

# *A Bleed Indeed is a Bleed in Need*

How Accurate is a New Screening Tool for Detecting Subarachnoid Hemorrhage ( SAH ) ?

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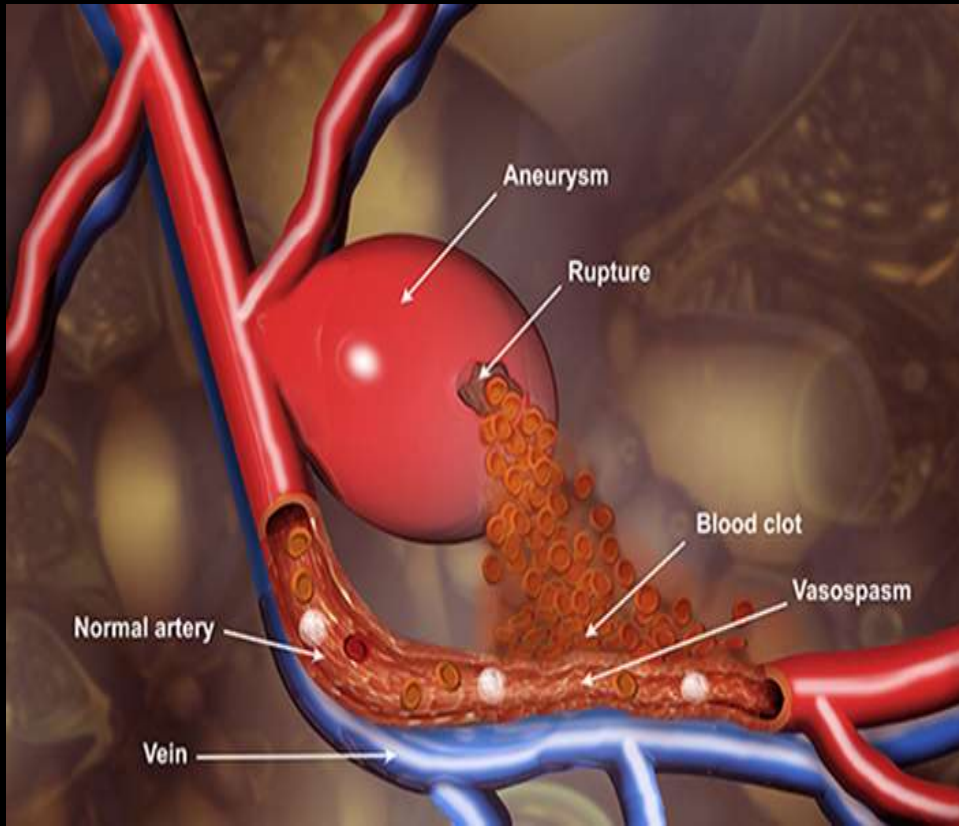
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# Subarachnoid Hemorrhage (SAH)

# Mortality and Subarachnoid Hemorrhage (SAH)

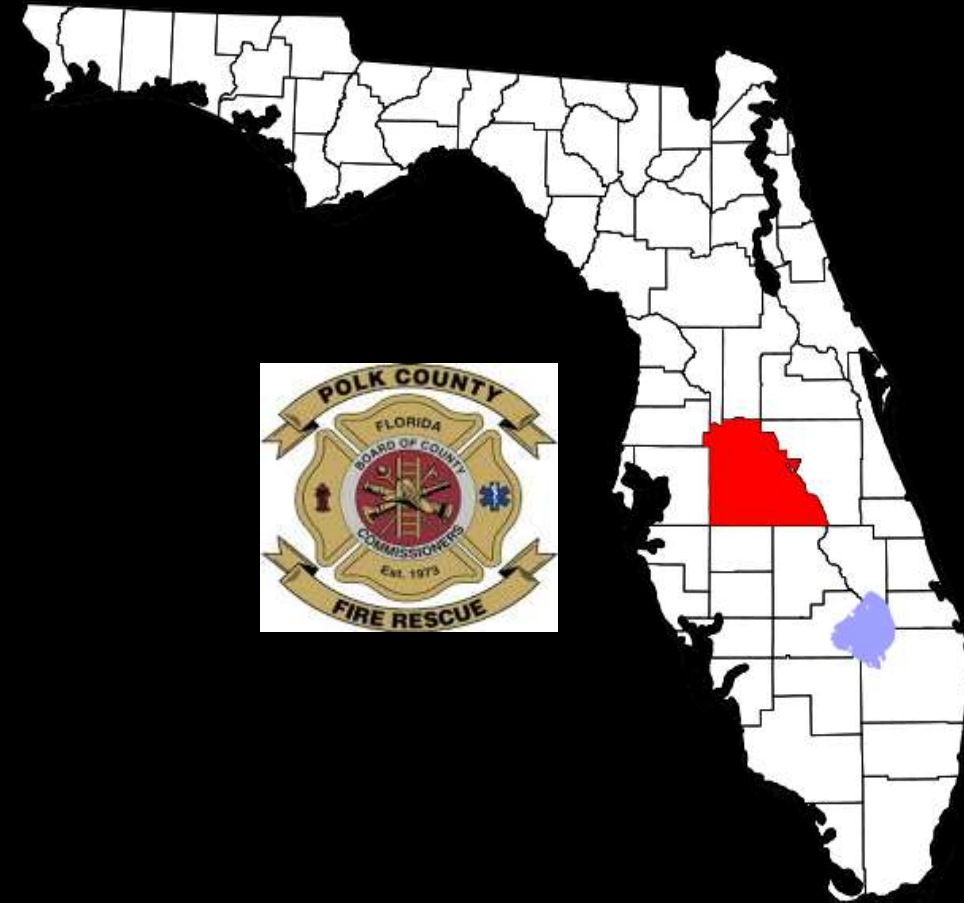
- Hemorrhagic strokes 30-Day Mortality Rates = 37.5%
  - 54% of hemorrhagic strokes are SAH
- Subarachnoid Hemorrhages have a 50% mortality rate
  - 15% will die before reaching the hospital
  - Of the survivors, 50% will suffer permanent disability...

