Multiple Sclerosis Clinic

Rotation Director: Dr. Andrew Romeo

Clinic days: Monday-Friday, 8:00AM-5:00PM

Resident continuity clinic: Wednesdays PM

Days off: Thursday PM, Friday PM, weekends, holidays

MA: Kim Duval (completing forms, setting up labs/tests/resources for patients)

Rotation components:

1. Clinic attendance
   - Monday, Tuesday, Friday Clinics: morning and afternoons, Taubman Center, 1st floor, Reception C
   - Thursday: 7:30AM-12:00PM, Ann Arbor VA Clinic, Floor 1, Station 14
2. Neuroimmunology Case Conference
   - Tuesdays: 12:00PM-1:00PM, UH South, Floor 3, Room L3113
3. Wednesday Conferences
   - Patient conference and Grand Rounds: 9:30AM-11:30AM, Cardiovascular Center, Floor 2, Danto Auditorium

Patient Resources: News, disease/treatment information brochures, support groups, financial aid/patient assistance programs

- Disease-Modifying Therapies for MS (patient information packet)
- National Multiple Sclerosis Society
- Multiple Sclerosis Association of America

Clinic Schedule:

- MiChart clinical context: "TC NEU MULTIPLE SCLEROSIS 02"
- After patient arrives, right-click patient name and select "Change provider to me" (don't do this before arrival, otherwise schedulers will see open blocks and schedule patients into those time slots)

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<th>AM</th>
<th>PM</th>
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<tr>
<td>Monday</td>
<td>Taubman MS Clinic</td>
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<td>Attending: Braley</td>
<td>Attending: Romeo</td>
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<td>Tuesday</td>
<td>Taubman MS Clinic</td>
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<td>Attending: Irani</td>
<td>Attending: Irani/Mao-Draayer</td>
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<td>Wednesday</td>
<td>Wednesday morning conferences</td>
<td>Resident continuity clinic</td>
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<td>9:30AM-11:30AM</td>
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<td>Danto Auditorium</td>
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<td>Thursday</td>
<td>AAVA MS Clinic</td>
<td>Teaching Romeo</td>
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<td>Attendants: Braley, Romeo</td>
<td>Reading time</td>
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<td>Friday</td>
<td>Taubman MS Clinic</td>
<td>Reading time</td>
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<td>Attending: Romeo</td>
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Clinical Resources:

- How to send JC virus antibody in MiChart:
  - Miscellaneous Send-out: type in serum JC virus ab stratify 91665; source=serum; diagnosis=MS
  - Send out lab is Quest Diagnostics
  - Lab location: 1947 Technology Drive, Troy, MI 48108 - (866)697-8378
March 2019: FDA approves cladribine (Mavenclad) for adults with relapsing-remitting multiple sclerosis and active secondary progressive disease (FDA)

March 2019: FDA approves siponimod (Mayzent) for relapsing-remitting multiple sclerosis and secondary progressive multiple sclerosis (FDA)

March 2019: Imaging outcome measures of neuroprotection and repair in MS (NAIM consensus statement)

November 2018: FDA warns about rare but serious risks of stroke and blood vessel wall tears with multiple sclerosis drug Lemtrada (alemtuzumab) (FDA)

November 2018: Gilenya (fingolimod): Drug Safety Communication - Severe Worsening of Multiple Sclerosis After Stopping the Medicine (FDA)

October 2018: Results Reported from Innovative “IMS-MSMART” Clinical Trial in Secondary Progressive MS Presented at ECTRIMS (National MS Society)

October 2018: Assessment of Efficacy and Tolerability of Medicinal Cannabinoids in Patients With Multiple Sclerosis: A Systematic Review and Meta-analysis (JAMA)

May 2018: FDA expands approval of Gilenya to treat multiple sclerosis in pediatric patients (FDA); see also PARADIGMS: Trial of Fingolimod versus Interferon Beta-1a in Pediatric Multiple Sclerosis (NEJM)

