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 2010 criteria for MS)
    - ADEM
  - Without encephalopathy
    - CIS with clinically polyfocal deficits (meeting 2010 criteria for MS diagnosis)
    - CIS without MRI features meeting 2010 criteria for MS diagnosis at baseline
    - CIS with MRI features meeting 2010 criteria for MS diagnosis at baseline
    - CIS with ON/TM/brainstem or diencephalon symptoms, +/- NMO IgG, +/- MRI features meeting criteria for NMOSD at first attack
    - Isolated CIS

- Clinically isolated syndrome (CIS) localizing to one CNS site
  - Clinically-silent lesions on MRI
  - No clinically-silent lesions

FURTHER DEMYELINATING ATTACKS

- ADEM
  - Mono or polyfocal second attack after ADEM without encephalopathy + accrual of clinically silent lesions
    - Multiple sclerosis
  - Second polyfocal event with encephalopathy beginning ≥ 3 mos. after onset of first ADEM (new or re-emerging areas of involvement)
    - Multiphasic ADEM

- 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, meeting criteria for NMOSD
  - Multiple sclerosis
  - Relapsing NMOSD

- NO FURTHER DEMYELINATING ATTACKS
  - Monophasic demyelination