



NeuroPOCUS is a Routine Bedside Tool – not just a niche diagnostic weapon

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LA SANSE 2026

Conflict of interest
None related to this lecture

What the
dark side
wants you to
think...

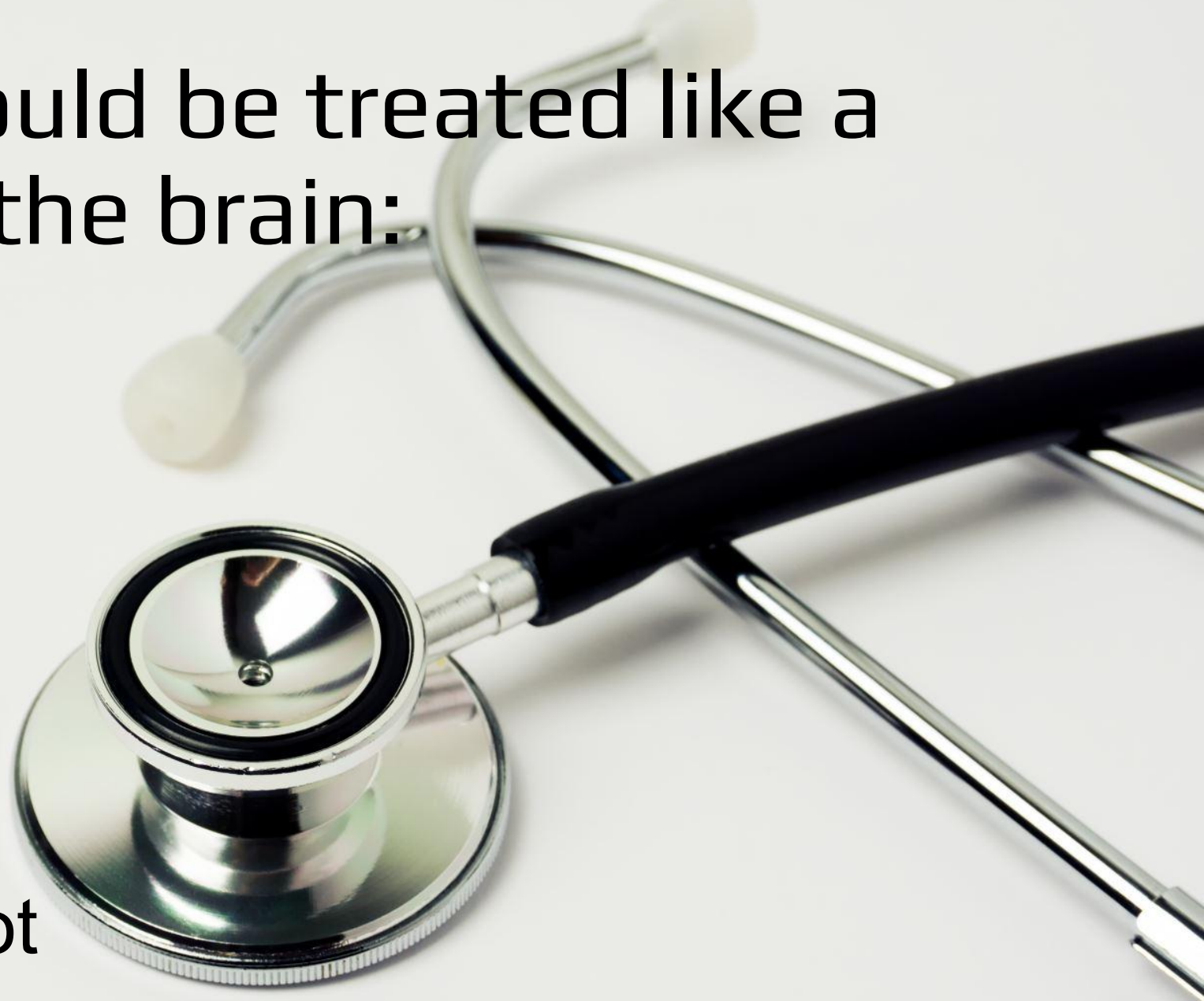


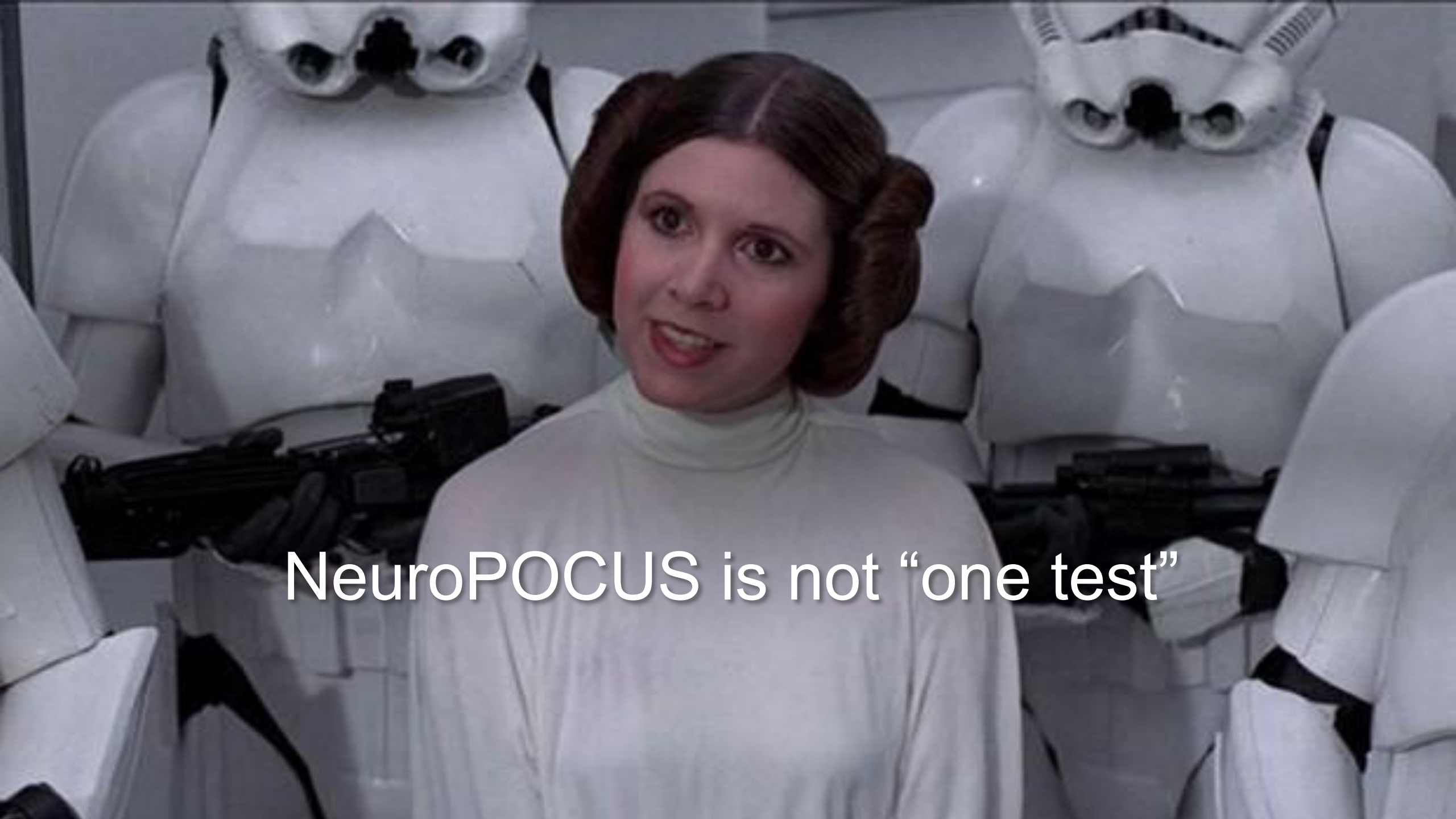


Special
Diagno
Wea

NeuroPOCUS should be treated like a stethoscope for the brain:

- Always available
- Frequently used
- Guiding moment-to-moment care
- Because neurocritical illness is **dynamic**, not episodic





NeuroPOCUS is not “one test”

What NeuroPOCUS Really Is: A multimodal bedside physiologic platform

Modality	What is measures	What it tells us
ONSD	ICP Trend	Brain Compliance
TCD	Flow, PI, autoregulation	Perfusion & Vasospasm
Brain US	Midline Shift, ventricles	Mass effect
Carotid US	Flow & Stenosis	Stroke mechanism
CPP surrogates	ICP + MAP physiology	Treatment targets



