Specialty Pharmacy Care Management for Treatments for Multiple Sclerosis

EDUCATIONAL OBJECTIVES

1. Differentiate the mechanisms, administration methods, and safety data for the approved multiple sclerosis (MS) therapies, particularly newly available agents;

2. Discuss indications and contraindications for each class of MS therapies and the decision-making process involved in selecting an appropriate therapeutic approach;

3. Engage in appropriate and accurate patient education about the selection, dosage, administration, and ongoing use of MS disease-modifying therapies (DMTs);

4. Analyze reasons associated with nonadherence in MS and specify approaches for improving adherence in a range of pharmacy practice settings; and

5. Evaluate Care Management approaches relevant to MS and determine applicability of these approaches in the learner’s practice setting.

Posttest/Rationale

1. A, woman 42 years of age, who was diagnosed with relapsing-remitting multiple sclerosis (RRMS) in 2008 calls you regarding her glatiramer acetate injection 20 mg subcutaneous (SC) daily refill; she has been stable on treatment for more than 2 years. During your telephone encounter, she reports she has recently been skipping some injections. Which of the following is the most appropriate first step in addressing her medication nonadherence:
   - A. Recommend to her prescriber a switch to glatiramer acetate injection 40 mg, 3 times weekly
   - B. Recommend to her prescriber a switch to oral therapy with teriflunomide 14 mg daily
   - C. The first step in addressing medication nonadherence is to identify the underlying reasons for skipping doses to determine the most beneficial strategy to improve adherence***
   - D. Counsel her that injection fatigue is a common occurrence with self-injection therapy and offer to send her some additional materials

Correct answer: C

Although a switch to glatiramer acetate injection 40 mg, 3 times weekly, could be an eventual solution, the most important first step would be to identify the underlying reason for nonadherence. This will help the pharmacist determine the most appropriate course of action because nonadherence can be the result of many reasons with differing solutions.
2. The same woman also mentions that she and her husband are trying to conceive. Which one of the following statements is TRUE regarding glatiramer acetate injection and pregnancy:
   A. Glatiramer acetate injection must be discontinued during pregnancy
   B. Glatiramer acetate injection is pregnancy category B and is the preferred agent for women who are trying to conceive. It may be continued during pregnancy if benefits of continuing outweigh the risks of discontinuing treatment***
   C. MS symptoms always worsen during pregnancy so aggressive treatment is required
   D. A safer alternative would be to switch the patient to oral therapy with dimethyl fumarate

   **Correct answer: B**
   Glatiramer acetate injection is pregnancy category B during all 3 trimesters.

3. A woman, 52 years of age, with RRMS is currently managed with interferon beta-1b 250 mcg subcutaneous (SC) every other day. She is compliant with therapy and reports no changes in her symptoms, except she feels tired most days. A recent MRI found no new or worsening lesion activity and she has not experienced a relapse since starting treatment a year and a half ago. What is the best recommendation regarding her MS treatment with interferon beta-1b?
   A. Switch interferon beta-1b to interferon beta-1a intramuscular (IM) for improved convenience
   B. Discontinue interferon beta-1b and switch to dimethyl fumarate because fatigue is a sign of worsening disease
   C. Recommend a switch to glatiramer acetate injection therapy because she is likely having severe side effects to interferon beta-1b
   D. Continue therapy with interferon beta-1b therapy. She is adherent to every other day injections and has no measurable disease activity since starting treatment***

   **Correct answer: D**
   Disease is not active in terms of measurable progression. Fatigue is likely related to the disease state itself and the patient is compliant without any complaints, so switching to another therapy is unnecessary.

4. A woman, 38 years of age, was diagnosed with RRMS in 2004. She delayed treatment until 2013 at which time she was initiated on glatiramer acetate injection 20 mg SC daily. Over the last 2 years she has experienced 4 hospitalizations caused by relapse and her MRI indicated new lesion activity. Her neurologist would like to start fingolimod 0.5 mg daily. Which one of the following statements is most accurate:
   A. Fingolimod is a good option for this patient, it has a long safety record and should be initiated right away given the severity of her disease
   B. Fingolimod could be a good option, but a baseline risk verses benefit assessment should first be done, which includes a comprehensive medication review, blood tests, eye exam, and electrocardiogram (ECG)***
   C. Fingolimod is not a good option, its efficacy in reducing annual relapse rate is the same as self-injectable DMTs; so she is not likely to experience additional benefit
D. Fingolimod is not a good option because of the risk of macular edema

**Correct answer: B**
Initiation of fingolimod always requires a baseline risk versus benefits assessment. Tests that should always be performed before starting therapy include complete blood count (CBC), liver function tests (LFTs), eye exam, and an ECG, as well as a review of concomitant medication to assess for drugs that may increase risk of torsade de pointes (TdP) or bradycardia.