# Signs and Symptoms of SAH

- Sudden and the worst headache ever on activity occurs 97%
- 33% of patients have no symptoms except for a headache
  - Sudden decreased LOC / Seizures / N/V
- TGH study :  $GCS < 8 + \text{Seizure at onset} + SBP > 220 = SAH 87\%$

# Polk County Fire Rescue

- 2010 square miles > States of Rhode Island and Delaware
  - Population 850,000
- 39th largest fire department in the US
- 125,605 calls in Polk County
  - 102,091 EMS transports
  - ~ 900 pre-hospital providers
  - 2 TSC, 3 PCP
  - **0 CSC locally**
  - **4 CSC in surrounding counties**



# SAH Protocol : Age > 15

Ottawa SAH Protocol

+

Hunt Hess score < 4 to CSC

=

If the patient meets any criteria,  
then ...

- Plus, ANY 1 of the following

- New onset seizure
- Sudden onset of N/V
- Elevated SBP > 220

# CT HEAD - Pneumonic

## **Ottawa Subarachnoid Hemorrhage (OSAH) rule**

*100% sensitive, 7-15% specific: JAMA 2013, Am J Emerg Med 2015*

In alert patients >15yo with a new severe nontraumatic headache peaking <1hr, get a “CT HEAD” for SAH if there are any high risk features:

**C**ollapse (LOC)

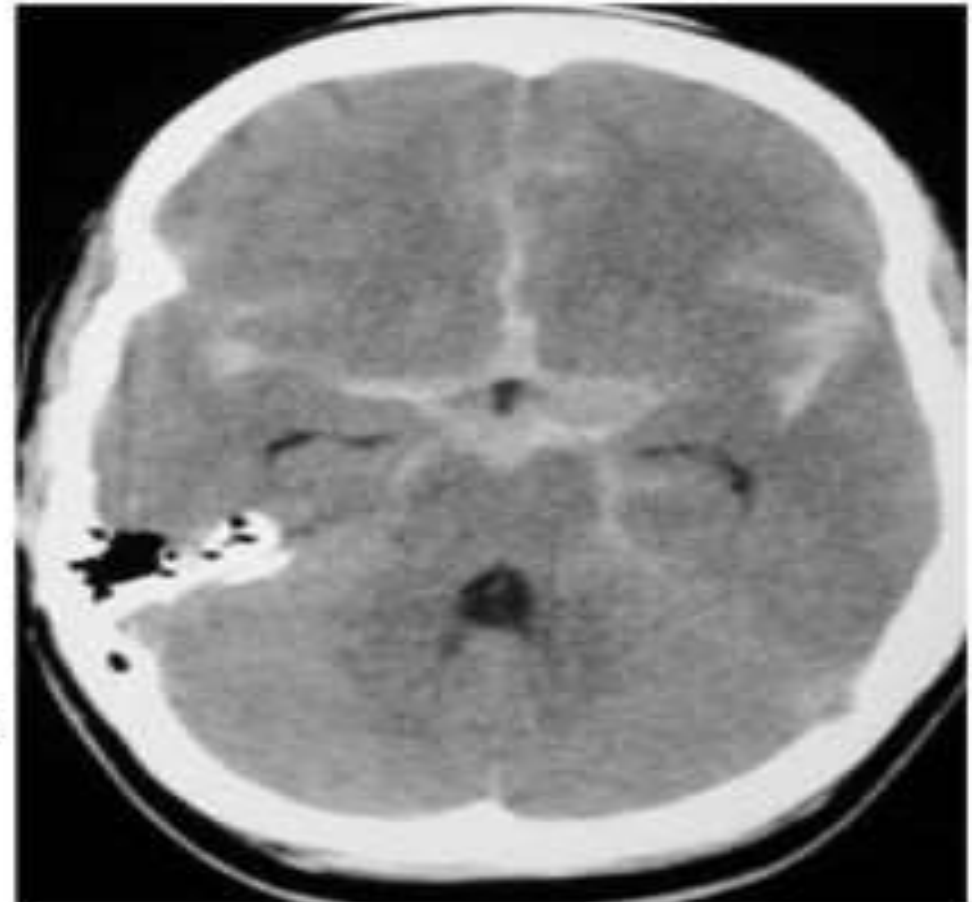
**T**hunderclap

**H**urt neck (neck pain)

**E**xertional

**A**ge 40

**D**ecreased flexion/stiff neck



# SAH Stroke Management

Blood pressure (BP) Management...  
Keep SBP < 160 and > 140mmHg

Labetalol Bolus and drip

- Antiepileptic Therapy = Keppra 1g IV



# Stroke Data 2022-23

## Polk County Fire Rescue

	2022-2023
Total Stroke	2175
In County Stroke	1773
Out of County eligible	402 = 14%
Combined Ischemic	10%
County hospitals to	3.4%

96.6%  
of our customers  
would recommend us

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