Continuous brain monitoring

That is a diagnostic weapon



THIS IS THE WEAPON OF A JEDI KNIGHT

“Specialized Weapon” View implies

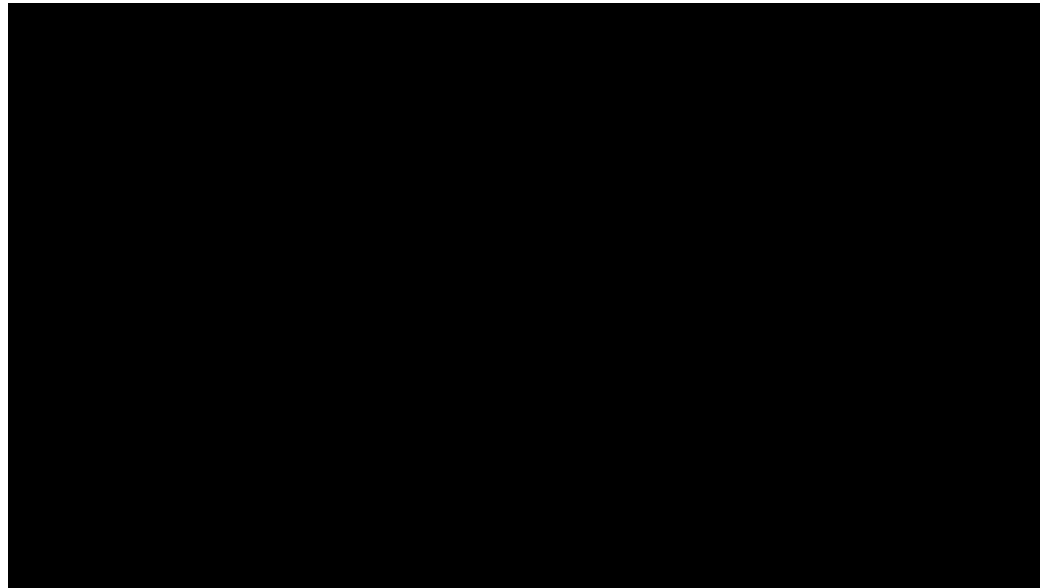


It is rare

It is episodic

It is only for
confirmation

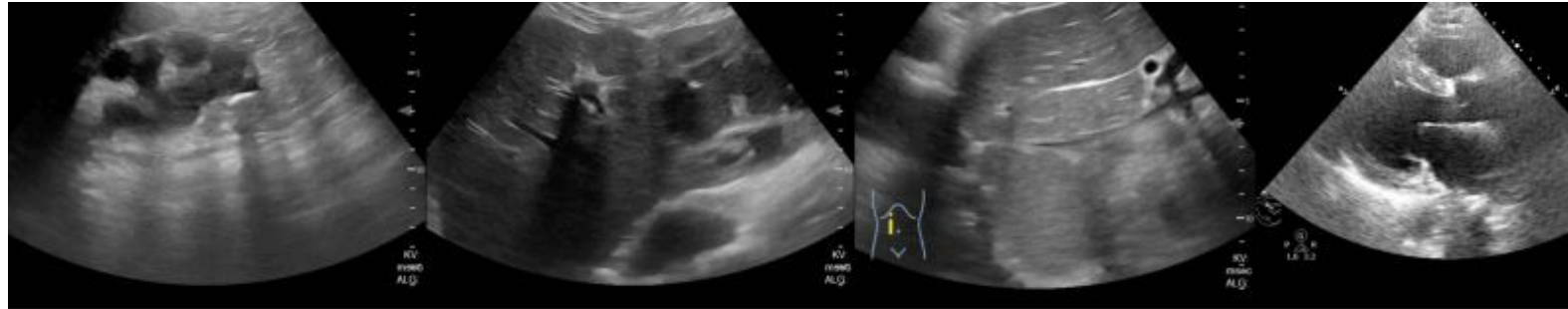
Neurocritical Care is



Continuous

Time-Sensi
tive

Physiology
-Driven



**Sepsis
Diagnosis**

**Source
Control**

**Fluid /
Hemodynamics**

SIC
Sepsis induce Cardiomyopathy

POCUS IN SEPSIS




Air

Fluid

Compression



A close-up of a man's face, likely Obi-Wan Kenobi, with a red glow and a dark, textured background. The man has a beard and is looking slightly to the right. The lighting is dramatic, with a strong red hue on the right side of his face and a dark, almost black background on the left. The overall mood is intense and somber.

What happens
when you make it
specialized?

I am not your failure, Obi Wan

If NeuroPOCUS is restricted:

- Only a “select” few use it
- You only use it when you already suspect disaster
- You miss early physiology
- You act late

