911 Dispatch Stroke Assessment -
Protocol to decrease time to treatment at Stroke Centers

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Goal of project

- Rapid Stroke Screening by 911 Paramedic Dispatchers
- Alerts to responding crews
- Rapid On scene assessment
- Call Stroke Alert From Scene
- Rapid Load-Less than 10 minute transport unit on scene time.
- Do what you can enroute
- Education in 2016 & 2017 with VAN Training target group and all Medics

This patient has left sided facial droop
911 Call

- If Stroke Symptoms—Shunt to Card 28-Stroke Card Units are Dispatched-

- Tell me why you think it’s a Stroke?

- The Paramedic Dispatchers will interrogate caller or patient to do a version of a FAST Stroke Assessment

  - Face- Was the smile equal on both sides?
  - Arm- Raise both arms above his/her head?
  - Speech- Say “The early bird catches the worm” ---Any slurred or Garbled speech?
  - Time- What Time did these symptoms Start
  - History Ever had a Stroke before?
1. We need to do a **quick test** on her/him for the medics **before** they arrive. I want you to get **close enough** to ask her/him to do **three things**. **Tell me** when you’re **ready**.

2. **(Ready)** Ask her/him to **smile**.
   a. **(Wait)** Was the smile **equal** on **both sides** of her/his mouth?
      - Normal smile
      - Slight difference in smile (possible difference)
      - Only one side of mouth or face shows a smile (obvious difference)
      - Cannot complete request at all

3. Ask her/him to **raise both arms above** her/his **head**.
   a. **(Wait)** What was s/he **able** to do?
      - Both arms raised equally
      - One arm higher than other (both raised, but unequally)
      - Only one arm raised
      - Cannot complete request at all

4. Ask her/him to say, “The early bird catches the worm.”
   a. **(Wait)** Was s/he able to **repeat it correctly**?
      i. **(Clarify)** Was it **slurred, garbled, or not understandable**?
         - Said correctly
         - Slurred speech
         - Garbled or not understandable speech
         - Cannot complete request at all

**FORMULA FOR DETERMINING WEIGHTED EVIDENCE OF STROKE**

- Add up the scores that are assigned to each answer in the **SCORE** column:
  - \( \geq 3 \) = **Clear evidence of stroke**
  - 2 = **Strong evidence of stroke**
  - 1 = **Partial evidence of stroke**
  - 0 = **No test evidence of stroke**

**Consider notification** of the appropriate Stroke Center for patients with **clear, strong, or partial** evidence of stroke.
If Stroke score is greater than 2...

Dispatch message:

“Dispatch has confirmed Positive Stroke Score-Initiate rapid assessment, Stroke Center Notification & rapid transit if Stroke Alert Criteria are met“
First On Scene

- **FAST** Stroke Assessment
- Last Known Well time = **Less than 6 hrs?**
- Blood Glucose (60-600)
- Oxygen only if SaO₂ <94%
- Nothing By Mouth
- Plan for rapid extrication
Medic Unit

- Bring the Stretcher to the Patient
- Platinum 10 Minutes on scene
- “ACME General, Medic 24 has a Stroke Alert...onset at 1530 hrs. eta is 12 minutes”
- Do everything enroute
SAFD Stroke Alert Time
Scene Early 2016

EMS Scene Time
Activated Stroke Alert

Median Scene Time 15 min
And the Results are in ....

- Dispatch to door 26:49
- Dec 2017 Dispatch QA
  - 164 calls Dispatched Stroke
  - 54 Positive Stroke Score 33%
- Stroke Alert Accuracy with protocol 86%

EMS On Scene Time
"Stroke Alert Activated"
January 2017

SCENE TIME
INDIVIDUAL STROKE ALERTS
So what is next?

Are all strokes the same?
VAN Assessment

LVO vs SVO

Brain lab

Intervention

Vs

Thrombolysis
Drive time to Medical Center
Thank You

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