NMOSD ENCOMPASSES A SPECTRUM OF PATIENTS[1,2]

AQP4-IgG SEROPOSITIVE (~75%)

- Generally follows relapsing disease course[3,4]
- Often demonstrates co-existing autoimmunity [5]
- Motor symptoms, long spinal cord lesions, and a higher total spinal cord lesion load were more frequently observed relative to seronegative patients[5]
- Brain involvement may occur in AQP4-rich regions, eg, periependymal regions in the diencephalon and brainstem[6,7]

AQP4-IgG SERONEGATIVE (~25%)

- More frequently monophasic[5]
- Fewer signs of co-existing autoimmunity[5]
- Bilateral ON and ON co-existing with myelitis were found to be more common at onset vs seropositive[5]
- Lower disability levels vs seropositive and fewer instances of severe disability[8]
- Brain involvement is uncommon, except in MOG-positive patients, in whom lesions can be more frequent and nonspecific[9]

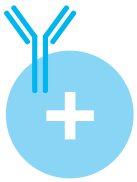
A cell-based assay is strongly recommended for the detection of AQP4-IgG. The likelihood of a false-negative result, relative to the cell-based methodology, is greater with ELISA.[4]

ELISA=enzyme-linked immunosorbent assay; MOG=myelin oligodendrocyte glycoprotein; ON=optic neuritis.

References: 1. Wingerchuk DM, et al. *Lancet Neurol.* 2007;6:805-815. **2.** Lennon V, et al. *Lancet.* 2004;364:2106-2112. **3.** Kawachi I, et al. *J Neurol Neurosurg Psychiatry.* 2017;88:137-145. **4.** Wingerchuk DM, et al. *Neurology.* 2015;85:177-189. **5.** Jarius S, et al. *J Neuroinflammation.* 2012;9:14. **6.** Takahashi T, et al. *Brain.* 2007;130:1235-1243. **7.** Kim H, et al. *Neurology.* 2015;84(11):1165-1173. **8.** Akman-Demir G, et al. *J Neurol.* 2011;258:464-470. **9.** de Seze J. *Brain.* 2017;140:3069–3080.

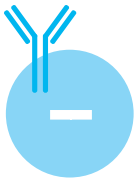
WITH A POSITIVE TEST FOR AQP4-IgG, ONLY ONE CORE CLINICAL CHARACTERISTIC IS NEEDED TO ESTABLISH A DIAGNOSIS OF NMOSD

NMOSD DIAGNOSTIC CRITERIA FOR ADULT PATIENTS



AQP4-IgG+

1. At least 1 core clinical characteristic
2. Exclusion of alternative diagnoses



AQP4-IgG(-) or Unknown/Unavailable

1. At least 2 core clinical characteristics meeting all of the following requirements:
   a. At least 1 core clinical characteristic must be optic neuritis, acute myelitis with LETM, or area postrema syndrome
   b. Dissemination in space (2 or more different core clinical characteristics)
   c. Fulfillment of additional MRI requirements, as applicable
2. Exclusion of alternative diagnoses

CORE CLINICAL CHARACTERISTICS

Optic neuritis

Acute myelitis

Area postrema syndrome

Symptomatic cerebral syndrome with NMOSD-typical brain lesions

Symptomatic narcolepsy or acute diencephalic clinical syndrome

Acute brainstem syndrome

LETM=longitudinally extensive transverse myelitis.

Reference: Wingerchuk DM, et al. *Neurology.* 2015;85:177-189.

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