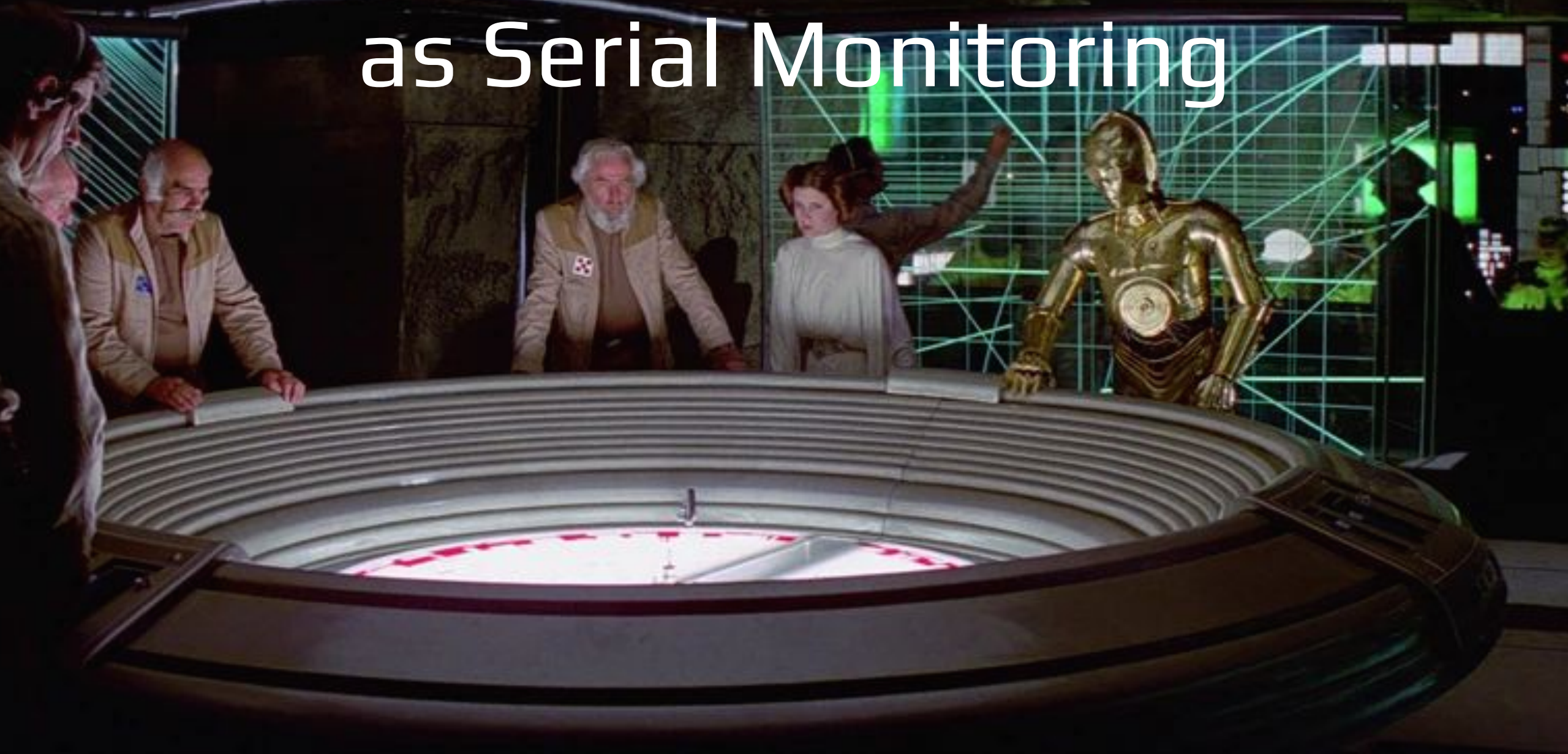


NeuroPOCUS was designed to **detect evolving injury before collapse.**

Why routine
use matter?



