Classification of Acquired Inflammatory CNS Demyelination in Children*  
A Diagnostic Algorithm for Healthcare Professionals

**FIRST ATTACK OF Demyelination**

- Symptoms localize to multiple CNS sites
  - With encephalopathy
    - CIS with clinically polyfocal deficits (not meeting 2017 criteria for MS) → ADEM
  - Without encephalopathy
    - CIS with clinically polyfocal deficits (meeting 2017 criteria for MS diagnosis)

- Clinically isolated syndrome (CIS) localizing to one CNS site
  - Clinically-silent lesions on MRI
    - CIS without MRI features meeting 2017 criteria for MS diagnosis at baseline → Multiple sclerosis
    - CIS with MRI features meeting 2017 criteria for MS diagnosis at baseline → Multiphasic ADEM
    - CIS with ON/TM/brainstem or diencephalon symptoms, +/- NMO IgG, +/- MOG IgG, +/- MRI features, meeting criteria for NMOSD at first attack
  - No clinically-silent lesions → Isolated CIS

**FURTHER DEMYELINATING ATTACKS**

- Disseminated in space and time, either evidenced by two or more non-ADEM attacks, or by accrual of new T2 lesions → Multiple sclerosis
- Disseminated in space and time involving optic nerves and/or spinal cord and/or brainstem/diencephalon, with/without NMO IgG, +/- MOG IgG → Relapsing NMOSD or MOG associated demyelination → Monophasic demyelination