5. **Which of the following are common treatment initiation strategies:**
   A. Sequential therapy with escalation, treatment induction, combination therapy***
   B. Sequential combination therapy, planned switch, alternate dosing schedule
   C. Treatment induction, maintenance, and combination therapy
   D. Monotherapy, combination therapy, and triple therapy

**Correct answer: A**
Wingerchuk et al describes the 3 most common treatment initiation strategies. The first and most prevalent strategy is sequential monotherapy with escalation; this generally consists of beginning self-injectable or oral therapy and monitoring the patient for disease activity or relapse. A second, more aggressive, approach is to initiate induction therapy with natalizumab, alemtuzumab, or mitoxantrone for a short period of time to induce disease remission with the intention of switching to maintenance therapy with an oral or self-injectable drug. A third is to use combination therapy with two DMTs that exhibit differing, but complementary, mechanisms.

6. **Which one of the following statements regarding medication adherence to DMTs is correct:**
   A. Switching to an alternative method of administration has only a minimal impact on medication adherence
   B. Medication nonadherence is a challenging aspect of MS care management, but the financial impact has not been established; so, most health insurers are uninterested in adherence programs
   C. Medication nonadherence is a challenging aspect of MS care management, some of the most common reasons for nonadherence to self-injectable DMTs include injection anxiety and patients perceptions regarding benefits of treatment***
   D. Most insurance plans prefer infused DMTs over self-injectable therapy because of the higher rates of medication adherence with self-injectable drugs

**Correct answer: C**
Injection anxiety and perceived lack of benefit are major contributors to nonadherence with injectable DMTs. Other factors include tolerability, forgetfulness, and financial burden.
7. You are a pharmacist reviewing the medication profile of a woman, 48 years of age, with RRMS who was initiated on fingolimod 0.5 mg daily 4 months ago. Doing well and compliant, you notice the patient has recently started citalopram 10 mg daily, which was prescribed for depression. She states she has not yet informed her neurologist of the new medication. Which of the following is the best course of action:

A. Simply counsel the patient that depression is commonly associated with MS and it is good she is getting treatment
B. Counsel the patient that, citalopram, used in combination with fingolimod, may increase the risk of a very serious heart arrhythmia or slow her heart rate and recommend she discuss this with her neurologist to reduce the risk of this complication with close monitoring***
C. Counsel the patient that citalopram is associated with QT prolongation, but the effect is dose-dependent and 10 mg daily should be safe in combination with fingolimod, so no further action is necessary
D. Counsel the patient she should immediately discontinue both fingolimod and citalopram because of a drug interaction

Correct answer: B
Fingolimod used in combination with drugs that may cause QT prolongation should be avoided or closely monitored because of an increased risk of bradycardia.

8. All of the following are possible serious risks associated with alemtuzumab infusions, EXCEPT:

A. Severe infusion-related reactions
B. Myelosuppression
C. Secondary malignancies, such as thyroid cancer
D. Progressive multifocal leukoencephalopathy (PML)***

Correct answer: D
Infusion-related reactions, bone marrow suppression, and secondary malignancies are all black box warnings with alemtuzumab.

9. Which one of the following statements is TRUE regarding the economics of MS therapies:

A. The true cost-effectiveness of DMTs in the treatment of MS can be estimated by calculating the number of annual relapses avoided with treatment compared with the number of annual relapses avoided after not treating
B. There is evidence that DMTs may be cost-effective, even with advanced disability
C. In 2013, MS drugs accounted for 2 of the top 5 largest contributors to specialty drug spending***
D. Patients with health insurance should not have an issue affording their monthly refills

Correct answer: C
In 2013, 2 of the 5 largest contributors to specialty drug spending were MS drugs, accounting for 1.8 billion dollars and 19% of new-brand spending.
10. Which one of the following statements is TRUE regarding counseling about self-injectable DMTs:
   A. Allowing the solution to warm to room temperature may reduce injection site reactions***
   B. Icing the injection site pre- and postinjection can help ease pain
   C. Flu-like symptoms generally do not abate, so patients must be counseled on lifestyle modifications to reduce this side effect
   D. In order to reduce injection-related pain, inject and quickly remove the needle to avoid prolonged SC exposure

   Correct answer: A
   This is one strategy that may ease injection site reaction.