NeuroPOCUS works best
as Serial Monitoring



Optic Nerve Sheath Diameter

- ICP trends
- Response to hypertonic tx
- Brain Compliance

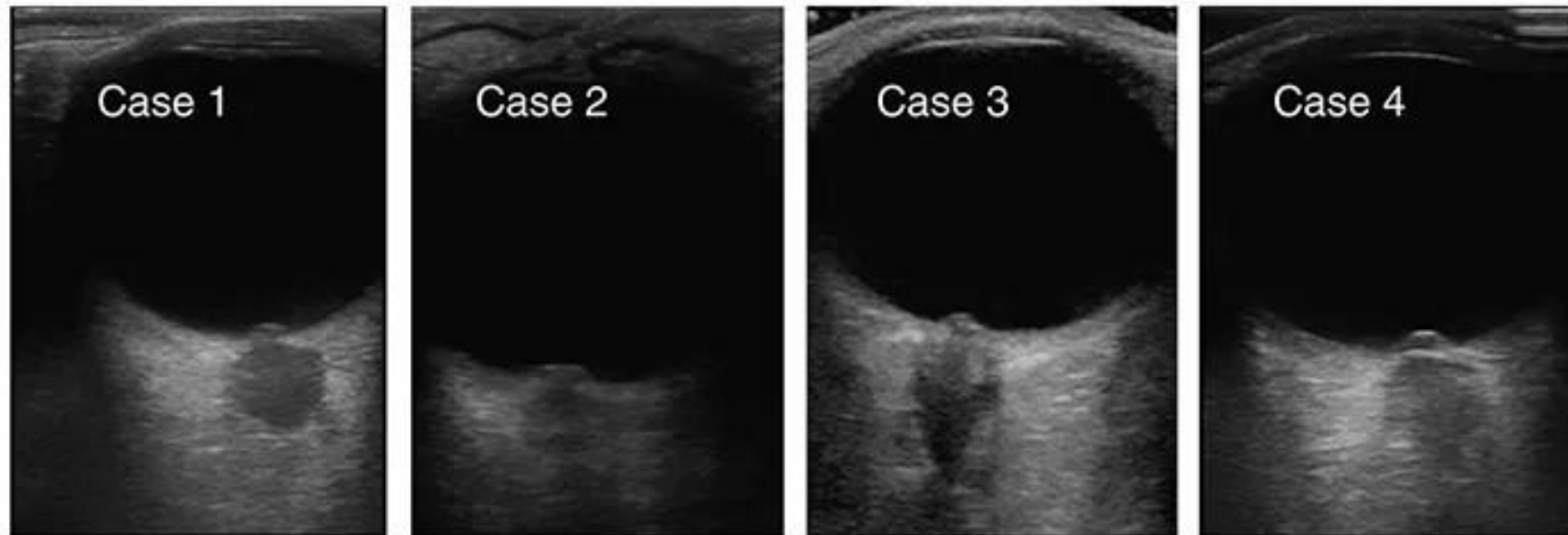
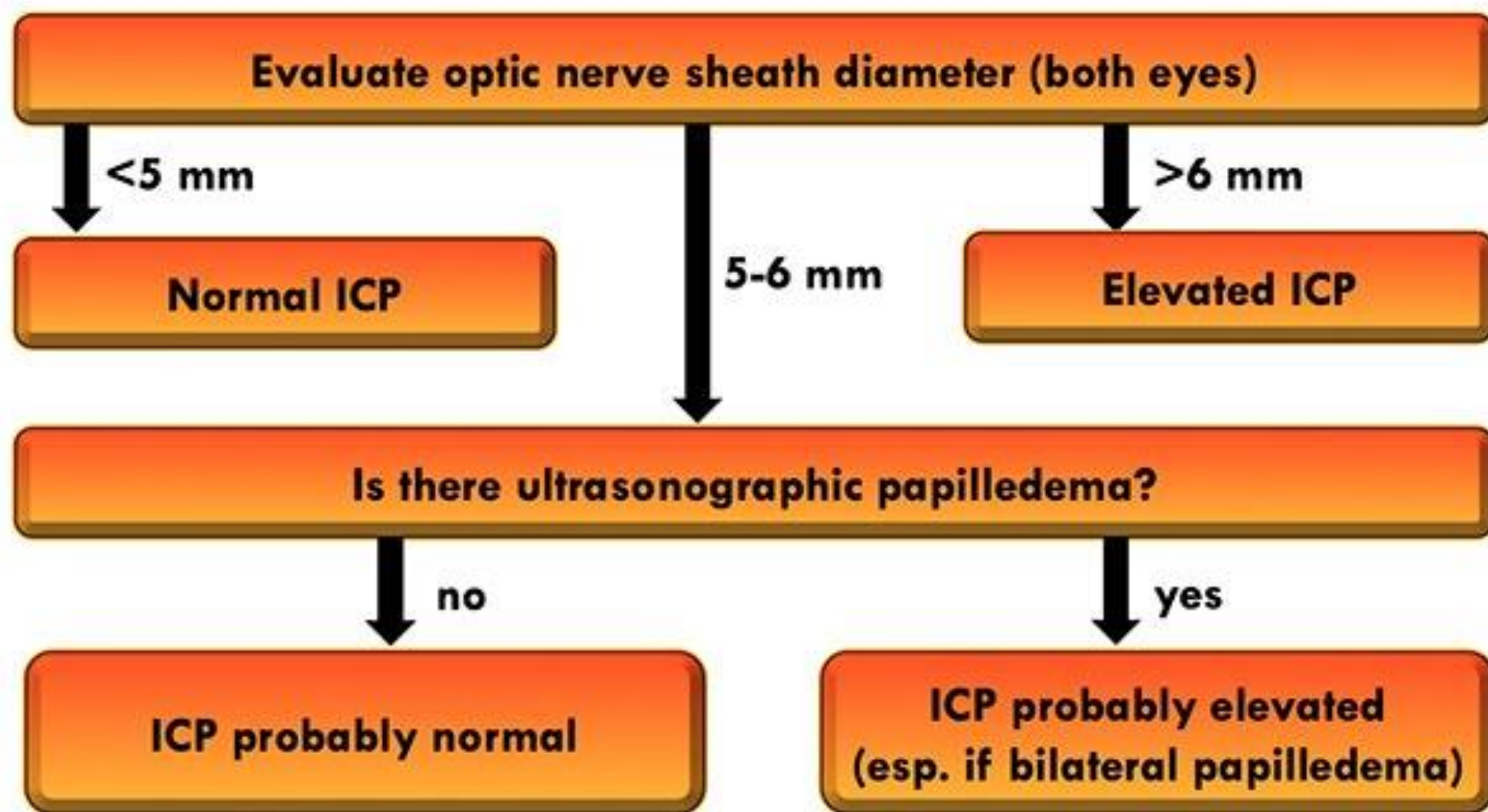


FIGURE 1. Point-of-care ocular ultrasound images demonstrating papilledema. Each image above demonstrates papilledema as evidenced by both increased ONSD and optic disc elevation.

