



Mandell Center Medication Protocol: Tysabri (natalizumab)

Indications and usage:

- For relapsing forms of multiple sclerosis, to include clinically isolated syndrome, relapsing-remitting disease, and active secondary progressive disease, in adults.
- *TYSABRI is available only through a restricted program under a REMS called the TOUCH® Prescribing Program because of the risk of PML.*

Prior to initiating Tysabri, the following are required:

Labwork: to be completed within 3 months of initiating Tysabri

- CBC with differential
- Liver Profile
- Anti-JCV Antibody

Imaging:

- MRI Brain with and without contrast– within 4 months for initiating Tysabri or at provider discretion.

Vaccinations:

- No data is available on the effects of vaccination in patients receiving TYSABRI.

Contraception:

- TYSABRI may cause fetal harm. TYSABRI should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.
- *Since no DMTs are approved for use during pregnancy, it is key that clinicians and patients clearly understand the importance of birth control measures as well as the risks associated with DMT discontinuation and early pregnancy exposure.²*

Tisovic K, Amezcua L. Women's health: contemporary management of MS in pregnancy and post-partum. Biomedicines 2019;7.

Preparation for Administration:

- A driver is required for patients receiving IV Benadryl.
- Infection assessment: Prior to every infusion of TYSABRI, determine whether there is an active infection. In case of active infection, delay infusion of TYSABRI until the infection resolves.
- RN to assess patient each visit; any change in patient status or abnormal vital signs are to be reported to the provider prior to administration to determine if drug is to be administered. Vital signs including systolic BP > 160, diastolic BP > 100, pulse > 100, temperature > 100 degrees, and pulse oximetry < 95% are to be reported to provider before initiating treatment.
- Vital signs to be performed before drug administration and after administration of Tysabri; vital signs to be performed additionally PRN.



Pre-infusion medications as follows:

- Acetaminophen (Tylenol), 975mg, oral, once prior to each infusion for the first 6 infusions.
- Diphenhydramine (Benadryl), 50mg/mL, **50mg(1mL)**, IVP over 2-3 minutes, given prior to each infusion for **doses 1-3**.
- Diphenhydramine (Benadryl), 50mg/mL, **25 mg (0.5mL)**, IVP over 2-3 minutes, given prior to each infusion for **doses 4-6**.
 - If intolerant to Benadryl, administer Famotidine (Pepcid) 20mg/2mL, IVP over 2-3 minutes, given prior to each infusion for **doses 1-6**.

Recommended Dosage and Administration:

- Natalizumab (Tysabri) TYSABRI 300 mg in 100 mL 0.9% Sodium Chloride Injection, USP, over approximately one hour (infusion rate approximately 5 mg per minute) once every 28 days.
 - Extended dosing interval may be considered per provider discretion.
- Observe patients during the infusion and for one hour after the infusion is complete. Promptly discontinue the infusion upon the first observation of any signs or symptoms consistent with a hypersensitivity-type reaction.
- Sodium Chloride 0.9% (NS) IV Bolus, 500mL, once over 1 hour, after each Tysabri infusion during observation period (provider to be notified if patient refuses).
- If patient desires to leave prior to required one-hour observation period, they must sign out AMA.

Emergency Medications:

For allergic reaction or suspected allergic reaction:

- **Stop infusion**
- NS, 500mL, IV, run to gravity.
- Notify provider.
- Administer Methylprednisolone (Solu-medrol) INJ dose, 125mg, IVP once.
 - Decadron, 4mg, IVP, if patient is intolerant to Solu-medrol.
- Benadryl, 25mg, IVP over 2-3 minutes, prn for rash, may repeat once.
 - Famotidine, 20mg/2mL IVP if intolerant to Benadryl.
- Await further instructions from provider, medications may include:
 - Atropine, 0.5mg IV push, every 3-5 minutes up to 2mg maximum dosage PRN for S/S bradycardia.
 - Epinephrine, 0.1mg, IV push, prn for S/S anaphylaxis, may repeat every 5-15 minutes up to max of 0.5MG.
 - Oxygen at 3L/min for SOB as needed.
- Call for transport to ED if indicated by the provider.

Delayed or Missed Dosing:

- Contact provider for delayed or missed dose. Drug holiday or extended interval dosing may be considered.

Patient Counseling/ Discharge Instructions:

- If you experience any discomfort or swelling in your mouth or throat, trouble breathing, weakness, fast/slow/irregular heartbeat, or chest pain – call 911 to be transported to the emergency room.
- If you experience any new neurological symptoms that persist for greater than 24 hours, please contact your provider at the Mandell Center.
- Tylenol may be used as needed for post infusion headache. Please follow the specific instructions on the bottle.
- While receiving TYSABRI, and for 6 months after you stop receiving TYSABRI, call your doctor right away with any new or worsening medical problems that have lasted several days. These may be new or sudden and include problems with thinking, eyesight, strength, balance, weakness on one side of your body, as well as difficulty using your arms and legs.

Follow-up and Monitoring for Tysabri:

- Initial follow up at 3 and 6 months after first infusion.
- Follow-up visit with provider every 4 months for patients with JCV index of greater than or equal to 0.4.
- Follow-up visit with provider every 6 months for patients with JCV index of less than 0.4.
- For at least 6 months after discontinuing TYSABRI.

Labwork:

- If patient has JCV index of \leq 1.5, labs to be performed every 6 months
- If patient has JCV index of $>$ 1.5, labs to be performed every 4 months.
 - CBC with differential
 - Liver profile
 - Anti-JCV antibody

Imaging:

- Brain MRI with and without contrast **6 months** after Tysabri initiation.
- Annual Brain MRI without contrast for patients with JCV index of \leq **0.4**.
- Brain MRI with and without contrast to be ordered every **6 months** with JCV index of **>0.4 to 1.5**.
- Brain MRI with and without contrast to be ordered every **4 months** with JCV index **$>$ 1.5**.
- Annual Cervical Spine MRI for all patients on Tysabri.
- For patients transitioning from Tysabri, MRI brain with and without contrast to be performed for JCV positive patients upon discontinuing Tysabri and at 6 months after discontinuing Tysabri.
- If a recent MRI has been performed coinciding with patient terminating Tysabri, please consult with provider.



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Date

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