ED✪ ☐VAN✪

☐ Other: _____ Numerical score: _____ Cortical signs (circle): Y N

(Gaze, Aphasia and/or Neglect)

## STROKE ALERT CRITERIA

| OF THE FOLLOWING CRITERIA, **IF ANSWER IS YES TO ALL, *CALL STROKE ALERT*** | **YES** | **NO** |
|---|---|---|
| 1. Onset <24 hours including unknown onset and wake up stroke? | | |
| 2. Any abnormal focal neurological findings on stroke scale and/or neurological exam? | | |
| 3. Absence of head trauma causing deficits? | | |
| 4. No return to baseline after hypoglycemic treatment? | | |

| ***Additional Stroke Alert Criteria: IF ANY ABNORMAL, CALL STROKE ALERT*** | | **✓ *IF ABNORMAL*** |
|---|---|---|
| **Suspicion of head bleed (SAH/ICH)** | • Sudden worst-ever headache<br>• Sudden & unexplained decreased level of consciousness<br>• Consider when: onset of symptoms after activity, nausea/vomiting, neck stiffness, acute onset GCS<15 and/or significantly elevated blood pressure | |

## STROKE TRIAGE CRITERIA

**FOR ALL STROKE ALERTS**: **TRANSPORT EMERGENTLY to closest appropriate stroke center**. (If multiple stroke center destinations exist, consideration should be made for triage to the highest-level stroke center, not exceeding an **additional transport time of approximately 20 minutes.**)

**CSC/TSC Priority Criteria:** If any of the following items are checked **TRANSPORT EMERGENTLY to a CSC/TSC** if available within approximately **45 to 60 minutes**.

| | |
|---|---|
| 1. Onset > 3.5 and < 24 hours, including wake up stroke and unknown onset stroke | |
| 2. High Suspicion of Major Stroke / LVO on Stroke Severity Scale (i.e. +Cortical signs) | |
| 3. High suspicion of SAH/ICH | |
| 4. IV Lytic Contraindications (e.g. blood thinners, recent surgery, prior head bleed etc.) | |

✪ BE-FAST = Balance Eyes Face Arm Speech Time CSC = Comprehensive Stroke Center
CPSS = Cincinnati Pre-Hospital Stroke Severity scale
FAST-ED = Field Assessment Stroke Triage for Emergency Destination GCS = Glasgow Coma Scale
LAMS = Los Angeles Motor Scale VAN = Vision Aphasia Neglect
LAPSS = Los Angeles Pre-Hospital Stroke Score LVO = Large Vessel Occlusion
PSC = Primary Stroke Center
RACE = Rapid Arterial Occlusion Evaluation TSC = Thrombectomy Capable Stroke Center ASRH = Acute Stroke Ready Hospital

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# Glasgow Coma Scale

| | | |
|---|---|---|
| Eyes | Opens Eyes Spontaneously | 4 |
| | Opens eyes to Verbal Stimuli | 3 |
| | Opens Eyes to Painful Stimuli | 2 |
| | Fails to Open Eyes | 1 |
| Verbal Response | Appropriate Conversation / Oriented to Month and Year | 5 |
| | Confused and / or Disoriented | 4 |
| | Inappropriate Conversation / Answers | 3 |
| | Incomprehensible Sounds | 2 |
| | No Verbal Response | 1 |
| Motor Response | Follows Directions | 6 |
| | Removes Pain Source | 5 |
| | Withdraws From Pain Source | 4 |
| | Non-purposeful Flexion (Decorticate) | 3 |
| | Non-purposeful Extension (Decerebrate) | 2 |
| | No Motor Response | 1 |

Transfer total to Other Side (Trauma Score)

# Trauma Alert Criteria

## A. Adult Trauma (age 16 and older)

1. Any **One** of the following:

- The patient requires active airway assistance (other than supplemental $O_2$).
- The heart rate is greater than 120 bpm without radial pulse.
- The systolic BP is less than 90mm/hg without a radial pulse.
- Best motor response is less than or equal to 4 or the Glasgow coma scale is less or equal to 12.
- There is 2nd or 3rd degree or burns greater to or equal 15% or more of the total body surface area.
- There is amputation proximal to the wrist or ankle.
- There is penetration injury to the head, neck, or torso excluding superficial wounds where the depth of the wound can be determined.
- There are two or more long-bone fracture sites (i.e. forearm and lower leg).
- There is paralysis, loss of sensation, or suspicion of spinal injury.

2. Or any **Two Or More** of the following:

- The respiratory rate is 30 or more.
- Sustained heart rate is 120 beats per minute or more.
- Best motor response is 5 or less on the Glasgow coma scale.
- There is major de-gloving injury of a flap avulsion greater than 5".
- There is a gunshot wound (GSW) to an extremity.
- There is one long-bone fracture from a MVC or a fall of 10 feet or greater.
- The patient's age is 55 or older.
- The patient was ejected from a motor vehicle, including motorcycle, moped, ATV, or open body of a pick-up truck.
- The patient caused steering wheel deformity by impact.