Marchese RF et al. 2015 PMID 25831036

Algorithm to evaluate for ICP elevation using ocular ultrasonography



Transcranial doppler (TCD's)

- Vasospasm days before deficits
- Autoregulation failure
- Rising ICP via PI

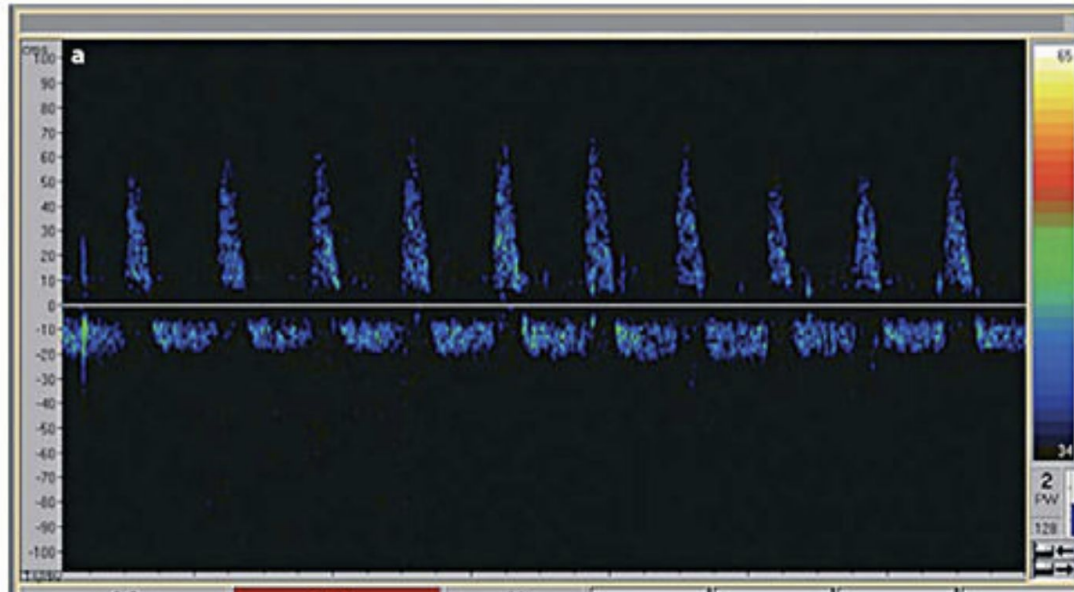
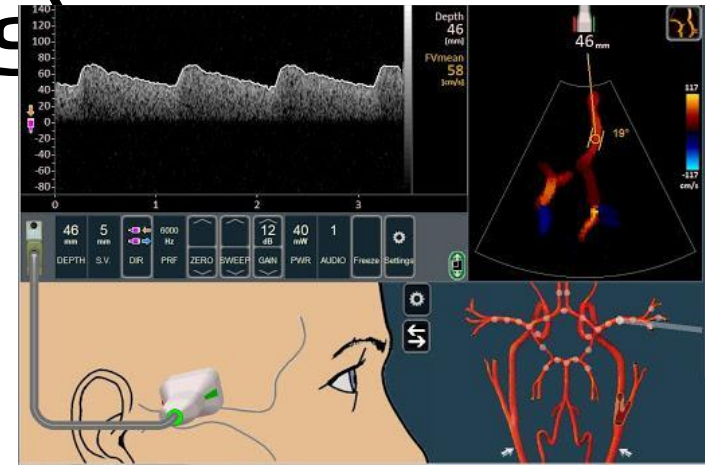


Table 1.6 Lindegaard Ratio

Lindegaard Ratio	Angiographic Vasospasm
<3	No spasm
3–4.5	Mild spasm
4.5–6	Moderate spasm
>6	Severe spasm

NeuroPOCUS: Next in line

Tool	Then	Now
Echo	Cardiology only	ICU routine
FAST	Trauma Specialists	ER standard
Lung US	Research	ARDS daily
Vascular US	Radiology	Line placement

