Selecting DMT: Pharmacologic Considerations

- Different DMTs have different efficacy and safety profiles, but no clear gold standard
- SPMS: often continue DMT used in RRMS phase, if still effective
- PPMS: ocrelizumab
- Other pharmacologic considerations
 - Comorbidities and concurrent medications
 - Safety profiles and tolerability of certain adverse events
 - Specific MS profiles
 - ie, for high activity MS higher efficacy therapy preferred
 - Anti-JVC antibody index >0.9 natalizumab associated with increased risk of developing PML

DMT, disease-modifying therapy; JVC, John Cunningham virus; PML, progressive multifocal leukoencephalopathy; PPMS, primary progressive multiple sclerosis; RRMS, relapsing-remitting multiple sclerosis; SPMS, secondary progressive multiple sclerosis. Rae-Grant A et al. *Neurology*. 2018;90:777-788.

Selecting DMT: Nonpharmacologic Considerations

- Lifestyle issues involving route of administration
- Likely adherence
- Cost
- Reproductive planning
 - Timing of DMT in relation to pregnancy
 - Certain drugs should be avoided in women or men planning to conceive

Switching DMT: Considerations

- Poor efficacy
 - AAN guidelines recommend discussing switching if observe any of the following over the course of a year
 - ≥1 relapse
 - ≥2 unequivocally new MRI-detected lesions
 - Increased disability on exam
 - Degree of disease activity, adherence, and AE profile and mechanism of action of new DMT should influence therapy choice
- Intolerable discomfort with injections or injection fatigue
 - Consider noninjectable or less frequently injected DMT
- AEs intolerable or affect adherence
- Persistent laboratory anomalies occur

AAN, American Academy of Neurology; AE, adverse event; DMT, disease-modifying therapy. Rae-Grant A et al. *Neurology*. 2018;90:777-788.

Stopping DMT for SPMS: Considerations

- AAN guidelines state that clinicians may advise stopping to individuals at low risk of relapse and who have not been ambulatory for ≥2 years
 - Treatment benefits may no longer outweigh potential harm
 - Factors to consider when assessing risk of relapse include
 - Older age
 - Longer disease duration
 - Longer duration free of relapse or MRI-detected activity