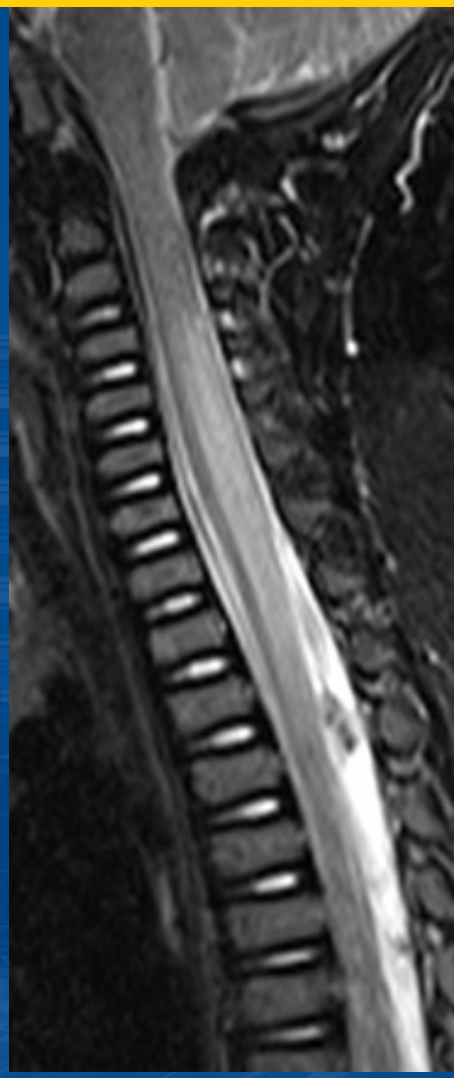
# Identifying Relapses vs Temporary Worsening of Symptoms



Paula Barreras, MD

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# Background

- Some neuroinflammatory disorders like NMOSD, MOGAD, MS, ADEM, sarcoidosis and some causes of myelitis can have relapses.
- Early identification leads to early management.
- Not all symptoms indicate a relapse.

# Relapse

- New event or “attack” of neurological injury
- New symptoms or significant worsening in old symptoms
- Caused by a new inflammation in the brain or spinal cord
- In most cases this is associated with new lesions in MRI

# Relapse

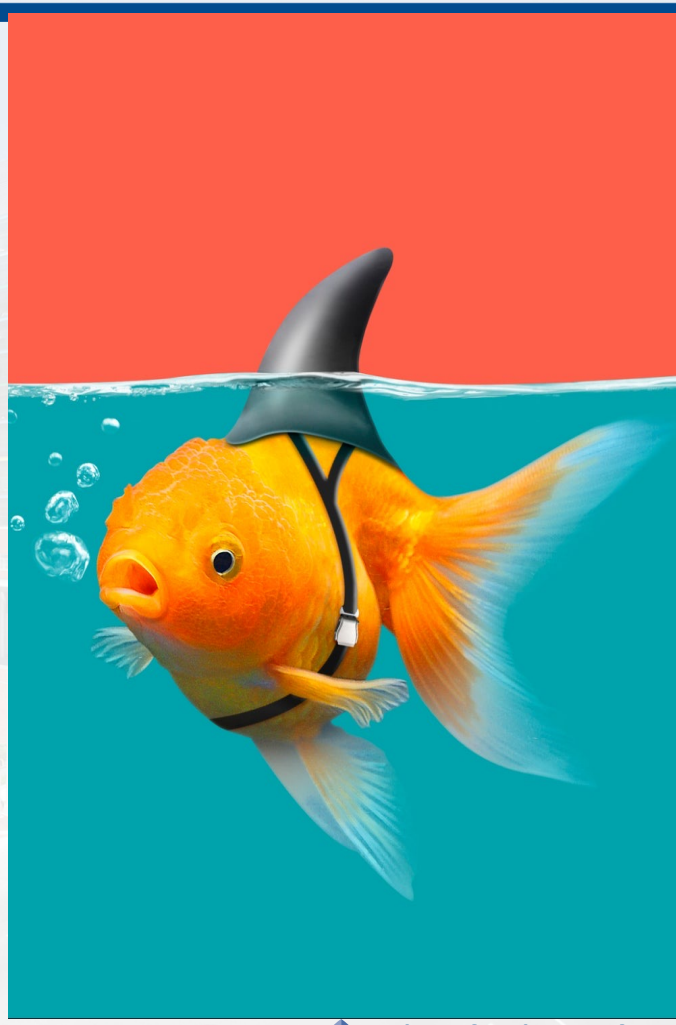
- Progress over hours to days.
- Lasts >24 hours.
- Symptoms “localize” – attributable to a specific part of the nervous system
- Usually requires additional treatment to prevent disability

# What to do?

- Let your doctor know.
- Time progression of symptoms
- Requires evaluation by a neurologist
- Usually requires MRI
- May require treatment with steroids.
- May indicate “treatment failure” and lead to change in therapy