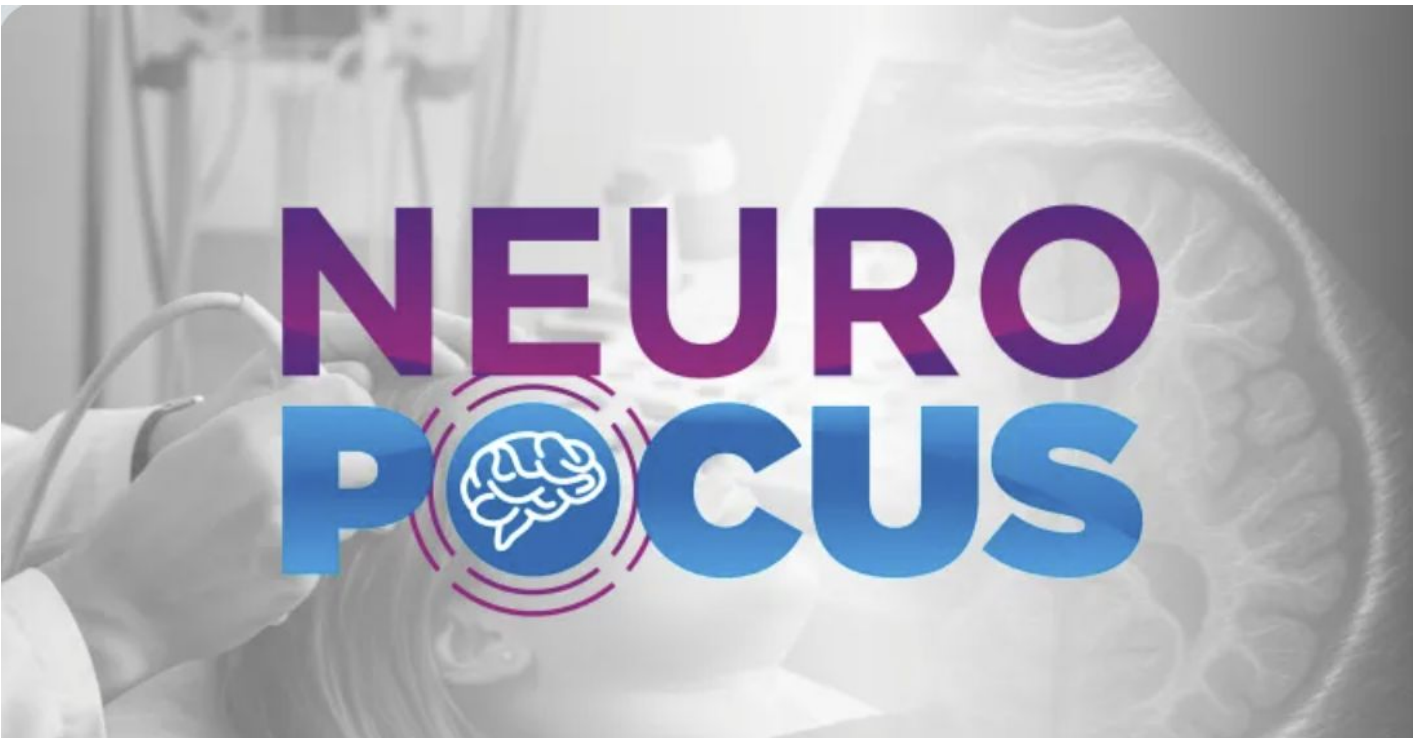


Improves Patient Safety & Quality

Without	With
Blind Hypertonic Saline	ICP-guided therapy
MAP guessing	CPP-informed targets
Late Vasospasm	Early Rescue
Unsafe Transports	Bedside decision-making