**B. Pediatric Trauma (Age < 16)**

1. Any **One** of the following:

    - Active airway assistance required beyond administration of oxygen
    - Any airway adjunct including manual jaw thrust, suctioning or others to assist ventilation
    - Altered mental status
    - Paralysis, loss of sensation, or suspected spinal cord injury
    - Faint or nonpalpaple carotid or femoral Pulse
    - Systolic BP < 50
    - Open long bone fracture, multiple fractures or multiple dislocation sites
    - Major degloving or flap avulsions
    - 2nd or 3rd degree burns on ≥ 10% of body
    - Amputation proximal to wrist or ankle
    - Penetrating injury to head, neck, or torso excluding superficial wounds where the depth of the wound can be determined

2. Or any **two or more** of the following:

    - Suspected amnesia
    - Systolic BP < 90
    - Palpable carotid or femoral pulse but no radial or pedal pulse
    - Suspected closed long –bone fracture
    - Patient weighs ≤ 11kg, or body length is ≤ 33 inches

**Or judgment of EMT, paramedic, or other healthcare professional. (must be documented in the Patient care record).**

# Trauma Score

| | | |
|---|---|---|
| Respiratory Rate | 10 – 24 minute | 4 |
| | 25 – 35 minute | 3 |
| | 36 minute or greater | 2 |
| | 1 – 9 minute | 1 |
| | None | 0 |
| Respiratory Expansion | Normal | 1 |
| | Retractive | 0 |
| Systolic Pressure | 90 mm Hg or greater | 4 |
| | 70 – 89 mm Hg | 3 |
| | 50 – 69 mm Hg | 2 |
| | 0 – 49 mm Hg | 1 |
| | No Pulse | 0 |
| Capillary Refill | Normal | 2 |
| | Delayed | 1 |
| | None | 0 |
| Total GCS Score | 14 – 15 = | 5 |
| | 11 – 13 = | 4 |
| | 8 – 10 = | 3 |
| | 5 – 7 = | 2 |
| | 3 – 4 = | 1 |

Total Trauma Score =

# Pediatric Trauma Score

| PARAMETER | +2 | +1 | -1 |
|---|---|---|---|
| AIRWAY | No Respiratory Assistance Required | Requires Positioning Constant Observation | Requires Invasive Procedures |
| WEIGHT | > 20 kg | 10 – 20 kg | < 10 kg |
| CNS | Fully Awake | History of Syncope or Repeated Vomiting | Coma or Seizures |
| CIRCULATION | Systolic B: > 90 | Systolic BP 50 – 90 | Systolic BP < 50 |
| SKELETAL INJURIES | None | Closed Deformity | Open Fx. or Multiple Closed Fx. |
| SKIN | None | Minor Wounds Abrasions, Lacerations | Major Open Wounds Penetrating Wounds |

NOTE:

Total possible score is +12; lowest possible score is -6. Children with a score lower than 8 generally have a poor outcome and should be transferred to a tertiary care facility.
Source – The Journal of Trauma. Volume 28, Number 4, pp. 425 – 429

# Infant / Child Vital Signs by Age

| Age | Resp. Rate | Pulse | Systolic BP |
|---|---|---|---|
| Newborn | 30 – 60 | 100 – 160 | 50 – 70 mm Hg |
| 1 – 6 Weeks | 30 – 60 | 100 – 160 | 70 – 95 mm Hg |
| 6 Months | 25 – 40 | 90 – 120 | 80 – 100 mm Hg |
| 1 Year | 20 – 30 | 90 – 120 | 80 – 100 mm Hg |
| 3 Years | 20 – 30 | 80 – 120 | 80 – 110 mm Hg |
| 6 Years | 18 – 25 | 70 – 110 | 80 – 110 mm Hg |
| 10 Years | 15 – 20 | 60 – 90 | 90 – 120 mm Hg |

# VAN Exam Stroke Severity Assessment Tool

**Time of on set: < 3 hr, > 3 hr or unknown**

**Is ARM weakness present?**

☐ Yes Continue the VAN exam

☐ No. Patient is VAN negative. Stop VAN Exam.

| | Yes | No |
|---|---|---|
| **Visual Disturbance?** | | |
| **Aphasia?** | | |
| **Neglect?** | | |

If patient has **any degree of weakness PLUS any one of the below:**
**V**isual Disturbance (Assess field cut by testing both sides, 2 fingers right, 1 left)
**A**phasia (Inability to speak or understand. Repeat and name 2 objects, close eyes, make fist)
**N**eglect (Forced gaze to one side or ignoring one side, touching both sides)
This is likely a large artery clot (cortical symptoms) = VAN Positive