# Pseudo-Relapse

- Other terms: Recrudescence, Pseudo-exacerbation, Pseudoflare.
- Temporary worsening of old symptoms
- Not caused by new inflammation in the brain or spinal cord.
- Usually due to stress on the body
- <24 hours
- Reversible
- No new lesion in MRI
- Do not affect the course of the disease



# Pseudo-Relapse

- After an injury the body compensates
- Stressors can decompensate or break the balance of the system
- Focus is to determine what is stressing the body to bring out old symptoms

# Causes of Pseudo-Relapse

- Fever and overheating
- Infection – Urinary track infections most common
- Surgery
- High blood sugar in diabetes
- Electrolyte abnormalities
- Intoxication- drugs-alcohol
- Psychological stress/ depression
- New medications

# What symptoms suggest a true Relapse?

- Completely new symptoms
- Marked and sustained worsening of old symptoms

- For Optic neuritis:
  - Loss of vision in one eye
  - Pain with eye movements
  - Abnormal color vision
- Myelitis
  - Weakness in both legs
  - Numbness in both legs
  - Bowel and urinary retention or incontinency
  - Ascending symptoms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# Symptoms less likely to be Relapse

- Isolated increase in pain or spasticity
- Isolated increased urinary frequency
- Worsening fatigue
- Generalized weakness
- Tingling or pins and needles without other symptoms
- Brain fog
- Headache without vision changes
- Symptoms fluctuate
- Symptoms that don't "localize": no single lesion in the CNS would cause them

# Why is this important

- Recognizing pseudo-relapses prevents unnecessary testing and treatments

- May lead to identification of infections or medical problems that need to be managed differently

# Pseudo-Relapse. What to do?

- Keep track of old symptoms and dates of prior relapses to be able to compare
- Time your symptoms – 24 hour rule
- Check your temperature
- Try to identify the stressors and remove them (heat, sleep, stress)
- See if your urine has strong smell or looks cloudy

# What to do?

- Let your doctor know! Even if no true relapse work up may be indicated.
- Usual testing includes blood work, urine analysis and sometimes chest x ray

# Exception to the rule

- It is possible to have repeat attacks in the same area and re-experience old symptoms in true relapses.

- If anything is rapidly worsening seek immediate medical care even if less than 24 hours

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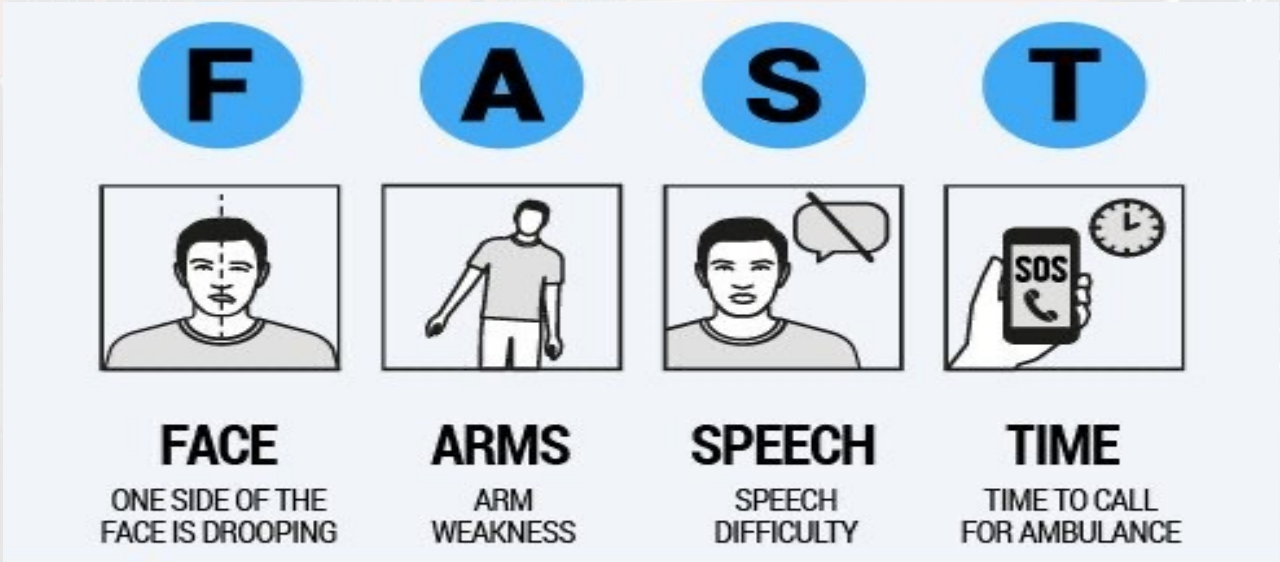
# A word of caution

- People with neuroimmunological disorders who have cardiovascular risk factors can also have strokes
- Learn to identify a stroke and if in doubt, don't wait!

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# Conclusion

- Patients with neuroimmunological disorders can experience symptoms due to relapses, pseudo-relapses or other neurological conditions.
- Differentiating relapses from pseudo-relapses is important to avoid misdiagnosis, overtreatment and guide management.
- The type of symptom and temporal evolution of the symptoms are key to make the right diagnosis.

# Questions