### 2010 Revised McDonald Diagnostic Criteria for MS
Diagnosis of MS requires elimination of more likely diagnoses and demonstration of dissemination of lesions in space and time

<table>
<thead>
<tr>
<th>CLINICAL (ATTACKS)</th>
<th>LESIONS</th>
<th>ADDITIONAL CRITERIA TO MAKE DX</th>
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</thead>
<tbody>
<tr>
<td>2 or more</td>
<td>Objective clinical evidence of 2 or more lesions or objective clinical evidence of 1 lesion with reasonable historical evidence of a prior attack</td>
<td>None. Clinical evidence alone will suffice; additional evidence desirable but must be consistent with MS</td>
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<tr>
<td>2 or more</td>
<td>Objective clinical evidence of 1 lesion</td>
<td>Dissemination in space, demonstrated by: ~ 1T2 lesion in at least two MS typical CNS regions (periventricular, juxtacortical, infratentorial, spinal cord); OR Await further clinical attack implicating a different CNS site</td>
</tr>
<tr>
<td>1</td>
<td>Objective clinical evidence of 2 or more lesions</td>
<td>Dissemination in time, demonstrated by: Simultaneous asymptomatic contrast-enhancing and non-enhancing lesions at any time; OR A new T2 and/or contrast-enhancing lesions(s) on follow-up MRI, irrespective of its timing; OR Await a second clinical attack</td>
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<tr>
<td>1</td>
<td>Objective clinical evidence of 1 lesion</td>
<td>Dissemination in space, demonstrated by: ~ 1T2 lesion in at least two MS typical CNS regions (periventricular, juxtacortical, infratentorial, spinal cord); OR Await further clinical attack implicating a different CNS site AND Dissemination in time, demonstrated by: Simultaneous asymptomatic contrast-enhancing and non-enhancing lesions at any time; OR A new T2 and/or contrast-enhancing lesions(s) on follow-up MIR, irrespective of its timing; OR Await a second clinical attack</td>
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<tr>
<td>0 (progression from onset)</td>
<td>Objective clinical evidence of 1 lesion</td>
<td>One year of disease progression (retrospective or prospective) AND at least 2 out of 3 criteria: Dissemination in space in the brain based on ~1 T2 lesion in periventricular, juxtacortical or infratentorial regions; Dissemination in space in the spinal cord based on ≥2 T2 lesions; OR Positive CSF</td>
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Further Information on Diagnosing MS

What Is An Attack?
- Neurological disturbance of kind seen in MS
- Subjective report or objective observation
- At least 24 hours duration in absence of fever or infection
- Excludes pseudo attacks, single paroxysmal symptoms (multiple episodes of paroxysmal symptoms occurring over 24 hours or more are acceptable as evidence)
- Some historical events with symptoms and pattern typical for MS can provide reasonable evidence of previous demyelinating event(s), even in the absence of objective findings

Determining Time Between Attacks
- 30 days between onset of event 1 and onset of event 2

What Provides Evidence for Dissemination in Space?
- $\geq 1$ T2 lesion in at least two out of four areas of the CNS: periventricular, juxtacortical, infratentorial, or spinal cord
- Gadolinium enhancement of lesions is not required for DIS
- If a subject has a brainstem or spinal cord syndrome, the symptomatic lesions are excluded and do not contribute to lesion count

What Provides MRI Evidence of Dissemination in Time?
- A new T2 and/or gadolinium-enhancing lesion(s) on follow-up MRI, with reference to a baseline scan, irrespective of the timing of the baseline MRI OR
- Simultaneous presence of asymptomatic gadolinium-enhancing and non-enhancing lesions at any time

What is Positive CSF?
Oligoclonal IgG bands in CSF (and not serum) or elevated IgG index