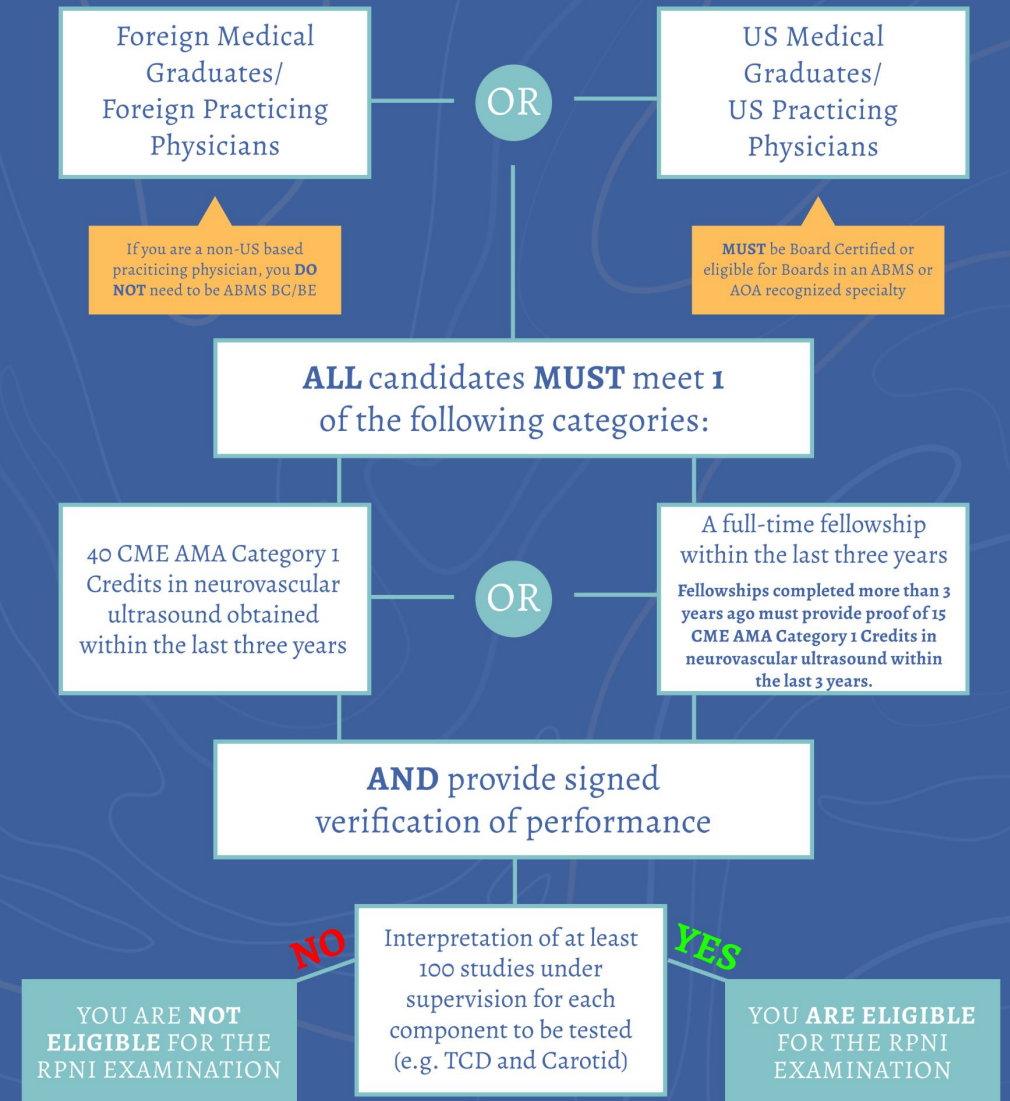
Training is the answer





- Training
- Credentialing
- Standardization

Are you eligible for the Neurosonology (RPNI) examination?



NeuroPOCUS Is How We Democratize Brain Monitoring

- Resource-limited settings
 - CT is delayed or unavailable
 - ICP monitors are rare
- NeuroPOCUS makes:
 - Advanced neurophysiology portable



The brain
deserves the
same
monitoring as
the heart and
lungs



In conclusion:



**NeuroPOCUS is
not a specialized
diagnostic
weapon**

**It is a multimodal
bedside
physiologic
platform**



¡Gracias!



Puerto Rico

Commonwealth of the United States

Capital: San Juan

Currency: US Dollar

Population: 3.725 million

Anthem: La Borinqueña

Official Language: Spanish and English

Location: Island in the Caribbean

Climate: Tropical Marine

Coordinates: 18°15'N 66°30'W

Time Zone: Atlantic Standard

Total Area: 9.104 Sq. Km

(3515 Sq. Mi.)

10 Fun Facts About Puerto Rico

1. El Yunque is the only tropical rainforest under the U.S. Forest Service jurisdiction.



La Loca Falls

Top Bioluminescent Bays
in Puerto Rico



2. Puerto Rico's bioluminescent bays (bio bays) are world-renowned natural wonders where microscopic organisms called dinoflagellates create an ethereal blue glow when disturbed.



3. **El coquí** is a tiny tree frog named after the loud sound that it makes; it is also the “unofficial mascot” of Puerto Rico.

 **Music**
HALFTIME SHOW



4. Bad
Bunny

6. **Monica Puig** is Puerto Rico's first Olympic Gold Medalist. Yes, although Puerto Rico is a Commonwealth of the United States, it can still send their athletes to represent us in the Olympics.

Monica Puig Makes Olympic History, Winning Puerto Rico's First Gold Medal

August 13, 2016 · 6:51 PM ET

BILL CHAPPELL



7. Puerto Rico is home to the one of the most important archaeological site in the **Caribbean of the Igneri, pre-Taíno and Taíno** cultures of ancient Puerto Rico at the **Tibes Indian Ceremonial Center**.





8. El Morro (Castillo San Felipe del Morro) in Puerto Rico is famous as a massive 16th-century Spanish fortress in Old San Juan, known for its imposing military architecture, strategic defense of San Juan Bay, iconic ocean views, UNESCO World Heritage status, and as a symbol of Puerto Rican resilience against invaders like Sir Francis Drake.



9. Mofongo is a classic, hearty Puerto Rican dish made from fried green plantains mashed with garlic, olive oil, and pork cracklings (chicharrón) in a mortar (pilon).



10. The Piña Colada is a sweet, rum-based tropical cocktail made with rum, cream of coconut, and pineapple juice. It is the national drink of Puerto Rico and is typically served blended or shaken with ice..



I LIVE WHERE YOU VACATION