April 2018: Durable Clinical Efficacy of Alemtuzumab in Patients With Active RRMS in the Absence of Continuous Treatment: 7-Year Follow-up of CARE-MS I Patients (TOPAZ Study) (P6.376) (AAN); Durable Clinical Outcomes With Alemtuzumab in Patients With Active RRMS in the Absence of Continuous Treatment: 7-Year Follow-up of CARE-MS II Patients (TOPAZ Study) (P6.369) (AAN)

March 2018: Biogen and Abbvie announce voluntary withdrawal of ZINBRYTA (Daclizumab) (Biogen)

March 2018: Siponimod versus placebo in secondary progressive multiple sclerosis (EXPAND); a double-blind, randomised, phase 3 study (Lancet)

UPDATED 2017 McDonald Criteria for the Diagnosis of Multiple Sclerosis (Lancet Neurol 17:162-173)

(Click to enlarge)
Summary of Treatments in Multiple Sclerosis: see Multiple Sclerosis wiki page

Guidelines/Practice Parameters:

April 2018: Practice guideline recommendations summary: Disease-modifying therapies for adults with multiple sclerosis (AAN)
February 2018: Guideline on the pharmacological treatment of people with multiple sclerosis (ECTRIMS/EAN)
January 2014: Assessment and management of psychiatric disorders in individuals with MS (AAN)
March 2014: Complementary and alternative medicine in multiple sclerosis (AAN)
December 2011: Clinical evaluation and treatment of transverse myelitis (AAN)
March 2007: Neutralizing antibodies to Interferon-beta (AAN)
May 2000: The usefulness of evoked potentials in identifying clinically silent lesions in patients with suspected MS (AAN)

Clinical Trials and Systemic Reviews/Meta-Analyses for MS Treatments

• Disease-modifying therapies for adults with multiple sclerosis (AAN, April 2018)
• Immunomodulators and immunosuppressants for relapsing-remitting multiple sclerosis: a network meta-analysis (Cochrane, September 2015)
• Treatment with disease-modifying drugs for people with a first clinical attack suggestive of multiple sclerosis (Cochrane, April 2017)
• Rehabilitation in multiple sclerosis (AAN, November 2015)

• DMT - Oral Agents
  • Dimethyl fumarate for multiple sclerosis (April 2015)
  • Teriflunomide for multiple sclerosis (March 2016)
  • Fingolimod for relapsing-remitting multiple sclerosis (April 2016)

• DMT - Injections
  • Glatiramer acetate for multiple sclerosis (May 2010)
  • Interferon in relapsing-remitting multiple sclerosis (October 2001)
  • Interferons-beta versus glatiramer acetate (November 2016)
  • Interferon beta or glatiramer acetate for delaying conversion of CIS to MS (April 2008)
  • Interferon beta for primary progressive multiple sclerosis (January 2010)
  • Interferon beta for secondary progressive multiple sclerosis (January 2012)
  • Daclizumab for relapsing remitting multiple sclerosis (December 2013)

• DMT - Infusions
  • Ocrelizumab versus interferon beta-1a in relapsing multiple sclerosis (OPERA I and II, NEJM 2017)
  • Ocrelizumab versus placebo in primary progressive multiple sclerosis (ORATORIO, NEJM 2017)
  • Rituximab for relapsing-remitting multiple sclerosis (December 2013)
    B-cell depletion with rituximab in RRMS (NEJM 2008)
  • Natalizumab for relapsing remitting multiple sclerosis (October 2011)
  • Alemtuzumab for multiple sclerosis (April 2016)
    Treatment effectiveness of alemtuzumab compared with natalizumab, fingolimod, and interferon beta in RRMS (Lancet 2017)
Mitoxantrone for in multiple sclerosis (May 2013)

- Corticosteroids
  Oral versus intravenous steroids for treatment of relapses in multiple sclerosis (December 2012)